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FEDERATION OF MALAYA

REPORT
OF THE
MEDICAL DEPARTMENT
FOR THE YEAR

1955



By

R. E. ANDERSON

B.Sc., M.B., Ch.B., D.P.H., D.T.M. & H.

Director of Medical Services

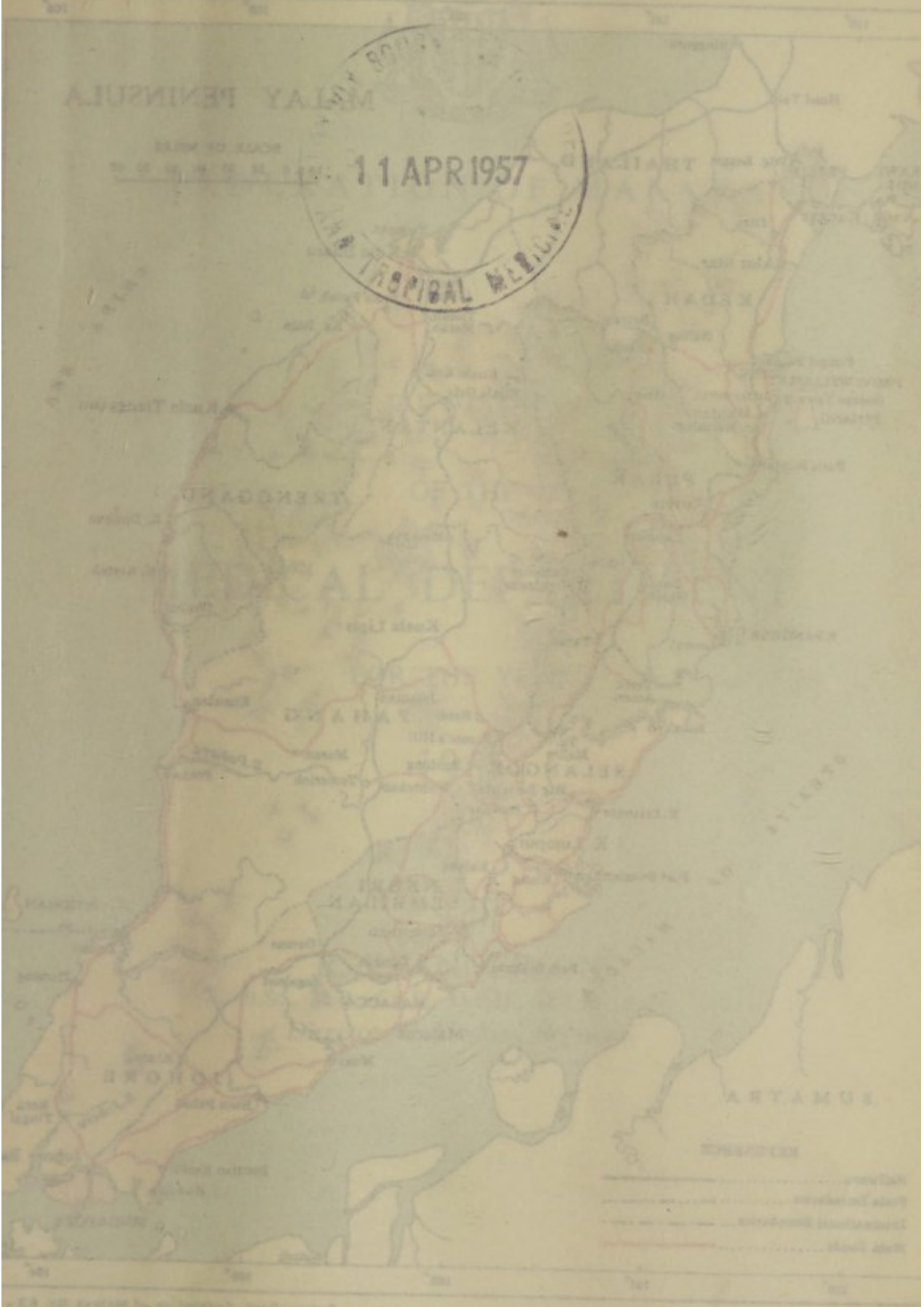
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MALAY PENINSULA

SCALE OF MILES
0 10 20 30 40 50 60 70 80 90 100

11 APR 1957
TROPICAL AIR



Legend:
..... Railway
..... State boundary
..... International boundary
..... Water body

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1957



FEDERATION OF MALAYA

REPORT

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MEDICAL DEPARTMENT

FOR THE YEAR

1955

R. F. ANDERSON
M.S. (Surg.), D.P.H., D.T.M. & H.
Director of Medical Services

INTRODUCTION

To the Honourable Mr. Leong Yew Koh,

Minister for Health and Social Welfare.

SIR,

I have the honour to submit to you the Annual Report for the Federation of Malaya Medical Department for the year 1955.

This is the first report which has been submitted to you, the first Minister for Health and Social Welfare, in the elected Government of the Federation, and while the report is most detailed in respect of institutions under the control of the Federal Government, there is included in the report a brief summary of the activities of institutions under the control of the State and Settlement Governments, compiled from the Annual Reports of the State/Settlement heads of the Medical Department.

The state of health of the territory can be best judged from the improvement in the various mortality rates. The crude death rate is the lowest yet recorded at 11.5 per mille, and the infantile mortality rate while still much higher than the rates recorded in Europe and America, continues to fall steadily and has reached its lowest level yet at 78 deaths per thousand live births. The birth rate still remains at a high level at 43 births per thousand population, and the natural increase of the population at approximately 3 per 100 persons per annum implies a doubling of the population in approximately 25 years. Such figures are a tribute to the work of Medical and Health Services which is reported herein.

The department during the year under review, has been labouring under acute staff shortages marked among doctors and nurses. The resignations among doctors, particularly among local graduates and which have been attributed to the frustration caused by unsatisfactory terms of service, are in reality part of a vicious circle where resignations cause overwork and overwork in its turn causes resignations. Such frustration as has existed has been due to an increasing reluctance on the part of the local doctor particularly to accept the transfers and decisions affecting his family life and future prospects, which are part of a service discipline. It may be that with the decrease in officers of Her Majesty's Overseas Service Medical Branch and the increase of local officers in the

service, the change from a service run on centralised and pensionable basis may have to be replaced by one run on local and superannuation basis. This change in the opinion of the writer would do much to remove the conditions which have accounted for a proportion of the resignations of doctors. It must be added however that until private practice proves to be less lucrative, which can only take place when saturation is reached, the attractions of private practice will prove irresistible to many.

You will be aware too that the far reaching changes affecting the finances of the department, will ultimately go far to act as a stabilizing factor in the Medical and Health Services, and while the effect will not be freely felt until 1957, the opportunity has been taken to attempt to standardize the budget items of expenditure, so that it will be possible to compare the expenditure of one similar unit with another. There are, however, some details of this new system of financing the department which are still undecided, namely anti-malarial expenditure, minor works, and maintenance of departmental buildings. Until a firm decision is given as to whose financial responsibility these matters are whether State or Federal, there will be administrative difficulty. If under the new arrangement the Federation Government is required to find the total funds for the Medical Department, it would be reasonable that any revenue which accrues from departmental activities should be credited to Federal Revenue.

While in accordance with your policy, developments are proceeding to improve the health conditions in rural areas in the Federation, the implementation of such a policy will be costly, though its ultimate effect on improvement to health is undoubted, if pressed forward steadily with emphasis on preventive rather than curative medicine. Such a service cannot be run without adequate trained staff, and without doctors to control and advise in each district health centre. That the health of the rural population has not been improved at the same speed as urban health is perhaps not to be wondered at, when it is considered that staff in the rural areas do not have the amenities of those in the towns. While the capital cost of district health centres and sub-centres, and midwife units, is very largely the cost of providing accommodation for staff, it will be almost impossible to attract staff to the rural areas, if they are not provided with adequate housing and other compensating conditions.

The department has been experiencing much criticism for the state of its hospitals which admittedly are now in many cases half a century old, and are in need of modernization. The critics forget however, that there are 3 large modern hospitals in Johore Bharu, Malacca and Penang, and many of the smaller hospitals, such as Kangar, Kuala Kangsar, Kota Bharu, etc., are in very good order.

Much of the criticism is engendered by the fact that some of the hospitals in the larger towns are indeed in urgent need of modernization to mention, Kuala Lumpur, Taiping, Ipoh and Seremban only. It is of great importance that adequate funds be allocated to modernize these hospitals, to improve the comfort of in-patients, and to provide adequate facilities for the annually increasing number of persons who attend for outdoor treatment.

Finally, in order to implement your policy of Malayanization of the department, it is essential that any training schemes for local officers should receive full financial support and that such schemes should be pushed ahead with the utmost vigour: to enable such schemes to be developed, and at the same time to maintain adequate services to serve the needs of the people, it may still be necessary to recruit on contract terms, officers from overseas, to keep the services running efficiently while the local officer is training to replace him. This applies particularly to the Medical Department where the need to maintain the services, may have the effect of slowing up training unless adequate staff is available.

I have the honour to be,

Sir,

Your obedient servant,

R. E. ANDERSON,

*Director of Medical Services,
Federation of Malaya*

Much of the criticism is engendered by the fact that some of the hospitals in the larger towns are indeed in urgent need of modernization to modern Kuala Lumpur, Ipoh and Seremban. It is of great importance that adequate funds be allocated to modernize these hospitals, to improve the comfort of in-patients and to provide adequate facilities for the annually increasing number of patients who attend for outdoor treatment.

Finally, in order to implement your policy of Metropolitanization of the department, it is essential that any training schemes for local officers should receive full financial support and that such schemes should be pushed ahead with the utmost vigour; to enable technicians to be developed, and at the same time to maintain adequate services to serve the needs of the people, it may well be necessary to recruit on contract terms, officers from overseas to keep the services running efficiently, while the local effort is being developed. This applies particularly to the Medical Department where the need to maintain the services may have the effect of slowing down training unless adequate staff is available.

It is a pleasure to receive your letter of the 15th inst. and to be assured that you are interested in the progress of the department. I have the honour to be, Sir, your obedient servant.

Your obedient servant,
R. E. Anderson

Director of Medical Services,
Federation of Malaya

The following is a list of the names of the officers who are currently serving in the various posts of the department. It is hoped that this will be of some assistance to you in your work. I am, Sir, very truly yours, R. E. Anderson.

I am, Sir, very truly yours,
R. E. Anderson

CONTENTS

	PAGE
INTRODUCTION	iii
—	
PART I	
(1) CLIMATE, AREA AND POPULATION	1
(2) ADMINISTRATION—	
Organisation	2
Expenditure	3
Staff	5
Higher Training	7
Legislation	8
—	
PART II	
PUBLIC HEALTH:	
(1) VITAL STATISTICS—	
Population	8
Births and Deaths	8, 9
Natural Increase	9
Infant Mortality	9
Maternal Mortality	9
Principal Causes of Death	10
(2) SPECIAL DISEASES—	
Malaria	10
Plague and Cholera	11
Smallpox	11
Tropical Typhus	11
Enteric Fever	12
Dysentery and Diarrhoea	13
Diphtheria	13
Influenza	14
Cerebro-Spinal Meningitis	14
Poliomyelitis	14
Yaws	15
Pulmonary Tuberculosis	15
B.C.G. Campaign	16
Venereal Diseases	17

PUBLIC HEALTH—(cont.)	PAGE
(3) NUTRITION—	
Nutrition	17
(4) ESTATES, MINES, RAILWAYS AND QUARANTINE—	
Health on Estates	18
Estate Mortality Rates	18
Estate Hospitals	19
Health on Mines	19
Railway Sanitation	19
Port Health Work	20
(5) RURAL HEALTH SERVICES—	
Rural Health Work	22

PART III

MATERNITY AND CHILD HEALTH—

Maternity and Child Health	23
-----------------------------------	----

PART IV

HOSPITALS AND DISPENSARIES—

Government Hospitals	24
Summary of Hospital Accommodation	25
Notes on Conditions Treated	26
Racial Distribution of Hospital Admissions	26
Out-Patients	27
Surgical Work	27
Ophthalmological Work	27
Radiological Work	27
Physiotherapy	27

PART V

TRAINING OF NURSES—

Training of Nurses	27
Male Nurses	29
Assistant Nurses	29
Nurses Hostel	30
School of Nursing, Northern Region, Penang	30
Recruitment of Nurses	31

APPENDICES

				APPENDIX
Report of the Medical Council	...	...	...	A
Report of the Dental Board	...	...	...	B
Report of the Pharmacy Board	...	...	...	C
Report of the Nursing Board	...	...	...	D
Report of the Malaria Advisory Board	...	...	...	E

STATISTICAL TABLES

		PAGE
Table	1. Return of Diseases and Deaths: Hospital In-Patients	68
..	1A. Statement of General, District and Maternity Hospitals	82
..	2. Malaria (including clinical cases): Statement of Hospital Admissions by months and States/Settlements	84
..	2A. Malaria (Microscopically positive cases): Statement of Hospital Admissions by months and States/Settlements	85
..	3. Surgical Operations: Summary	86
..	4. Ophthalmic Work: Summary	86
..	5. Out-Patients: Summary for each State/Settlement	87
..	6. Return of Diseases: Out-Patients	89
..	7. Return of Diseases: Travelling Dispensaries	102
..	8. Dental Surgery: Summary of Work	115
..	9. Laboratory Work: Microscopical Examination of Blood Films	116
..	10. Laboratory Work: Microscopical Examination of Faeces for Worms	116
..	11. Post Mortem Examinations	117
..	12. Return of Venereal Diseases	118
..	13. Child Welfare Centres—Summary	121
..	14. Dispensaries—Summary	122

FEDERATION OF MALAYA

REPORT OF THE MEDICAL DEPARTMENT FOR THE YEAR 1955

PART I

(1) CLIMATE, AREA AND POPULATION

1. CLIMATE.—The climate of Malaya is characterised by uniform temperature, high humidity and copious rainfall. The variation of temperature throughout the year is very small and the average temperature throughout the year ranges from 70° to 87° F. though at hill stations the temperature recorded is as far below as 36° F. The average rainfall is about 100 inches though there are great variations from place to place and year to year. Coastal districts, however, have their own peculiar rainy seasons.

2. AREA.—The territories comprising the Federation of Malaya are situated in the southern section of the Kra Peninsula between latitudes 1° and 7° North and longitudes 100° and 105° East. The Federation of Malaya covers an area rather more than twice the size of the Island of Ceylon and slightly larger than England without Wales. Four-fifths of the surface of the Federation of Malaya is covered by dense tropical jungle. The developed area is the Western Coastal area, west of the high central chains of mountains rising over 7,000 feet. Here are the largest towns and the main tin-mining and rubber planting areas. The area of the States and Settlements is shown below:

Kedah	...	...	...	3,648	sq. miles
Perlis	...	...	...	310	..
Penang and P. Wellesley	...	...	...	400	..
Perak	...	...	...	7,980	..
Selangor	...	...	...	3,160	..
Negri Sembilan	...	...	...	2,580	..
Malacca	...	...	...	640	..
Johore	...	...	...	7,878	..
Kelantan	...	...	...	5,870	..
Trengganu	...	...	...	5,000	..
Pahang	...	...	...	13,820	..
Total: Federation of Malaya	...	...	...	51,286	..

3. POPULATION.—The estimated mid-year population of the Federation of Malaya was 6,058,317 comprising Malaysians 2,967,233, Chinese 2,286,883, Indians and Pakistanis 713,810 and others 90,391. The total shows an increase of 169,739 over the mid-year figure for 1954.

By States and Settlements the estimated mid-year population for the last three years is as follows:

States/Settlements	Estimated population mid-year 1953	Estimated population mid-year 1954	Estimated population mid-year 1955
Kedah	645,817	664,659	682,949
Perlis	80,815	82,976	85,213
Penang and Province Wellesley	512,432	527,770	542,299
Perak	1,116,532	1,152,342	1,185,969
Selangor	847,098	877,286	907,961
Negri Sembilan	321,386	333,875	345,665
Malacca	283,140	293,315	302,424
Johore	874,766	904,691	932,448
Kelantan	493,501	506,117	515,905
Trengganu	249,468	256,994	262,686
Pahang	280,997	288,553	294,798
Total Federation	5,705,952	5,888,578	6,058,317

(2) ADMINISTRATION

4. ORGANISATION.—After the Federal elections in July, 1955, the portfolio of the Member for Health was replaced by that of the Minister for Health. The Ministry is now called the Ministry of Health and Social Welfare, and it combines in its portfolio the Departments of Medical and Health, Chemistry and Social Welfare.

The Director of Medical Services, with his Deputy and two Assistant Directors, the Chief Dental Officer, the Principal Matron, and the Chief Pharmaceutical Chemist, is responsible to the Minister for Health and Social Welfare for all matters of policy, and to the Chief Secretary, through the Federation Establishment Officer, for Staff and personnel.

Medical Headquarters, however, controls directly certain functions such as Research, Stores, Special Diseases (Mental Diseases and Leprosy), Quarantine, Transfers, Promotions and Training of Staff and in addition is responsible for the functioning of the two large Federal Hospitals at Malacca and Penang.

The Director, Medical Services is chairman of a number of statutory bodies, the Medical Council, the Dental Board, the Nursing Board, the Pharmacy Board, the Midwives Board and the Malaria Advisory Board, and is registrar of Medical Practitioners, Dentists, Pharmacists, Midwives and Nurses. This part of his duties is increasing yearly.

Each State and Settlement is responsible for its own Medical and Health Services, but work is co-ordinated and planned with the assistance of Medical Headquarters which advises in accordance with the policy of the Minister for Health and Social Welfare.

The relationship of the Director of Medical Services, with the setting up of a Ministry, to the State and Settlement Governments, is not clearly defined, and it is felt that, as the Ministry assumes increasing importance, the D.M.S. and his staff will eventually assume only advisory functions to the Ministry, and have no direct dealing with State/Settlement Governments. At present these are very largely confined to personnel matters, and with the acute shortage of staff, and the right of a State/Settlement to refuse to accept or release a particular officer, much difficulty is being experienced in maintaining a satisfactory staffing position.

Urban health is becoming increasingly associated with Local Government in the Federation. The Municipalities of Georgetown (Penang), Malacca and Kuala Lumpur, which are financially autonomous and a number of Town Boards, Town and Local Councils with increasing degrees of financial autonomy are mainly responsible for health in urban areas. The latter were formed as a result of the emergency when settlers were grouped at small towns.

In the Municipalities and Town Boards the various categories of health and sanitary staff are employed to serve the communities. The Municipalities, being independent of the State/Settlement Government, have complete control over their finances, their staff and their programme of works. The Town Boards' staff are financed by the State/Settlement Government. Health Officers in these departments have supervisory and advisory roles.

Works undertaken in both Municipalities and Town Boards include environmental sanitation, supervision of markets and street trading, rodent control and investigation of infectious diseases. Maternity and Child Health work is a feature in the Municipalities.

Anti-malarial measures involve the latest methods of eradicating the various phases of the mosquito life cycle. Water is sampled and food inspections are carried out regularly.

The Town Councils and Local Councils are in the early stages of evolution. Their local committees are responsible for the health and sanitary care and the results, so far observed, are varied.

The health of labour forces on estates and mines is under the care of Estate Medical Practitioners but the Government Health Department exercises supervision under the Labour Code. Most of the labour forces on estates have now been re-grouped due to the activities of communist terrorists.

The staff employed throughout the Federation on public health work, exclusive of Municipalities, Town Boards and estates, which have their own health staff, is made up as follows:

Medical Officers of Health	...	...	...	26
Health Inspectors or Sanitary Inspectors	...	...	...	183
Public Health Sisters	...	...	...	29
Public Health Nurses	...	...	...	102

5. EXPENDITURE ON MEDICAL AND HEALTH SERVICES.—While during 1955 the finances of the Medical Department in the Federation were confined within the limits of that permitted in the

previous year, a radical change was decided upon during the year 1955, which will become effective in 1956. This was that in future the medical department throughout the Federation will be run on a special Federal allocation, additional to the State/Settlement allocation from Federal funds. This new arrangement virtually places the control of finance for the medical department in the hands of the Minister for Health and his advisers, to whom in future all estimates of State and Settlement expenditure will be submitted.

The estimated expenditure for the year 1955 under "Medical and Health" is as follows:

State/Settlement	P.E. O.C.A.R., & O.C.S.E. \$	Capital non- recurrent \$	Total	
			Amount \$	Per cent.
Kedah	3,026,368	35,010	3,061,378	5.3
Perlis	544,269	5,800	550,069	0.9
Penang	1,819,301	7,000	1,826,301	3.1
Perak	7,763,680	836,677	8,600,357	14.8
Selangor	6,570,146	300,010	6,870,156	11.8
Negri Sembilan	3,872,905	310,231	4,813,136	7.2
Malacca	759,435	—	759,435	1.3
Johore	7,966,280	247,360	8,213,640	14.1
Kelantan	1,685,327	543,000	2,228,327	3.8
Trengganu	1,212,020	49,400	1,261,420	2.2
Pahang	2,872,040	36,543	2,908,583	5.0
Total	38,091,771	2,371,031	40,462,802	69.6
Federal	16,970,606	669,000	17,639,606	30.4
GRAND TOTAL	55,062,377	3,040,031	58,102,408	100.0

The estimated expenditure for the year 1954 was in the region of \$56 million and when compared with the estimated expenditure for 1955 it will be noted that little in the way of expansion has been permitted by these budgets which represent 7.2 per cent. of the total budget for the Federation or, based on a population of 6,058,317, a per capita expenditure of \$9.59.

The above amount does not take into account vast amounts expended by Public Works Department, Town Boards and Municipal Health agencies on projects relating to anti-malarial drainage and water supplies which cover a wide area. In addition a large number of estates run their own hospitals, undertake anti-malaria schemes and maintain their own medical practitioner service.

A five year plan of expenditure, based on the recommendations of the International Bank Mission which visited Malaya in 1954, has now been prepared and if accepted will permit the expenditure of approximately \$10 million per annum on expansion of medical services.

It is worthy of note however that the International Bank Mission were emphatic that the revenue of the department should also be increased. The charges for first class accommodation at some of the hospitals are much less than they would be in a first

class hotel, and they include treatment. Many people attend hospitals as outpatients who could well afford to pay. Many authorities such as Councils, are voting themselves free or privileged rates for medical attention, and the department has to give these services free. It is felt that like the railways, etc., the medical department should levy full charges on all Government officers and Government and quasi Government bodies, and the funds to meet the difference between that fraction of the charge payable by the officer and the full charge would be met from a vote established by the department which employs the officer. The constant calls for expansion of the Medical department's services have frequently to be met from existing funds, no allowance or increase being sanctioned to meet the new service. The additional staff of clerks and accountants required to collect these charges would ensure proper collection, since it is felt at present that much revenue is lost by inefficient collection.

A further matter of importance is the standardization of the estimates of expenditure now that the funds for the department are provided from Federal sources. It is of prime importance that it should be possible to compare the costs of running a service in one State/Settlement with the costs of running it in another, and only standardization of the expenditure heads permits this to be done. It is of great importance too that each institution such as hospital, dispensary, health centre, health office should have its own detailed estimates drawn up on standardized lines not only for personal emoluments but for annually recurrent expenditure. Estimates for 1956 for the first time have been drawn up on these lines, but the full value of the hard work put into this by administrative officers will be lost if, by their absence from the printed estimates, they are not readily accessible to each institution.

The department has appealed annually for improved clerical assistance and administrative assistance by persons not qualified medically in order to relieve those often with high technical qualification from time consuming clerical duties which do not require technical qualifications. Stenographers for consultants and particularly for radiologists are a crying need, but also hospital administrators not trained as doctors are of great importance. To this end W.H.O. has been asked to send in 1956 a trained hospital administrator to advise and if possible train local personnel in these duties.

6. STAFF.—In view of the avowed policy of the elected Government to Malayanise the services as soon as practicable expatriate recruitment has been practically at a standstill. All the appointments on the Federal Establishment are now selected by the Public Service Appointments and Promotions Board. The only doctors recruited for the permanent establishment during the year have been doctors who possessed the certificates of Federal Citizenship, and have been educated either at the University of Malaya or abroad. Recruitment of non-Federal citizens is accordingly at a standstill, and few officers on contract are willing to renew their contracts, but prefer to seek an opening elsewhere, in view of the fact that their prospects are narrowed.

The output of newly qualified medical officers from the University of Malaya is insufficient to fill existing vacancies, particularly as a large number of those who do qualify still prefer to enter private practice rather than Government Service.

Since the Medical Service is dependent now on recruitment of local doctors a very serious position has arisen in that out of 402 Superscale Administrative, Specialist and Timescale posts 236 were filled and 166 were vacant. Of the 166 vacant posts 84 were held by temporary officers on agreement and on a month to month basis. Proposals have been submitted to the Government for further recruitment and since it is becoming increasingly obvious that only 50 per cent. of the graduates who serve as house doctors join Government service, it has become essential to recruit either expatriates or doctors from neighbouring countries at least on a contract basis until such time as the University of Malaya output more closely balances the actual vacancies.

Some of the reasons why local doctors are not attracted to Government service may be worthwhile recording. There is little doubt that as long as doctors in private practice can earn much more than those in Government service, there will be more doctors attracted to private practice than to Government service. This is likely to go on until there is saturation either locally or over the country as a whole, and there is little likelihood of improved local recruitment until the proportion of doctors to population is much nearer western standards of 1: 1,000 than it is at present (1: 8,000). A second reason is discontent with the service by the local officer over transfers, study leave, etc. As the local officer replaces the expatriate officer in the service the opposition to transfer particularly becomes more acute. An officer may wish to serve in the State/Settlement where he was born or where his children can receive suitable education, and a transfer often necessary to meet the needs of some other State/Settlement upsets him. Because there is the alternative of private practice, he naturally chooses that. Furthermore it has been a service principle that officers are not granted study leave until they are in a permanent post. Many younger officers consider that they should be granted leave to specialize in their first few years of service, and refusal causes discontent. It is felt that these matters can only be rectified by a complete change of service conditions, where appointments would be made to a specific post and not to the service as such; this might involve the substitution of superannuation for pensionability. The service is in the throes of a change-over from the colonial system to the local system, and the pattern developed in other countries requires study.

The following reorganisation of staff was effected at the Medical Headquarters:

Dr. R. E. Anderson, Director of Medical Services, Federation of Malaya, relinquished duty to proceed on leave on 29th May, 1955, and resumed duty on 3rd October, 1955.

Dr. M. L. Bynoe, Deputy Director of Medical Services, Federation of Malaya, acted as Director of Medical Services, Federation of Malaya from 29th May, 1955 to 2nd October, 1955.

Dr. W. H. Jeffrey, Administrative Medical Officer, Superscale Grade A, acted as Deputy Director of Medical Services, Federation of Malaya with effect from 29th May, 1955 to 2nd October, 1955.

Mr. C. F. Mummery, Chief Dental Officer, Federation of Malaya, relinquished duty with effect from 25th March, 1955, to proceed on leave prior to retirement.

Che Abdul Karim bin Nawab Din, Specialist Officer Superscale Grade B, assumed duty as Acting Chief Dental Officer, Federation of Malaya with effect from 1st April, 1955, on transfer from Johore. Promoted to the post of Chief Dental Officer, Federation of Malaya, Superscale Grade A, with effect from 27th September, 1955.

Miss E. M. Hill, Principal Matron, Federation of Malaya, relinquished duty on 24th October, 1955, to proceed on leave prior to retirement.

Miss E. M. Hooper assumed duty as Acting Principal Matron, Federation of Malaya with effect from 25th October, 1955, vice Miss E. M. Hill who proceeded on leave prior to retirement.

7. HIGHER TRAINING.—The post graduate training of doctors has been receiving great attention in recent years and now 5 hospitals containing in all 25 specialist units have been recognised for experience leading up to full registration by the University of Malaya. On joining Government service the young doctor during his probationary period is expected to do general duty and only when he reaches the stage of emplacement on the Pensionable Establishment is he permitted to specialize. Generally speaking subsequent to that he will be permitted to choose what speciality he wishes to pursue and will be attached as "Junior Registrar" to a specialist for a period of two or three years. He will then be sent overseas for higher studies and to acquire a higher diploma, and on his return will be posted to a specialist unit as "Senior Registrar", and will on acquiring further experience be considered for promotion to specialist grade.

The problem of obtaining recognition for experience and training gained in this country remains unsolved. This is particularly the case where the Diploma of Membership of the Royal College of Obstetricians is concerned. To date no hospital in this country has been recognised for experience by the Royal College.

During the past year the following post-graduate diplomas have been obtained by doctors in the Federation Medical Services:

Dr. Syed Mohamed bin Syed				
Alhady ... ..	...	...	...	F.R.C.S. (Eng.), F.R.C.S. (Edin.)
Dr. Abdul Majid bin Ismail	...	...	...	F.R.C.S. (Edin.)
Dr. D. H. S. Griffith	...	...	...	D.P.H. (Lon.), D.I.H. (Eng.)
Dr. C. Cywinski	...	...	...	D.P.H. (Lon.)
Dr. S. Appadurai	...	...	...	D.P.H. (U. of M.)
Dr. (Miss) S. Saraswathy	...	...	...	D.C.H., L.M. (Rotunda)
Dr. Omar bin Din	...	...	...	D.M.R. (D). (Lon.)

At the end of the year 12 doctors, 12 nurses, 6 male nurses and hospital assistants, one X-ray assistant and one sanitary inspector are studying for post-graduate qualifications in the United Kingdom. In addition to the above, 15 nurses are undergoing training in Australia under the Colombo Plan.

One Health Officer is attending the Public Health Diploma Course in the University of Malaya.

Selection of three X-ray assistants for training in Radiology in the United Kingdom and three X-ray assistants for training in Australia under the Colombo Plan is at present under action with the Public Service Appointments and Promotions Board.

8. LEGISLATION.—The following legislation affecting the Medical Department was passed during the year:

- (a) The Registration of Dentists (Amendment) Ordinance, 1955;
- (b) The Medical Registration Regulations, 1955;
- (c) The Registration of Pharmacists (Amendment) Ordinance, 1955; and
- (d) The Nurses Registration (Amendment) Regulations, 1955.

PART II

PUBLIC HEALTH—(1) VITAL STATISTICS

A review of the vital statistics for the year indicates a gradual improvement in the health of the population in general.

9. POPULATION.—The estimated population of the Federation at mid-year 1955 was 6,058,317. Of this total 3,141,630 were males and 2,916,687 females. This is equivalent to 928 females to 1,000 males.

Details by race since 1911 are as follows:

Year	Chinese	Malays	Indians and Pakistanis	Others	Total
1911 ...	—	—	—	—	2,339,051
1921 ...	855,863	1,568,588	439,172	43,068	2,906,691
1931 ...	1,284,888	1,863,872	570,987	68,011	3,787,758
1947 ...	1,884,534	2,427,834	530,638	65,080	4,908,086
1948 ...	1,928,965	2,457,014	536,646	64,802	4,987,427
1949 ...	1,952,682	2,511,520	550,684	66,962	5,081,848
1950 ...	2,011,072	2,579,914	564,454	71,109	5,226,549
1951 ...	2,043,971	2,631,154	586,371	75,726	5,337,222
1952 ...	2,092,218	2,716,899	617,257	80,073	5,506,447
1953 ...	2,152,906	2,803,863	665,503	83,680	5,705,952
1954 ...	2,216,105	2,893,650	691,431	87,392	5,888,578
1955 ...	2,286,883	2,967,233	713,810	90,391	6,058,317

10. BIRTHS.—There were 260,766 live births in 1955 compared with 257,844 in the previous year.

The birth rate for all races for 1955 was 43.0 per 1,000 population as at mid-year 1955 which is slightly lower than the rate of 43.8 for 1954. However, the annual increase in the

number of births over the post-war period is seen to be continuing at a phenomenal rate. The 1955 figure of 260,766 is an all-time record.

By races the birth rates were:

		1954 rates
Malaysians	45.1	46.2
Chinese	40.6	41.1
Indians and Pakistanis	43.9	44.0
Others	31.0	32.7
All races	43.0	43.8

11. DEATHS.—Deaths registered in 1955 were 69,477 which is 2,414 less than recorded for 1954 (71,861). The death rate for all races was 11.5 per 1,000 population as at mid-year 1955. This is lower than the rate (12.2) for 1954. The death rates for 1947 to 1953 were 19.4, 16.2, 14.2, 15.8, 15.3, 13.6 and 12.4, respectively.

The death rates by races were:

		1954 rates
Malaysians	14.0 per 1,000	14.8
Chinese	9.0	9.6
Indians and Pakistanis	9.5	10.1
Others	7.4	9.1
All races	11.5	12.2

On the whole there is a marked decline in the death rates for all races and the rates are the lowest recorded since the war.

12. NATURAL INCREASE.—The births registered exceeded the deaths by 191,319 and therefore the natural increase amounted to about 3.2 per cent. of the estimated population.

The population growth in the Federation is among the highest in the world approximately 3 per cent., with a birth rate of 42 to 44 per thousand and a death rate of 11.5 to 13. At this rate of increase the population may double in the next 25 years.

13. INFANT MORTALITY.—The deaths of infants under one year numbered 20,445 out of 69,447 deaths of all ages. There were 260,766 live births and the infant mortality rate was 78 per 1,000 live births. The corresponding figures for 1954 were 21,429 out of 71,861 with an infantile mortality rate of 83.

The racial distribution of infant mortality is as follows (the corresponding figures for 1954 are shown in brackets):

Races	Infant deaths	Births	Infant mortality rate
Malaysians	12,920 (13,406)	133,863 (133,591)	97 (100)
Chinese	4,962 (5,363)	92,784 (90,996)	53 (59)
Indians and Pakistanis	2,432 (2,524)	31,318 (30,400)	78 (83)
Others	131 (136)	2,801 (2,857)	47 (47)

The trend of the infant mortality rates shows a slight decrease in the three main communities but the rate for "others" is the same as that of the previous year.

14. MATERNAL MORTALITY.—The number of maternal deaths registered was 1,090 for 260,766 births as compared with 1,227

for 257,844 births in 1954. This gave a maternal death rate of 4.2 per 1,000 births and the figure for 1954 was 4.8 per 1,000 births.

15. **PRINCIPAL CAUSES OF DEATH.**—There were 69,447 deaths recorded in the Federation of Malaya of which 13,425 only were certified by medical practitioners and 5,769 were inspected after death by medical men. Therefore figures shown under “Principal causes of death” are expected to be far from accurate.

Principal causes of death are given below:

Fever of unknown origin	...	...	18,665	(19,607)
Infantile convulsions	...	...	8,765	(11,317)
Malaria (all forms)	...	...	807	(940)
Pulmonary Tuberculosis	...	...	1,526	(1,642)
Pneumonias	...	...	1,893	(2,380)
Violence	...	...	2,483	(2,769)
Diarrhoea and enteritis	...	...	2,157	(2,190)
Senility	...	...	11,600	(10,574)

(Figures in brackets are for the year 1954).

PUBLIC HEALTH—(2) SPECIAL DISEASES

16. The main public health problems of the Federation of Malaya are the prevention of malaria, reduction in pulmonary tuberculosis, eradication of yaws, prevention of the major infectious diseases and the treatment of Leprosy and Mental Diseases. Enforcement of Quarantine and improvement of the general standard of nutrition and health, especially the care of mothers and children, constitute an equally important part of the Health Services.

17. **MALARIA.**—The total number of cases admitted into Government and Estate Hospitals was 8,577 with 74 deaths as compared with 9,695 cases and 111 deaths in 1954.

Comparative figures are given below:

Year	Admission to Government and Estate Hospitals		Deaths	Case Mortality per cent.		
1947	...	22,281	...	736	...	3.3
1948	...	15,477	...	428	...	2.8
1949	...	14,663	...	315	...	2.1
1950	...	11,720	...	236	...	2.0
1951	...	15,960	...	244	...	1.5
1952	...	14,115	...	192	...	1.4
1953	...	12,716	...	163	...	1.3
1954	...	9,695	...	111	...	1.1
1955	...	8,577	...	74	...	0.9

Although there was a remarkable decrease in the incidence of malaria it is still regarded as a major Public Health problem. Permanent anti-malarial drainage has been continued throughout and the work has proceeded most satisfactorily and represents a major effort in malaria control.

Residual spraying of houses with DDT Emulsion, which was started in 1953 was still continued throughout the year 1955.

Careful check was done on the dosage of DDT Emulsion applied by measuring the area of the walls of the houses to be sprayed and comparing the amount of the DDT Emulsion that was used for each house. In addition to DDT, BHC wettable powder and Dioldrix 15 were also used. Approximately 600,000 people residing in 118,000 houses are being protected from malaria.

Chemoprophylaxis of the members of the Police Force, whose frequent exposure to risk of malaria infection was great, was responsible for the low incidence of malaria among them.

The improvement in the malaria position is so great that it is necessary to be constantly on guard against any slackening in the anti-malarial measures which might, if permitted, result in outbreaks of epidemics.

The number of malaria cases, positive as well as unspecified forms, treated in the Government Hospitals was 9,111. This shows a decrease of 976 cases when compared with the 1954 figure of 10,087. The distribution of types of malaria diagnosed microscopically was:

Subtertian	...	...	...	...	69.3 per cent.
Benign tertian	...	...	...	...	27.7 ..
Mixed	...	...	...	...	2.6 ..
Quartan	...	...	...	...	0.4 ..

18. PLAGUE AND CHOLERA.—There were no cases of plague and cholera recorded in 1955.

19. SMALLPOX.—Smallpox was totally absent in 1955.

274,430 vaccinations (184,873 primary, 89,557 secondary) were performed in 1955 and out of these 37,518 were re-vaccinations for International Certificates.

20. TROPICAL TYPHUS.—The incidence of tropical typhus is gradually decreasing and the occurrence of cases is sporadic in nature. During the year 364 cases were reported and out of these 266 were scrub typhus and 98 urban typhus.

The total number of cases and deaths from tropical typhus for the year are shown below:

State/Settlement	Number of Cases			Number of Deaths		
Kedah	8	...	...	1
Perlis	2	...	...	—
Penang	5	...	...	—
Perak	39	...	...	3
Selangor	46	...	...	—
Negri Sembilan	66	...	...	—
Malacca	11	...	...	1
Johore	31	...	...	1
Kelantan	2	...	...	1
Trengganu	—	—
Pahang	50	...	...	1
Military Headquarters	104	...	...	—
			364			8
		Total	...	...	...	8

21. ENTERIC FEVER.—The total number of enteric fever cases reported during the year was 1,088 with 56 deaths as compared with 899 cases with 70 deaths during the previous year. This disease is endemic in Malaya.

An epidemic of typhoid fever was reported during the third week of September, 1955, from Kuantan, the new State Capitol of Pahang. Preventive measures were immediately instituted. Food and ice-cream hawkers were banned from the streets and examination of their stools was carried out for detection of carriers. Mass T.A.B. inoculation was given to about 22,000 members of the general public, especially the school children. An intensive search for unrecognised typhoid cases in the town was made and hyperchlorination of water supply was carried out.

Emergency isolation wards were erected to accommodate all the infected cases. A total of 235 cases were reported and the outbreak lasted about eight weeks. The staff was supplemented from other States and Settlements and special medical and nursing care was given with Chloromycetin treatment.

A remarkable feature of the outbreak was the extremely low incidence of typhoid complications with absence of deaths.

In December, 1955, there was a minor outbreak in Kuala Pilah District where 29 cases were reported. There were 12 cases of typhoid from Johol Village and after very careful investigation the source of the outbreak was traced to one Chinese woman 63 years of age and a Malay woman, the wife of a "chandol" hawker. Most of the reported cases consumed "chandol" purchased from this hawker. The outbreak was well in hand and over 19,000 people in the District of Kuala Pilah were inoculated with T.A.B.

The total number of notifications for enteric fever was the highest ever yet recorded since post-war. This was due to the outbreak in Pahang. The increase in the number of cases was accompanied by a gratifying decline in the number of deaths, also to a record low level—23 per cent. in 1946 to 5.1 in 1955.

A summary of cases and deaths is given below :

State/Settlement	Number of Cases	Number of Deaths
Kedah	73	4
Perlis	18	2
Penang	56	5
Perak	199	12
Selangor	131	13
Negri Sembilan	96	6
Malacca	29	2
Johore	88	6
Kelantan	25	2
Trengganu	41	2
Pahang	324	2
Military Headquarters ...	8	—
Total	1,088	56

22. **DYSENTERY AND DIARRHOEA.**—Dysentery and diarrhoea are not notifiable diseases. Hospital statistics show admissions as 8,183 with 1,080 deaths. Corresponding figures for 1954 were 8,061 with 998 deaths.

These diseases occur at the driest time of the year when the wells and rivers have the least amount of water in them, and at which time in many kampongs there is no water suitable for drinking. The non-existence of any form of latrines in rural areas, and combined with the use of unboiled water for drinking from rudimentary unprotected wells or stagnant pools provide ideal conditions for the spread of dysentery and gastro-enteritis among the rural population.

Gastro-enteritis especially is common in infants as well as in adults and occurs in the East Coast States of Kelantan and Trengganu. It occurs sporadically and recurs periodically. It is an alarming disease when it appears which suggests a mild cholera, but laboratory examinations did not reveal any specific organism. The disease is accompanied by vomiting and profuse watery diarrhoea with toxæmia and dehydration. It responds quickly in most cases to sulphaguanadine treatment.

There was a minor outbreak of gastro-enteritis in the Salor and Banggu areas of Kota Bharu District in Kelantan in May this year. About 375 persons were affected with 11 known deaths.

The annual occurrence of an epidemic of gastro-enteritis must be interpreted as an unpleasant reminder of the absolute importance of taking immediate steps to provide sanitary installations and protected wells in the rural areas throughout the States and Settlements.

23. **DIPHTHERIA.**—The incidence of diphtheria appears to be sporadic and the annual figures suggest that it has been on the increase since 1947 (except in 1953).

One thousand, six hundred and thirty-two cases of diphtheria with 293 deaths were recorded in 1955 as against 1,535 cases with 318 deaths in 1954. The fatality rate for 1955 is 17.9 per cent. as compared with 20.7 per cent. in 1954. It is not possible to obtain a comparable fatality ratio according to age as statistics relating to age incidence are not available. The high fatality emphasises the importance of immunisation against Diphtheria.

Although immunisation campaigns were carried out in most of the States and Settlements the level of protection so far achieved is considerably low. During the year 100,362 immunisations were recorded in the States and Settlements. Broadly taking this figure as infants under one year, when compared with the number of births recorded in 1955 (i.e., 260,766), the number of infants immunised amount to 38 per cent. only. This clearly indicates that 62 per cent. of the new borns are at risk of infection. It is evident, therefore, that unless immunisation campaigns on a larger scale are effectively carried out there is a possibility of an increase in the number of cases in future year.

The table below shows the summary of cases and deaths recorded in the year:

State/Settlement	Number of Cases	Number of Deaths
Kedah	122	24
Perlis	20	5
Penang	220	30
Perak	454	92
Selangor	353	47
Negri Sembilan	79	22
Malacca	96	14
Johore	208	35
Kelantan	10	4
Trengganu	16	2
Pahang	46	18
Military Headquarters ...	8	—
Total ...	1,632	293

24. INFLUENZA.—A minor outbreak of influenza started in the Malay College, Kuala Kangsar, some time in February. Seventy-four pupils out of 471 showed symptoms with fever, headache and laryngo-pharyngitis. Routine public health precautions were taken and the Virus Research Officer from the Institute for Medical Research, Kuala Lumpur, together with the Senior Pathologist, Perak, investigated the cases. Strains of influenza B virus were isolated in a few cases. The outbreak lasted about a fortnight and passed off without any undue incident.

25. CEREBRO-SPINAL MENINGITIS.—The incidence of meningococcal meningitis was again insignificant. There were only eleven cases on record during the year and the number of deaths was five. Corresponding figures for the year 1954 were eight cases with two deaths.

26. POLIOMYELITIS.—This is another disease of low endemicity affecting chiefly the members of the younger age group. During the year the incidence of poliomyelitis showed a marked decrease. Thirty-seven cases were reported with four deaths. The corresponding figures for 1954 were 128 cases with eight deaths. It is gratifying to note that cases notified during 1955 have decreased appreciably and the highest incidence was in Selangor as usual. The following table shows the total number of cases of poliomyelitis and deaths resulting thereof in 1955:

State/Settlement	Number of Cases	Number of Deaths
Kedah	1	1
Perlis	—	—
Penang	1	—
Perak	4	—
Selangor	18	2
Negri Sembilan	6	1
Malacca	—	—

State/Settlement	Number of Cases	Number of Deaths
Johore	—	—
Kelantan	1	—
Trengganu	2	—
Pahang	1	—
Military Headquarters ...	3	—
Total	37	4

27. **YAWS.**—The true incidence of yaws is difficult to assess and it is undoubtedly endemic in the rural areas of the States and Settlements, especially among Malays along the riverine kampongs. A real incidence can only be built up by invading the remote areas and weeding out the unfortunates.

A full scale yaws eradication campaign which was started on the East Coast States of Kelantan and Trengganu with the help and advice of the World Health Organisation and supply of penicillin by UNICEF is still under way.

Since the inception of the campaign in April, 1954, and up to December, 1955, survey as well as re-survey work continued in both the States. Two teams have been working throughout the period and considerable areas have been covered.

The following is a summary of work done up to the end of December, 1955:

Total estimated population covered	...	329,978
Total Population examined	... ..	289,652
Total number of yaws cases diagnosed	... ..	50,169
Total cases treated	... ..	48,755
Total number of contacts treated	... ..	5,961

During the first survey 23.1 per cent. of the cases examined were found to be infected and 97 per cent. of these were treated. In a recent re-survey of the same area 8.1 per cent. of the cases were found infected and 98 per cent. of these were treated.

Yaws is also prevalent in certain areas on the West Coast, and an extension of the campaign to these areas is contemplated.

28. **PULMONARY TUBERCULOSIS.**—Forty to fifty years ago malaria was considered to be the most feared disease in the Federation of Malaya, but to-day tuberculosis has supplanted malaria as the latter has been widely and successfully fought by modern methods of prevention and treatment.

There have been no great changes in the social factors responsible for the spread of tuberculosis. The only reason for the increase in incidence of pulmonary tuberculosis lies in lack of public knowledge about this disease, importance of its early diagnosis and treatment and danger of its spread; therefore it is still regarded as an important medico-social disease in the Federation of Malaya.

In the Federation no extensive special survey of tuberculosis has yet been made on which to base a policy for the combating of this disease. Unfortunately a detailed survey of this disease

is expensive and time-consuming requiring the services of a comparatively large staff and therefore it is not possible to make a regular feature of the department's work. Moreover it is questionable whether there is any justification for directing staff, money and equipment to such surveys unless there is a definite intention on the part of the Government to tackle the problem revealed by such survey and this is prohibited by the present lack of staff and finance.

The total number of beds available for the treatment of tuberculosis is about 3,000 and most of these are in acute general hospitals. Hospital statistics show 6,578 admissions for pulmonary tuberculosis with 862 deaths compared with 6,451 admissions with 956 deaths in 1954.

The total deaths from pulmonary tuberculosis registered with the Registrar-General, Births and Deaths were 1,526 as compared with 1,642 during the previous year. This represents a death rate of 25.2 per 100,000 population.

The greatest gap in our present resources in dealing with the problem of pulmonary tuberculosis is the absence of any accommodation for infectious, but incurable cases, for whom hospital treatment is of little or of no value, but who, if not segregated, remain a constant source of infection to others. Attempts are being made to persuade voluntary organisations such as the M.A.P.T.B. to build suitable accommodation for the housing of these incurable cases. This Association has received considerable sums of money from the Lotteries Board, and it also provides assistance in cash and in kind to tuberculosis sufferers and to the families of tuberculosis sufferers.

The Lady Templer Tuberculosis Hospital was opened during the year, and some 140 beds are now occupied. Medical treatment alone is at present being given, but it is hoped shortly to appoint an experienced thoracic surgeon and to establish a thoracic surgical unit. There has for a long time been a great need for such a unit in the Federation and its establishment will be of very great benefit. Only patients who are curable are admitted to this hospital, and very careful selection is made by the Medical Superintendent personally before a case is admitted.

The tuberculosis wards in the General Hospital, and the modern out-patient clinic at Malacca with its own X-ray department and laboratory, continue to play an important part in the treatment of tuberculosis.

Pneumoperitoneum with or without phrenic paralysis continues to give excellent results. One hundred and thirty-six cases were induced during 1955 and 1,294 cases were given refills. All cases were screened regularly.

No new "miracle" drug has appeared in 1955 and various combinations of Streptomycin, INAH and PAS were given in intermittent courses. There is no doubt that prolonged courses, (unlike the short ones of a few years ago) produce much better results and less relapses.

29. B.C.G. CAMPAIGN.—Further progress was made during the year in the vaccination of the selected groups of the population.

namely school children, new born babies and certain members of the Public institutions. In 1955, 119,401 persons were tuberculin tested and of these 59,562 received B.C.G. vaccinations. In addition 13,598 new born babies were also vaccinated.

30. **VENEREAL DISEASES.**—Although the incidence of venereal diseases has been steadily declining during the past few years, a venereal disease control programme has not been carried out on an organised scale. Only a few Social Hygiene Clinics exist in the principal towns in the States and Settlements, but these are offset by providing treatment in all the hospitals, static as well as at travelling dispensaries.

The total number of new cases applying for treatment at Government Hospitals and Special Clinics is as follows:

New Cases	1954	1955
Syphilis	4,012	3,120
Gonorrhoea	5,285	4,711
Other V.D.	884	1,850
Total	10,181	9,681

As compared with the figures for the previous year, syphilis again shows a marked decrease. Gonorrhoea also shows a decrease. But this latter figure is hardly comparable with former years, since this year an endeavour has been made to make returns of Non-Specific Urethritis as distinct from gonorrhoea. This differentiation accounts for the increase in the figures under the heading of "Other Venereal Diseases". It is to be hoped that next year the position will have become clearer.

It will be noted, however, that the overall figures for all new cases of Venereal Diseases has shown a further drop, despite the constantly increasing numbers of the population.

A detailed Return of Venereal Diseases treated in Government hospitals and clinics showing diagnosis and distribution by race and sex is included in the Appendix (Table 12).

PUBLIC HEALTH—(3) NUTRITION

31. The study of the nutritional anaemias, so prevalent in Malaya, has continued at the Institute for Medical Research, Kuala Lumpur. Except for the somewhat general observations of school children and babies in the course of visits to schools, kampongs and at Health Centres, it was not possible to undertake nutritional surveys without the services of a special staff. Education on proper feeding is imparted by the staff of the Health Centres to mothers and guardians.

The assessment of heights and weights of children in the Federation was recommended by the Health Education Subcommittee and as a result a survey of heights and weights of new born babies and school children has been carried out since 1953 in the States and Settlements. All the available records have been sent to the University of Malaya for correlation and analysis and a report in this connection is awaited with interest.

Two delegates from the Federation Medical Services attended the W.H.O. Conference on Nutrition and Public Health Education held at Manila from 10th October to 3rd November, 1955 as the representatives of the Federation of Malaya.

PUBLIC HEALTH—(4) ESTATES, MINES, RAILWAYS AND QUARANTINE

32. HEALTH ON ESTATES.—The general health of the estate labourers showed no abnormal variation from the previous year. There has been no outbreak of infectious disease during the year and statistics show a very low death rate amongst estate population. Malaria incidence remained low.

The provision of better housing for labourers on estates continued to make progress. During the year, many labourers' quarters have been replaced with more modern types of quarters. But there is still room for improvement. There is a great need for improved midwifery services for women labourers and also for more creches and staff to maintain them.

The following table is a summary of statistics relating to mortality amongst labourers on estates:

	Population	All Diseases		Malaria		
		Deaths	Death rate per mille	Deaths	Death rate per mille	
Labourers and Dependants:						
All Nationalities ...	453,569	2,563	5.65	12	0.03	
Labourers only:						
All Nationalities ...	262,307	660	2.52	4	0.02	
Labourers and Dependants:						
Indians ...	266,725	1,933	7.25	4	0.02	
Labourers only: Indians ...	148,922	440	2.95	1	0.01	

33. The low incidence of disease and the low mortality amongst labourers on estates is now taken as a matter of course. It is interesting to look back and examine the conditions that existed only 30 to 40 years ago. The table below shows the comparison:

ESTATE MORTALITY RATES

F.M.S.	Total number of Estate labourers	Deaths	Death rates per mille
1911 ...	143,614	9,040	62.9
1912 ...	171,968	7,054	41.02
1913 ...	182,937	5,592	29.6
1914 ...	176,226	4,635	26.3
1915 ...	169,100	2,839	16.78
1918 ...	213,425	9,081	42.55
(Influenza epidemic)			
1919 ...	216,573	3,384	16.16
1920 ...	235,156	4,367	18.57
1921 ...	175,649	3,195	18.19

FEDERATION OF MALAYA

F.M.S.	Total number of Estate labourers	Deaths	Death rates per mille
1950	269,685	779	2.89
1951	258,953	1,292	4.99
1952	278,005	1,085	3.90
1953	268,812	812	3.02
1954	266,444	756	2.84
1955	262,307	660	2.52

A sub-committee was appointed from the Medical Department, Labour Department and the Machinery Department on 25th March, 1955, to investigate the legislation required under the "Health Section" of the Labour Code and to extend sanitary and health supervision to places of employment not at present covered.

34. ESTATE HOSPITALS.—Estate hospitals continue to be maintained while many present buildings are not in use due to the present low incidence of malaria.

The estate hospitals are inadequately staffed compared with the relatively under-staffed Government hospitals and very few estates engage midwives although a number of cases are confined in the estate hospitals and estate lines. It is under consideration whether the provision of hospital facilities for their labour should continue to be a commitment of rubber estates, or whether this commitment should devolve upon Government.

The following table is a summary of the provision made by employers for the treatment of sick labourers and their dependants on estates :

States/Settlements	Number of Estate Hospitals	Number of Beds	All Diseases		Malaria	
			Adms.	Deaths	Adms.	Deaths
Kedah	13	1,205	22,486	301	1,211	2
Perlis	—	—	—	—	—	—
Penang	3	193	2,089	16	5	—
Perak	27	1,299	20,040	486	469	1
Selangor	27	1,123	20,195	327	536	1
N. Sembilan	17	700	9,074	105	308	3
Malacca	8	141	2,030	94	34	—
Johore	12	325	5,926	103	73	1
Kelantan	4	88	1,547	18	98	—
Trengganu	1	50	940	6	49	1
Pahang*	4	170	2,621	32	190	1
Total	116	5,294	86,948	1,488	2,973	10

35. HEALTH ON MINES.—Labourers on most of the mines were required to live in re-grouped areas in accordance with the provisions of the Emergency Regulations. Inspection of these re-grouped areas was carried out and recommendations regarding sanitation were made to the authorities concerned.

The Pahang Consolidated Mines and the Bukit Besi Mine in Trengganu have their own hospitals fully equipped with adequate medical and nursing personnel. Backed by preventive health and anti-malarial measures the mining community has been healthy.

36. RAILWAY SANITATION.—The Railway Health Department is under the charge of a Health Officer, seconded from the Government Medical Service. It provides out-patient medical facilities for

* Includes one Mine's Hospital

Railway staff and their dependants at places where State/Settlement Medical Department facilities are not readily available, namely at wayside stations and all the Gang Quarters. It is also responsible for preventive measures against malaria throughout the railway system. The Health Officer advises the Railway Department on matters involving Public health.

The activities of the Department were confined largely to anti-malarial works on the Railway Reserve and on State and private lands thereto adjoining. Preventive measures adopted consist of oiling of drains by the spray and brush methods, disinsectisation of quarters with D.D.T., and prophylactic treatment of staff and their dependants, particularly permanent way staff in outlying and isolated areas. The efficacy of these measures was ensured by frequent larval surveys held in conjunction with Anti-malarial Departments of Town Boards and Municipalities.

Regular periodical inspections were made throughout the system by District Health Committees under the Chairmanship of the Health Officer. All housing areas and all gang quarters especially those at isolated places were visited at least half-yearly. In addition to this, a Local Health Committee under the Chairmanship of the District Traffic Inspector visited all the main stations and thickly populated railway centres at shorter intervals. The Health Officer also made independent inspections of the Railway during the year. It has been possible to effect a slight improvement in the standard of hygiene and sanitation in some housing areas and gang quarters during the year but much remains to be done.

Dispensaries, some working on a whole time basis under the charge of Hospital Assistants, were maintained at the following places: Alor Star, Prai, Ipoh, Kuala Lumpur, Sentul Works, Seremban, Gemas, Johore Bharu, Krai, Gua Musang and Kuala Lipis.

During the year the Dispensary building at Sentul Works was extended by the addition of another wing to the existing premises.

Free medical treatment is provided for Railway staff and their dependants at Railway and Government Dispensaries. The number of attendances at these dispensaries was 86,544. In addition Hospital Assistants visited wayside stations and permanent way gang quarters throughout the line attending to minor ailments.

A total of 6,062 passengers crossing the Thai frontier at Padang Besar were vaccinated.

First Aid Equipment on passenger trains, stations and workshops were inspected periodically and replenished as necessary.

First Aid Courses of instruction based on the St. John Ambulance Association text book were attended by 253 employees of whom 51 passed the examination.

PORT HEALTH WORK

37. Port Health work and quarantine are Federal functions. These are particularly important because of the number of immigrant ships which arrive from the neighbouring infected and suspected ports. Although the World Health Organisation adopted new International Sanitary Regulations on quarantine procedure

in June, 1951, the quarantine procedure practised during pre-war days is still successfully continued.

As a routine all ships from ports gazetted as infected were boarded at the Quarantine Anchorage and all passengers and crews examined, and certificates of vaccination and inoculation scrutinised for their validity, but all the deck passengers are taken to the Quarantine Station at Pulau Jerejak for thorough examination. They are then re-vaccinated and quarantined until the results of the re-vaccination are known.

During the period under review one hundred and six immigrant ships from India, seventy-nine from China and Hongkong, four pilgrim ships from Jeddah and ninety-three from other infected ports arrived carrying 63,383 Saloon and Deck passengers.

38. INFECTIOUS DISEASES ON SHIPS.—Thirty cases of chicken-pox, fourteen cases of measles and one case of mumps were detected among the passengers during the routine examination of passengers on board.

39. OUTGOING PILGRIM SHIPS.—In the year 1955, the number of pilgrims that left Penang for the Mecca Pilgrimage was 3,520 comprising of 3,361 adults and 159 minors. They left by three ships on 1st June, 17th June and 6th July respectively.

All the pilgrims were vaccinated against smallpox and all, except the infants under one year, were inoculated against cholera. The pilgrims were checked during embarkation and no one was rejected on account of being afflicted with any infectious or contagious disease. The International Certificates of the pilgrims were also examined and all were found to be in order. The general condition of the pilgrims was very good.

All the ships were examined before sailing and the accommodation and ventilation were found to be very satisfactory. The space allotted for each pilgrim had been increased and there were large shelves all round to accommodate the baggage—an advantage in that it helped to clear the floor space of unnecessary obstruction.

Food and water supply was in accordance with the scale set out in Section 21 of the Pilgrim Ordinance with slight modification approved by the Chief Secretary.

40. INCOMING PILGRIM SHIPS.—Four pilgrim ships carrying a total of 3,792 pilgrims arrived during the period. A total of twenty-three deaths occurred on these ships during the voyages and the chief cause of death was malnutrition.

41. SUMMARY OF PORT HEALTH WORK.—

Number of visits of inspection to ships	Total Passengers		Total Examined		Passengers		
	Cabin	Deck	Crew	Passengers	U	Q	R
Penang 282 ...	17,024	46,359	29,244	63,383	18	21,804	32,889
Port Swettenham 98 ...	4,815	18,546	9,721	23,361	—	—	23,236
Total 380 ...	21,839	64,905	38,965	86,744	18	21,804	56,125

U = Signed undertaking to report.

Q = Removed to Quarantine Station.

R = Remained in Ship.

42. VACCINATIONS AND INOCULATIONS.—During the year 32,155 vaccinations and 10,463 inoculations were performed. 66 were primary vaccinations and 10,285 were revaccinations for purposes of International Certificates and admissions to schools. 21,804 revaccinations were carried out at the Quarantine Station, Pulau Jerejak.

43. INSPECTION TO SHIPS.—Forty-eight ships were inspected for rats for the purposes of issuing Deratisation Exemption Certificates.

44. INSPECTION OF AIRCRAFTS.—A total of 266 planes were inspected during the year. Altogether a total of 1,069 crew and 1,887 passengers were examined but no case of dangerous infectious disease was detected among them.

45. INSPECTION OF WATER BOATS.—Eight water samples were taken from water boats and sampans during the period for bacteriological examinations. The results were seven satisfactory and one unsatisfactory.

46. EXAMINATION OF FOODSTUFFS.—Sampling of pre-packed foods was carried out but shortage of staff prevented large scale sampling.

There were two cases of contamination of food with Sodium Arsenite shipped in the same hold. In both cases a considerable amount of food had to be condemned.

47. YELLOW FEVER CONTROL.—*Aedes Aegypti* surveys were conducted at the Bayan Lepas Airport and at Permatang Kuching Airport, Butterworth. The *Aedes Aegypti* index was found to be nil and 3 per cent. respectively. *Aedes* control is being carried out at both these airports.

48. INTERNATIONAL AIRPORT.—Plans have been submitted by the Civil Aviation Department, and approved by the Medical Department, for the provision of a direct transit area in the new terminal buildings to be erected in Kuala Lumpur. Mosquito proof wards have been constructed in Pulau Jerejak and a direct transit area is under construction at Bayan Lepas. When these buildings have been completed it will be possible to give these airports recognition as international airports.

PUBLIC HEALTH—(5) RURAL HEALTH SERVICES

49. The expansion and development of Rural Health Services has been given high priority. Subject to funds being available the Minister is anxious that this expansion plan be considerably speeded up. Colonial Development and Welfare Funds have been allocated for the building of eight District Health Centres. All eight of these are now for tender or already in the process of being built. Application for Federal Funds for the building of four sub-district centres with each District Health Centre has been made.

The Rural Health Training School at Jitra was completed in August, 1955 and started to function as a Health Clinic but has

not started to function as a Training School. The delay has been due to the difficulty in obtaining a W.H.O. Health Sister to train the local counterpart. However, this difficulty has now been resolved, a Health Matron, Federation of Malaya having been seconded to W.H.O. with effect from 7th November, 1955 and posted to Jitra. The School will be officially opened in February, 1956 and will train six rural health teams (each team consisting of an assistant nurse, a midwife, a dispenser and a sanitary overseer) every six months. The teams trained at this school will eventually replace the British Red Cross and St. John Ambulance Teams, etc. and also man the district as well as the sub-district centres. There is a scheme to build 90 district centres, 360 sub-district centres and 2,250 midwives quarters within a period of 25 years by a series of 5-year programmes. The introduction of these trained teams into the rural areas should result in a rapid and steady improvement in the health of the kampong dwellers.

In rural areas, malaria is still endemic. Residual DDT spraying and suppressive drugs are the methods of economic control in kampongs, new villages and coastal areas.

During the year under review the general health of the new village inhabitants has been satisfactory. In so far as medical facilities are concerned, these new villages are well served by Government travelling dispensaries, the British Red Cross, St. John Ambulance Association, the various mission teams and last but not least by the Health teams from Maternal and Child Health Centres. Medicines, prophylactic treatment and advice are given by these medical units.

There is an ever increasing demand for more services in the rural areas. The desire for western medicine is growing and the population of these areas have realised that they are also eligible to get medical and health attention.

PART III

MATERNITY AND CHILD HEALTH

50. Maternity and child health work made great strides during the year. There are about 106 main maternity and child health centres and 447 sub-centres functioning throughout the Federation. Normally these centres are under the charge of Public Health Sisters with a staff of Public Health Nurses and midwives. The working of these centres comes under the supervision of the Public Health Matron, who is under the control of the Health Officer.

These centres were well patronised and attendances have been good. However, expansion of maternity and child health work to rural areas and new villages was limited, owing to shortage of trained staff and housing.

In most of the States and Settlements immunisation clinics were held in the centres. The public in some of the rural areas

have responded well to the efforts made by the public health staff, but superstition, poverty and ignorance still play a large part in the lives of the kampong people.

Maternity and Child Health work is also carried out by the British Red Cross and St. John Relief Teams throughout new villages and rural areas.

Home visiting plays an important part in the work of the health nurse and midwife. The establishment of a domiciliary midwifery service is well under way and should render valuable service.

The attendances of mothers and children at the welfare centres amounted to 1,346,683 and 460,036 visits were paid to mothers and children in their homes.

A tabulated statement of child welfare centres is given in the Appendix (Table 13).

PART IV

HOSPITALS AND DISPENSARIES

51. Hospitals and dispensaries are a State Service, and particulars of this service will be found in the Annual Reports of States and Settlements.

The Government hospitals in the Federation provide some 20,000 beds of which nearly 13,000 are provided in some 71 general and district hospitals and 7,000 in special (mental and leprosy) institutions. The distribution of hospital beds in the various States and Settlements of the Federation is inequitable; for instance, in Kelantan, Trengganu and Perlis the number of beds is 0.9, 1.4 and 1.5 respectively per thousand population, whereas the figure for the Federation as a whole is 3.2 beds per thousand.

During the year no significant expansion of hospitals has occurred. Most of the hospitals are old and structurally out of date. They do not provide sufficient specialist facilities.

It is planned to build a new 500-bed hospital in Kuala Lumpur, the Federal Capital where rapid increase in population has rendered the hospital facilities hopelessly inadequate. With the new hospital it is intended to build a nurses' training school and student nurses' hostel for some 250 nurses. Application has been made for Colonial Development and Welfare Funds to meet the cost of these projects.

A scheme is under consideration by the Minister for improving existing hospitals, which are now with some exceptions out-dated. A survey of what will be necessary has been completed and application will be made for the considerable funds necessary to bring up to date, improve and, in some cases, enlarge existing hospitals. No increase in the overall total number of beds in the

Federation, however, is at present contemplated, but in certain places where there are deficiencies these will be made good. Expansion of out-patient facilities will receive priority consideration, as a means of reducing the pressure on beds.

The Government is considering the regionalisation of six large hospitals in the Federation at which specialist facilities are fully developed or will eventually be fully developed.

The specialist unit system with the employment of House Doctors who are carrying out the statutory pre-registration twelve months' training period continues at Penang, Ipoh, Kuala Lumpur, Malacca and Johore Bahru. The specialist services at these five hospitals are of a very high order, but there remains a shortage of Radiologists, Anaesthetists and Pathologists.

The development of the specialist unit system has necessitated the withdrawal of certain officers from general duties for the performance of the work of "registrars". This has led to a further depletion of the general duty staff at a time when it could ill be afforded.

The great shortage of staff seriously threatens the policy of sending local officers overseas for post-graduate training, but every attempt is being made to avoid having to restrict this.

During the year 243,176 patients were admitted. This does not include admissions to the Leper and Mental institutions which numbered 736 and 2,325 respectively. The daily average number of hospital in-patients were 10,536. The figures for the previous year were 235,738 admissions and a daily average of 10,446 in-patients.

52. A summary of the distribution of Government hospitals and beds is given below. A tabular statement of hospitals with daily averages, admissions and deaths is given in the Appendix (Table 1A).

SUMMARY OF HOSPITAL ACCOMMODATION

State/ Settlement	Number and Category of Beds					Total
	General	Obste- trics	Tuber- culosis	Infec- tious	Mental	
Kedah	736	76	203	16	18	1,049
Perlis	58	11	42	4	5	120
Penang	929	196	646	73	36	1,880
Perak	1,744	279	453	65	24	2,565
Selangor	1,122	185	174	40	21	1,542
N. Sembilan	698	121	354	29	17	1,219
Malacca	441	54	271	6	10	782
Johore	1,185	282	378	26	37	1,908
Kelantan... ..	321	30	96	10	35	492
Trengganu	206	22	82	1	7	318
Pahang	527	76	154	25	10	792
Total	7,967	1,332	2,853	295	220	12,667
Total excluding Special Institutions ... ..	...	...	...	...	...	12,667

SPECIAL INSTITUTIONS—

Leper Settlement, Sungei Buloh, Selangor ...	2,490	
" Pulau Jerejak, Penang ...	460	
" Johore Bahru, Johore ...	350	
Leper Camp, Kota Bharu, Kelantan ...	45	
Leper Hospital, Kuala Trengganu, Trengganu	24	3,369
<hr/>		
Mental Hospital, Tanjong Rambutan, Perak	3,000	
" Tampoi, Johore Bahru ...	1,200	4,200
<hr/>		
Total—All Beds ...		20,236

NOTES ON CONDITIONS TREATED IN GOVERNMENT HOSPITALS

53. Full details are given in Table I of the Appendix. The following gives an indication of the commoner conditions treated in hospitals:

Diseases	Admissions	Deaths	Mortality per cent.
Malaria*	9,111	102	1.12
Pulmonary Tuberculosis ...	6,572	862	13.12
Dysentery	1,957	59	3.01
Diarrhoea and enteritis ...	6,247	1,017	16.27
Pneumonias	4,451	1,115	25.05
Bronchitis	7,192	69	0.96
Beri-beri	510	43	8.43
Venereal Diseases	921	67	5.13
Enteric Fever	1,042	54	5.18
Injuries due to external causes	26,314	743	2.82

54. The following table shows the distribution of the common diseases in the three principal racial groups but this cannot be taken as a true indication of the racial distribution of disease. The proportion of Malaysians who are treated as in-patients in hospital is small in relation to other races.

The number of Indians is disproportionately high because they are employed by estates and other agencies, and the employers insist on sending them to hospitals for treatment whenever necessary.

RACIAL DISTRIBUTION OF HOSPITAL ADMISSIONS AND OF COMMON DISEASES

Races	Malaysians	Chinese	Indians and Pakistanis	Others				
Population ...	2,967,233	2,286,883	713,810	90,391				
Total admissions to Hospital ...	52,040	111,514	76,666	6,017				
Diseases	Admissions	Deaths	Admissions	Deaths	Admission	Deaths	Admissions	Deaths
Malaria* ...	3,784	23	2,355	48	2,806	29	166	2
Dysentery and Enteritis ...	1,654	74	3,687	639	2,671	344	192	19
Pulmonary Tuberculosis ...	1,612	104	3,725	578	1,136	167	99	13
Pneumonias ...	722	122	2,206	677	1,457	301	66	15
Beri-beri ...	172	6	191	27	140	10	7	—
Appendicitis ...	358	3	1,262	13	471	1	78	1

* Includes other and unspecified forms of malaria.

55. **OUT-PATIENTS.**—All the hospitals have out-patient clinics. These are supplemented by static dispensaries situated in many of the towns. Treatment of rural population is carried out through travelling motor dispensaries. A certain amount of river travelling is also carried out in Johore, Pahang, Perak, Kelantan and Trengganu. Hospital Assistants in charge of static dispensaries travel by bicycle throughout their area to deal with places which the travelling motor dispensary cannot reach.

Pressure on out-patient department continues unchanged and most of these departments are inadequate in space for the reception of the numbers which are now attending them, and they are also inadequately staffed. Plans for the expansion of out-patient departments are being made in most States and Settlements.

A new out-patient department is to be built at the General Hospital, Kuala Lumpur, in 1956 and this should help to ease considerably the pressure on the hospital beds. A new out-patient department is at present being built in Seremban, and it is hoped that in the near future funds will be available for a new out-patient department in Malacca.

The total number of new cases treated at all dispensaries during the year was 3,130,055. Out of these 835,073 cases were at travelling dispensaries. This figure does not include attendances at the Maternity and Child Health Clinics and Venereal Disease Clinics.

Details of distribution of dispensaries and of the patients treated are given in the Appendix (Table 5).

56. **SURGICAL WORK.**—Seventy-one thousand and twenty-five surgical operations, major and minor were performed during the year: details according to States and Settlements are given in the Appendix (Table No. 3).

57. **OPHTHALMIC WORK.**—Sixty-five thousand one hundred and twenty cases were treated for diseases and injuries of the eye and 3,490 operations were performed. Details are given in Table 4 of the Appendix.

58. **RADIOLOGICAL WORK.**—Almost all the district and general hospitals are provided with efficient X-ray equipment.

Total number of patients X-rayed was 124,672 and the number of examinations was 196,661.

59. **PHYSIOTHERAPY.**—Departments of physiotherapy exist in Penang, Ipoh, Kuala Lumpur, Seremban, Malacca and Johore Bharu. Qualified physiotherapists are employed at these places and during the year 5,389 patients were treated.

PART V

TRAINING OF NURSES

60. Largely owing to shortage of girls with School Certificates, but partly owing to the somewhat unattractive conditions in hospitals for nurses in the Federation, there has been a deficiency of recruits to the nursing service. Three schools of

nursing were functioning during the year, but those in Johore and Kuala Lumpur were not running as full training schools. That in Penang, however, has been functioning fully, and with the completion of the new student nurse hostel in early 1956 built from Colonial Development and Welfare Funds it is hoped to concentrate all nurse training in the Federation in the Penang School, until such time as suitable conditions are available in Johore and Kuala Lumpur. In addition, training of male nurses, health visitors, and in ward administration is being carried out in Penang. The nursing position is particularly serious at present and it will be only when the three schools at Johore, Kuala Lumpur and Penang are turning out between them 250 nurses per annum that the position will be alleviated. During the year 15 girls were sent to Australia for training under the Colombo Plan, and the selection of a further 30 is now proceeding.

As from next year all student nurse provision will be taken over as a Federal commitment and States and Settlements will be requested to recruit assistant nurses against their existing student nurse provision.

Nursing Sisters are being recruited entirely from the local nursing service who are reciprocally registered with the General Nursing Council in the United Kingdom.

During the year the following post-graduate diplomas have been obtained by officers in the Federation Nursing Service:

Miss E. M. Hooper ...	Public Health Nursing Administration Certificate
Miss E. M. Kennedy ...	Diploma in Health Education, (University of Leeds)
Miss H. Blake ...	Hospital Admins. Cert. (R.C.N.)
Miss G. Suppiah ...	Mental Diseases Certificate
Miss Kooi Gim Ean ...	Sick Childrens Nursing Cert.
Miss Joan Yoong ...	S.C.M.
Miss Monica Chow ...	S.C.M.
Miss Agnes Lip ...	S.C.M.
Miss Tan Wai Chun ...	Health Visitors Certificate
Miss Lee Siew Mui ...	T.B. Nursing, Ward Admin. and I.W. Certificate.

The following nurses who were trained at the Health Visitors School, Penang obtained the Health Visitors Certificate of the R.S.H.:

Miss H. C. Augustine
 Miss Ho Mok Lan
 Miss Leong Swee Hoe
 Miss Mak Chyung Han
 Miss Mary Van Dort
 Miss Wong Ah Har.

The Second Public Health Visitors' Course commenced on the 14th July for one academic year with 8 students. The majority of these students have done their General Training post-war and they are already proving to be a very bright group.

The establishment locally of the Health Visitors and Ward Administration Courses will greatly reduce the numbers of officers sent overseas for training. It will still however be necessary to send abroad those nurses undergoing training as tutors, and in special nursing subjects.

61. MALE NURSES.—The training of all hospital assistants is now such that they will be enabled to register as nurses. These men who have played a large part in the build up of the medical services in Malaya, will eventually be replaced in ward duties by male nurses.

In this age of specialization, however, the hospital assistant capable of performing a multitude of duties must give way to the specialist. Where in the past the H.A. could perform the duties of nurse, dispenser, laboratory assistant, x-ray assistant, steward, statistical assistant, or storekeeper, it is obvious that in keeping with the times, the young man of the future who wishes to become a medical ancillary must decide his career at the outset, and train as a nurse, a pharmacist, a lab. assistant, a radiographer, etc., each of which requires specialised training.

Some concern has been expressed by estates where use of them has been made to run estate hospitals and health schemes, and indeed this concern is justified. The long term policy is for Government to provide the hospital services for estates and for lines sanitation and minor illness they will come within the sphere of the rural health scheme. The interim period, however, may provide some difficulties. To this end, however, discussions between planting representatives, and the D.M.S.'s staff have been conducted with a view to an interim solution.

62. ASSISTANT NURSES.—Destined to play an increasing part of the nursing services in the Federation it is hoped to step up the recruitment of assistant nurses in 1956. In all hospitals, but the student nurse training schools, assistant nurses will replace student nurses, and plans are being prepared to use the provision for student nurses in the State/Settlement estimates for assistant nurses, since in future all student nurses will be provided for in the Federal Estimates. Registration of assistant nurses as State/Settlement Enrolled Assistant Nurses will take place in 1956, and consideration is being given to a plan to recruit a total of 1,000 in that year to make up for the deficiencies in the nursing services. Certain of the hospitals in the Federation will become assistant nurse training schools and will be recognised as such by the Nursing Board, Federation of Malaya, when the registration of assistant nurses is approved.

The assistant nurse is gradually assuming an increasingly important role, and when the only training school for registered nurses at Penang functions freely, all other hospitals in the Federation will be run by sisters, staff nurses and assistant nurses, and only in Penang will student nurses replace assistant nurses. But hospital work will be only one of the functions, and it is hoped that as more become available, they will become the rural midwives, and assistant health nurses, so necessary for the efficient running of the rural health services.

63. The large hostel for 250 nurses at the General Hospital, Penang, is now nearing completion and is expected to be ready for occupation early 1956.

New Nurses' Hostels completed during the year include hostels at Batu Gajah General Hospital, and at Bukit Mertajam District Hospital, for assistant nurses and a hostel at the Kuala Lumpur General Hospital, for student nurses and sisters. Each of these will accommodate some 40 nurses and the accommodation is of a high standard.

SCHOOL OF NURSING, NORTHERN REGION, PENANG

64. NURSES TRAINING SCHOOL.—The Penang Regional Training School which was opened in 1947 utilized four sixteen bedded hospital wards. This has now proved unsuitable as the school has expanded considerably and accepts students from a wider area. In order to overcome the difficulty sketch plans have been submitted for a new Nurses' Training School in Penang which will eventually accommodate the whole of the students from the Northern Region.

The total number of nurses attending the School of Nursing, Northern Region, Malaya, during 1955 was 271, an increase of 24 over last year.

The courses given comprised of 2 Preliminary Courses with 99 pupils, 2 Block I Courses with 81 pupils, 3 Block II Courses with 82 pupils and 1 Ward Administration Course with 9 pupils. The pupils consisted of 191 female nurses, 67 male nurses and 13 hospital assistants. The total number of students who had passed in the terminal examinations were as follows: female nurses 144, male nurses 60 and hospital assistants 10.

Teaching.—Lectures were given according to the syllabus prescribed by the General Nursing Council of the United Kingdom. Many outside visits were arranged and films were also used during the class hours to implement the teaching. Practical cookery was also conducted.

Laboratory and Dispensing Technique.—The Senior Pathologist of the Institute for Medical Research, Penang Branch was responsible for giving instruction on Laboratory technique during the year and the Superintending Pharmaceutical Chemist, Penang, gave instructions on Dispensing technique to hospital assistants who were registered nurses. These two courses are now well established and the students successfully completed both courses in December, 1955.

Administration Course.—The first Ward Administration Course was held with 9 staff nurses in attendance. Although 20 staff nurses applied for the Course and sat the Entrance Test only twelve were selected, but due to staff shortage and other reasons three withdrew before the Course started.

All the students were successful in their examinations and received the Ward Administration Certificates.

General.—The School of Nursing assisted by the Education Department and voluntary organisations in Penang staged and

produced a "Pageant of History of Nursing" in October. This was a great success and has been successfully filmed.

The number of nurses who passed their final examinations in General Nursing throughout the Federation in 1955 was 98.

RECRUITMENT OF NURSES

65. In future, as all student nurses will be borne on the Federal establishment, and all Federal officers of Division III or up must be selected by the Public Service Board, a change in the method of recruitment will be necessary. In its early stages, the Board, with a tremendous amount of work to perform, was unable to conduct the interviews necessary at the time the candidates for nursing presented. Intakes of nurses are now twice or three times a year when a Preliminary Training School is held but it is advisable that when a suitable girl makes up her mind to train as a nurse, to take her in as soon as possible. Delay in recruitment, leads to the applicant applying elsewhere for a job and instances are known where girls desirous of nursing in the Federation have got tired of waiting and have applied to Singapore and been accepted there. It is felt that the system of recruitment is unsuitable for nursing and that student nurses should be selected by the matron and senior tutor of the School of Nursing. It is thought too, that if possible such students should be given a training allowance rather than a salary and be admitted to Government service only on completion of training, when selection of suitable trainees would be made by the Board. The shortage of nurses is so great that any artificial restriction which interferes with recruitment should be removed. The principle enunciated here, the recruitment and training of staff without eventual guarantee of a place in Government service, is one which the Establishment Office finds it difficult to accept, but it is felt that only by some such measure, which would be equally applicable to all medical departments trainees, will satisfactory staffing be maintained. As Government hospitals are the only training organisations for nurses in the country it is incumbent upon the Government to train girls who may eventually seek an outlet outside Government.

PART VI

DENTAL

66. During the year there was expansion of Dental Services in the Federation, particularly in Perak, Kelantan, Johore, Negri Sembilan and Penang.

Most of the vacancies on the Permanent Establishment were filled during the year and now there are 55 Dental Officers and six Dental Housemen working in various States and Settlements, assisted by 53 Dental Nurses and 20 Dental Technicians.

The above staff has to deal with a School children population of about one million. The Dental Officer School children ratio is one for 20,000 school children and a combined population

ratio of one officer to 160,000 of the population. United Kingdom ratio is one officer to 3,000 school children and in the United States one officer to 1,700 of the population.

Due to shortage of staff hardly 20 per cent. of the school children in the country receive adequate treatment.

New Centres and Clinics were mostly incorporated in the new Health Centres in the rural areas. No new separate dental clinics were constructed in 1955, except one in Pulau Jerejak for lepers and tuberculosis patients. Most of the clinics are adequately equipped and only a few are below standard.

There is a Maxillo-facial hospital Dental Clinic in Penang and two clinics, one in Ipoh and one in Kuala Lumpur to deal with Police personnel. In addition there are three part time clinics for the treatment of Malay Regiment ranks in Port Dickson, and clinics for the treatment of lepers in Sungei Buloh and Pulau Jerejak.

With practically the same staff as in 1954 and with seven dental officers posted towards the end of the year the volume of work done as compared with 1954 is very satisfactory as it shows considerable increase in most of the sections.

Comparative figures of three of the important sections are:

	1954	1955
Attendances	363,310	441,279
Extractions	259,061	304,679
Fillings	159,485	224,344

An encouraging factor to note is the increase in fillings which indicate the number of teeth saved from decay.

Dental policy has remained the same with emphasis on School Dental Treatment, Ante-Natal Cases and Hospital Cases. Emergency Dental treatment is also provided for the poor. Emphasis has recently been placed on dental treatment to children in the rural areas. This has been achieved by the opening of dental rooms in rural health centres and by the use of eight Mobile Clinics. One marine dental clinic is under construction for riverine work in the Perak River area.

67. DENTAL NURSES TRAINING SCHOOL.—This institution has functioned well throughout the year in spite of several severe handicaps, the most acute of which was lack of proper hostel accommodation.

The usual new July draft trainees did not materialise during the year due to the introduction of a different system of selection. The draft was not finally selected till December.

Shortage of funds did not permit the installation of any new equipment or the replacement of old.

Ten girls qualified during the year and were posted to various States and Settlements to finish their probationary period for one year and four months in the field under the direct supervision of a Dental Officer.

68. SCHOOL DENTAL NURSES.—It is becoming more apparent that a partial solution to the problem of a School Dental Service is with these girls. Some modifications in their control and training will be implemented in 1956 to better fit them to their task.

The experiment of training them straight from a Passed School Certificate Class has turned out to be extremely successful and their work in the field after training has been very good. Their handling of small children has been excellent.

69. DENTAL TECHNICIANS SCHOOL.—The School remained full throughout the year and it also accepted students from Sarawak in addition to local students from the Federation.

The syllabus was revised and improved, and additional practical work in the Junior Trade School was arranged.

Shortage of floor space in the School will not permit further expansion or the provision of modern equipment.

PART VII

SPECIAL INSTITUTIONS

70. INSTITUTE FOR MEDICAL RESEARCH.—The Institute for Medical Research is a Federal Institution, administered as a branch of the Medical Department. The Laboratories are maintained by the Federal Government, but financial support for the research work comes also from the Government of Singapore and the Colonial Research Council, while an American medical research team, working in the laboratories on the virus diseases of Malaya, is financed by the United States Treasury. The main buildings are in Kuala Lumpur where the laboratories are organised on a divisional basis for bacteriology, biochemistry, pathology, entomology, malariology, nutrition, virus diseases, medical zoology and vaccine production; and there are branch laboratories in Perak, Penang, Negri Sembilan and Kuantan. Founded in the year 1900 to investigate the diseases of Malaya, the Institute remains primarily a research institution, though a closer integration with the medical services over the years has brought responsibilities for the provision of routine pathological services and the manufacture of biological products.

71. MALARIA 1946-1955.—In 1938, the last pre-war year for which detailed statistics are available, 732 patients died from proved malaria in the government hospitals of the Federated Malay States of Selangor, Perak, Negri Sembilan and Pahang; in the same hospitals 41 persons died from malaria in 1954—an eighteen-fold reduction. The advances of the post-war decade in treatment and prevention are mainly responsible for this change. Before the war, malaria control was based on the traditional anti-larval methods of Watson; treatment still depended largely on quinine. Mepacrine (atebrin), a synthetic compound produced in Germany in 1932, was used sparingly, both for prevention and treatment, though the high efficiency of the drug as a preventive was known in Malaya as early as 1936. Very different was the

position at the time of the re-occupation of Malaya in 1945. New insecticides which retained their potency for months on the walls of houses had been discovered, the prophylactic efficiency of mepacrine had been confirmed by the work of Fairley in Australia and the experience of the armies in Burma, and new and still better drugs were in the offing. The steady regression of malaria in Malaya over the post-war decade reflects a changed strategy exploiting the possibilities of these new resources.

Rural malaria control.—The war-time advances, promising though they were, could be accepted only with reserve for Malayan conditions. They had to be tested and proved; and to this end a malaria field station was established by the Institute in 1946 at Tampin in the State of Negri Sembilan. Experimental trials of the new insecticides, DDT and BHC (Gammexane), as house sprays for malaria control began in 1948, first in experimental trap-huts and then in the kampongs of the Malays. Both insecticides were lethal for *Anopheles maculatus*, the principal malaria carrier of Malaya; yet three years of house spraying failed to eradicate *maculatus* from the Inas and Nuri valleys of Negri Sembilan. *Anopheles maculatus* rests out of doors, and bites animals as well as man, and not all make contact with the insecticides. But a significant proportion was destroyed, and the effects on the malaria, though slow to appear, were good. House spraying with DDT or BHC has since been accepted throughout the Federation as the best method of rural malaria control.

Biology of the vectors.—Meanwhile there was much detailed work on the habits of the malaria vectors, especially *A. maculatus*, their daytime resting places, their swarming in nature and their feeding preferences. Studies were made of their behaviour and mortality in huts treated with DDT, BHC and dieldrin, and of the systematics and biology of the *A. leucosphyrus*, *umbrosus*, and *hyrcanus* groups.

Larvicides.—At the same time as the insecticides were tested against the adult malaria vectors, they were tried also as larvicides, and practical means of applying them for routine anti-malarial work, in place of the traditional but much more expensive oil, were worked out.

Drugs.—Three important drugs for the treatment and prevention of malaria, proguanil (Paludrine), chloroquine (Resochin, Nivaquine, Avloclor, Aralen), and amodiaquine (Camoquin), were developed during the Second World War; a fourth, pyrimethamine (Daraprim), appeared in 1951. Proguanil was the first to be used in Malaya. The results were very good; a single dose of 100mgm relieved most malaria attacks; and a single weekly dose of 100-200mgm suppressed most infections. But an unforeseen drawback was soon evident. Seaton and Adams showed that a resistance to the drug could be induced experimentally in *Plasmodium falciparum*, and resisting strains, first of *P. falciparum*, then of *P. vivax*, appeared in Malaya. The resistance in *P. falciparum* was not restricted to the blood forms; it affected also the pre-erythrocytic forms and gametocytes which are normally sensitive. By this work, and by experience elsewhere, the role of proguanil was slowly defined. In Malaya to-day the drug is not used for

treatment, but the experience of the Security Forces and rubber estates has confirmed its value for prophylaxis in areas where there is no serious resistance problem.

Chloroquine is rather like mepacrine in its effects on malaria, but it is more active and has a wider safety margin. Trials at the Institute, begun in 1947 and continued over several years, were very encouraging. The drug was a very active remedy in acute malaria—all but the most serious infections responded to a single dose of 600mgm base; it was an excellent malaria suppressive, and did not induce resistance in the parasites.

Amodiaquine (Camoquin) resembles chloroquine in its action. Trials at the Institute, begun in 1948, showed that the two drugs were equally active in the treatment and suppression of malaria.

Pyrimethamine (Daraprim), the only significant remedy for malaria introduced since the war, has been disappointing in Malaya. Therapeutic trials at the Institute began in 1951; the clinical response in acute malaria was slow and uncertain. Like proguanil, the drug may induce resistance in the parasites and a cross-resistance between pyrimethamine and proguanil is possible; but the significance of pyrimethamine resistance in the Malayan organism is not yet clear. Elsewhere in the world, pyrimethamine has been used very successfully for malaria prophylaxis; no prophylactic trials have yet been made by the Institute.

Parasitology.—The post-war studies of the Institute on the parasites of human malaria have been related mainly to the problems of microscopic diagnosis. They include a morphological account of the Malayan organisms in stained thick and thin blood films, and a study of the prognostic significance of blood examination in acute falciparum infections. Malayan parasites have been sent to other parts of the world for further study—*Plasmodium falciparum* to Nairobi, *P. vivax* to the University of Chicago, and *P. malariae* to the Ministry of Health Malaria Reference Laboratory at Epsom. The parasites have been established in fresh hosts at these centres and it is hoped that the prolonged observations now possible will throw new light on the clinical course of the infections and on the response to treatment.

Malaria parasites of animals.—The malaria and malaria-like infections of animals have contributed to our knowledge of the life history and biology of the species infecting man, while the development of the modern remedies for malaria would scarcely have been possible without a patient "screening" in mammalian and avian infections. The minor contributions in this field from the Institute since the war include an account of a malaria-like parasite of the Malayan squirrel and of the pre-erythrocytic development of the organism in the liver, an account of the presumed exoerythrocytic forms of *Plasmodium knowlesi* in the liver of the Malayan "kra" monkey, *Macaca irus*; and the isolation at the request of the Director of the Malaria Institute of India of a virulent Malayan strain of *P. knowlesi*. Recovered from a "kra" monkey, and now maintained at several laboratories in India and England, this knowlesi strain has been named the Nuri strain, after the valley in Negri Sembilan where the monkey was trapped.

Various blood parasites of the genera *Plasmodium*, *Haemoproteus*, and *Leucocytozoon*, have been identified in Malayan birds; and a *Babesia* which produces incredibly heavy infections in the white rat has been recovered from a jungle rat, *Rattus sabanus*, trapped in the King George V forest reserve.

Current work—During 1955 the work of the Institute on malaria followed a similar pattern, but at a lower ebb from the diversion of resources to the more challenging problems of filariasis. Therapeutic trials confirmed that chloroquine and amodiaquine are the most effective known remedies for acute malaria in Malaya. Strains of *P. falciparum* resistant to proguanil and pyrimethamine were still encountered; and the earlier indication that resistance to proguanil in the blood forms extends also to the gametocytes and pre-erythrocytic forms was confirmed. Three Malayan strains of *P. vivax*, from Taiping, Kepong, and Fort Sinderut in Pahang, were sent in mosquitoes and refrigerated blood to America where their behaviour is being studied by Dr. A. S. Alving, University of Chicago. Early in the year a study of the factors affecting the transmission of malaria by *Anopheles maculatus* was made at Ulu Langat, Selangor, during a three-month visit by Mr. G. Davidson of the Ross Institute of Tropical Hygiene. Observations were planned to give data similar to that already obtained in Africa and should thus provide a valuable standard for the comparison of malaria transmitted under widely differing conditions.

72. SCRUB TYPHUS 1946-1955.—Scrub typhus proved to be of grave importance during the war, many units being severely crippled by it while one division alone suffered over 1,600 cases in twelve months. Emergency measures and research were greatly indebted to pre-war investigations in this Institute, by Fletcher Gater, Lesslar, Lewthwaite, Savor and others. The disease had been closely studied in man and laboratory animals, vector surveys had been made, the separate identity of scrub (mite) typhus and urban (flea) typhus had been established, and attempts had been made to produce a protective vaccine. During the war, Australian, American and British workers had developed a chemical treatment of clothing with mite-poisonous phthalates and had evolved an experimental vaccine. Considerable advances were made by an American laboratory at Myitkyina and a British laboratory at Imphal. But there was still no effective treatment of the disease, while the reasons for the occurrence of the numerous highly infected "islands" of scrub were not sufficiently understood.

This in the barest outline was the position after the war. Despite the intensive war-time studies there were significant gaps in our knowledge. The disease had spread in neglected areas of *lallang* and *blukar* cleared by the Japanese to grow food; even parts of the Lake Gardens and the Golf Course in Kuala Lumpur had become a source of infection. Continued work was clearly necessary, and in 1947 at the invitation of the Malayan Government, a Scrub Typhus Research Unit was raised, equipped, and sent to Malaya by the Colonial Research Council for a long term study of the disease. Hard on the arrival of this Unit, the Government of Malaya welcomed a group of American workers whose

mission it was to study the value in treatment of a newly-discovered antibiotic, chloromycetin. An approach to all the outstanding problems was now possible, and research was directed towards treatment and prevention of the disease in man with drugs or vaccines to the vectors and animal hosts in relation to the development and persistence of infected "islands" of scrub, and to the control of the infection by chemical or other means.

TREATMENT AND PROPHYLAXIS IN MAN

Chemotherapy.—The modern and now classic treatment of scrub typhus dates from 1948 when American workers at the Institute demonstrated the dramatic effect on the disease of Chloromycetin (chloramphenicol). The group, representing the U.S. Army Research and Graduate School, the Commission of Immunization of the Army Epidemiological Board, and the University of Maryland, arrived in Kuala Lumpur in March, 1948. Working in collaboration with the Institute and the Malayan Medical services, they showed that oral doses of the drug to a total of 4.0-6.0g over 24 hours controlled the fever in an average of about 30 hours from the first dose. The disease was reduced from a serious protracted illness, which had to take its full course, to a short febrile episode. Equally gratifying was the curative activity of Chloromycetin in murine typhus. The original Chloromycetin was a naturally occurring antibiotic obtained from the mould, *Streptomyces venezuelae*, originally recovered from a sample of Venezuelan soil. A year later Crooks and his co-workers produced chloromycetin by chemical synthesis. Tested on scrub typhus patients in Malaya the natural and synthetic products were equally active. Later studies comparing Chloromycetin, Aureomycin and Terramycin, showed all three antibiotics to be active remedies for scrub typhus.

Chemoprophylaxis.—The simplicity, certainty and safety of chloromycetin treatment in scrub typhus opened up the possibility of chemoprophylactic trials in the field; and during 1948 and 1949 some two hundred volunteers of all races cheerfully and courageously exposed themselves to the disease in a highly infected area in Selangor. The results of five trials showed the protective value of the drug. Given for three weeks at a dosage of 1.0g daily from the first day of exposure, the drug delayed infection until about ten days after the last dose; but weekly doses of 4.0g, beginning a week after the last day of exposure and continued for six weeks, gave full protection against over attacks. The drug, it seemed, had a suppressive action: the infections were kept smouldering at a low level until there was enough immunity to complete the cure. The applications of chemoprophylaxis are limited, since the antibiotics cannot be safely given over long periods.

Scrub typhus is not naturally a relapsing disease; no relapses were observed in the early trials in hospital patients. In sharp contrast was the high incidence of relapses in the infections acquired during the chemoprophylactic trials among the volunteers in the control groups. The relapses were apparently related to the earliness and shortness of the treatment which was usual in these trials, the drug being rapidly excreted. Relapses responded

normally to treatment, and could be prevented by a supplementary dose of the drug eight or nine days after the first onset of fever.

Immunization.—Towards the end of the war a prophylactic vaccine for scrub typhus, prepared in England as an emergency "Operation Tyburn" from the lungs of infected cotton-rats, was ready for use in Burma, but the campaign ended before the vaccine could be fully tested in the field. A supply was diverted to the Institute: the immunizing potency of the vaccine in mice was confirmed, but the exposure of volunteers in Malaya graphically demonstrated that standard vaccines were of no value in preventing infection, probably because of the presence of different strains of virus. Would it be possible to immunize safely with a living vaccine? Active infection was known to confer immunity for months or years against similar strains of the organism, *Rickettsia tsutsugamushi*, and the subjects could be protected during active immunization by an antibiotic drug. Studies by the Americans at the Institute showed that safe and effective immunization could be achieved by a viable vaccine and appropriately timed doses of chloromycetin. Clinical symptoms were completely suppressed. Immunity against the same strain of *R. tsutsugamushi* persisted at a high level for a year or longer; but immunity against different strains was transient. Though the disease was clinically suppressed the organism could nearly always be found in the blood. A single mouse-infective dose of the organism was enough to induce infection in man. An interesting sideline was the recovery of *R. tsutsugamushi* from a lymph gland of a volunteer fifteen months after infection.

NATURAL HISTORY AND CONTROL IN THE FIELD

It was already known in 1947 that the animals concerned in scrub typhus included some economically important rats as well as animals which were apparently involved in a number of bacterial, leptospiral, and viral diseases transmissible to man. Similarly, the many biting parasites were likely to be involved in carrying various infections. After a reconnaissance survey, the Scrub Typhus Research Unit therefore decided to investigate the whole assemblage of animals and external parasites on a broad front, with special attention to the commoner rodents and the trombiculid mites which carry scrub typhus. Each visiting American team added to the growing pool of data, and in addition, some valuable surveys deep within forest were carried out in Borneo by joint Anglo-American teams with financial support from U.S. Army sources. Some 50,000 animals and birds of 270 species, and nearly two million parasites (including trombiculid mites of 130 species, 95 being hitherto unknown) have been collected and are still being studied. This is probably the most intensive and extensive survey of its kind in the world. Some general accounts of these collections have been published and their study has been found to have wide application in such fields as leptospirosis, the yellow-fever hazard, medical geography, certain problems of land-usage, and aspects of economic ecology which are the subject of papers in preparation.

In addition, a topographical study of the relationship of scrub typhus to land-usage was started. The basic work has been

published and since then several thousand cases of scrub typhus have been plotted on maps and indexed for analysis.

Taxonomy.—Accurate identification of vectors and animal hosts or disease reservoirs is absolutely necessary and this basic work on the rich Malayan fauna has taken much effort, partly among the animals, but particularly in the less-explored fields of trombiculid mites, ticks, and other parasites. One of a series of studies devoted to Malaysian parasites has been published and another is nearly ready for the press.

Vectors.—The two principal vectors of scrub typhus, *Trombicula akamushi* and *T. deliensis*, are both present in Malaya where they have been proved to infect man. Post-war investigations on the virus itself, in mites as well as man, have been largely carried out by the American unit in connection with investigations already described, except for one study of the hereditary transmission of infection in the vector: evidence was gained that transmission through the eggs to following generations was capricious. *T. deliensis* is the more widespread species but *T. akamushi*, which appears to have been more recently introduced, builds up especially heavy concentrations although more restricted in distribution. A great deal of basic information about these mites has accumulated, only part of which has been published.

Deforestation and settlement have, for example, reduced the number of species of rodents and insectivores in an area of Selangor from 49 in the forest to 15 in alienated land and only 5 in towns—the species of trombiculid mites have similarly been reduced from 58 in forest through 16 to only 2 in towns. Accompanying this great reduction is the appearance of species introduced from outside Malaya and a much greater population density of the remaining few. This has produced the conditions necessary for the creation of infected “islands”, the virus escaping from silent forest or jungle infection among various animals and mites. The existence of this jungle infection was wholly unsuspected before war-time investigations. Evidence for jungle typhus in Malaya has been confirmed in a dominant tree-squirrel mite—this is a basically important finding.

Potential Reservoir Animals.—These have been studied with wider interests in view. The numbers, distribution, and behaviour, details of reproduction rates and rhythms and their relation to rainfall and moonlight, as well as important information on feeding habits have been discovered for many animals and especially those rodents which are economic pests or disease-reservoirs. The great prevalence of insects in the food of small animals is striking. The field-rat or sawah-rat *Rattus argentiventer* thrives in open lalang and is chiefly responsible for “islands” of scrub-typhus infection: it apparently lives largely on the termites which thrive in the remnants of wood left in cleared land, but it also attacks growing rice.

Control.—Methods of preliminary survey, followed by chemical control with or without rat control have been discussed. The most effective method yet known, by fog-spraying dieldrin or aldrin at 2½ lbs. per acre, was discovered by experiments

undertaken jointly in Borneo and Malaya by the U.S. Army Unit and the Institute workers. Since then this method has been used successfully in completely eradicating an important infected focus in a residential area in Singapore.

Post-war research in Malaya has thus provided a rapid cure, reducing the mortality from this formerly serious disease to nil in treated cases. Personal protection is possible by chemical treatment of clothing and by combining a live-vaccine with suppressive doses of antibiotics. The occurrence of silent reservoir infections in the jungle is established and the evolution of the disease outside the forest, in a form dangerous to man, is clearly related to land-usage. Understanding of the types of land-usage which encourage infection has progressed greatly—it must be recognised that proper land-usage is the final answer to this problem, for all other forms of control are expensive, and a guiding principle in all this work is that prevention is more economical than cure. Infected “islands” of scrub can be controlled or eradicated by insecticides such as dieldrin or aldrin. Finally, a comprehensive picture is being built up of the complex assemblage of animals and parasites, an understanding of which is necessary in the study of a number of other infections transmissible to man.

73. VIRUS DISEASES, 1951-1955.—Research on the virus infections of Malaya is still in its infancy. Ample resources and special methods are necessary and only within the past few years has it been possible to attempt any serious work at the Institute in this important field. A separate Division of Virus Research and Medical Zoology was formed in March, 1953, absorbing the Colonial Office Scrub Typhus Research Unit, and in June, 1953, the Division was accommodated in new laboratories, built by the Federation Government for the special needs of virus research. Provided with the material resources, assisted by a financial grant from the Colonial Research Council, and associated in adjacent laboratories with the virus workers of the U.S. Army Medical Research Unit, the new division was launched under favourable circumstances. Excellent progress has been made, though the work done emphasises how many are the problems still awaiting solution.

Sustained work at the Institute on the virus diseases of Malaya began four years ago with the isolation by the American group of the virus of Japanese encephalitis (JE) from a fatal human infection in Kuala Lumpur. Stimulated by this discovery the work was extended to include dengue, influenza and the jungle and other unknown fevers, and to examine the potential but very real threat to Malaya of yellow fever. In 1954 a conference on virus diseases, organized by the Colonial Office and attended by experts from various parts of the world, was held at the Institute. The timing was fortunate, and later work has been guided by the recommendations made.

Japanese encephalitis.—The first proved case of Japanese encephalitis in Malaya occurred in 1951. The infection was fatal and the virus was recovered from the central nervous system. Later work indicated that serious infections are rare, but that a high proportion of the population in urban and rural communities

have antibodies to the virus, presumptive evidence of previous infection. Among the aborigines on the forest fringe, on the other hand, these antibody trails were less common. The first human infection recognized was apparently associated with an epizootic in race-horses of a central nervous system disease which was shown also to be due to JE virus, and tests on sera from a variety of animals revealed a very high incidence of JE antibodies in pigs and cattle, a moderate incidence in sheep, goats, dogs, and cats, but a very low incidence in forest animals. In the meantime the virus was recovered from at least two species of culicine mosquitoes, *Culex gelidus* and *C. tritaeniorhynchus*, known to bite both domestic animals and man.

The fevers of unknown origin.—The jungle and other unknown fevers seemed to be a particularly useful field of enquiry. Is it possible that some of these fevers are due to viruses, known and unknown? If viruses are a cause, are they arthropod-borne with reservoirs in the animals and insects of the forests? With these considerations in mind, two groups at the Institute have been working along complementary lines to clarify the situation. The American group is attempting to recover viruses from hospital patients with undiagnosed fevers, and from wild-caught mosquitoes; the Institute group is concerned mainly with the incidence of virus antibodies in man and domestic and forest animals. Tests on Malayan sera, done mainly in America, have revealed antibody trails of viruses which occur in the African or American forests. Ntaya, Ilheus, Zika and Semliki Forest virus antibodies were common, and there was evidence suggesting the presence in Malaya of Uganda S and Bunyamwera viruses. There were indications too, that infections with type 1 and type 2 dengue viruses were probably widespread. What relation some of these viruses may have to disease in man is still unknown. Meanwhile, attempts to recover viruses from wild caught mosquitoes, and from persons with unknown fevers, went ahead. During 1954 and 1955, some 400,000 mosquitoes were trapped, identified, pooled, and inoculated into mice; seventeen transmissible agents have been recovered from mosquitoes since the work started in 1954; ten have been identified as JE virus while the identity of the rest is not yet known. Attempts to recover viruses from hospital patients with undiagnosed fevers, unsuccessful at first when the patients studied were adults, are now more promising; six viral agents of unknown identity have been recovered from 250 sick children with undiagnosed fevers. No clear interpretation of these complex data is yet possible.

Dengue.—Although dengue has been recognised in Malaya on clinical grounds for many years, decisive proof came only in 1954 with the recovery of three strains of type 1 dengue virus from human cases investigated by the Institute during an outbreak in a Kuala Lumpur Girls' School. Since then, serological studies have shown that the neutralisation test is the only specific diagnostic method available, although the cheaper and quicker haemagglutination inhibition is useful for screening cases. Infection with a dengue-like virus has been shown to account for about one third of the undiagnosed fevers at the Kuala Lumpur General Hospital, where the patients are mainly towns-folk, and for about

one-twentieth of the unknown fevers contracted by soldiers during jungle operations. There is reason to believe that some of the fevers were due to infection with a related virus as yet unknown.

The incidence of neutralising antibodies to type 1 dengue virus in persons living in rural communities had been found to be about 25 per cent. before the age of 10 years, and nearly 100 per cent. by the age of 30 years. Infections seemed to be fairly evenly distributed throughout the country, including the mountains. A high incidence of antibodies to dengue, or to a closely-related virus, has been found in tree-dwelling forest animals, suggesting that there may be a forest reservoir of dengue resembling that of yellow fever elsewhere.

Yellow Fever.—One of the recommendations of the Conference on Virus Diseases, held at the Institute in 1954, was that work should be done to assess the risk to Malaya of yellow fever. Sera from a variety of Malayan wild animals have since been tested for yellow fever antibodies at the Virus Research Institute, Entebbe, Uganda. The results were consistently negative. Similar tests at the Institute on human sera have also failed to show decisive evidence of antibodies. There is thus a fair inference that the human and animal population of Malaya are susceptible to the disease. Mosquito surveys have shown that *Aedes aegypti*, the vector of urban yellow fever elsewhere in the world, is widespread in Malaya, as is the closely-related mosquito, *A. albopictus*. Surveys in sixty Malayan towns and villages have revealed *aegypti* indices of 30-60 per cent. in shop and slum houses. House spraying and "perifocal" spraying with DDT has given good control in experimental trials. Tests at Entebbe indicate that *A. aegypti* from Malaya is a good vector of yellow fever.

Influenza.—The Institute is an Influenza Observation Centre for the World Health Organisation. In 1954, three strains of an A Prime virus were isolated, two from an outbreak on an estate population, and one in Kuala Lumpur. In 1955, strains of type B influenza virus were recovered from an epidemic in a boys' boarding school; another outbreak in the Malay Regiment at Port Dickson was found on serological evidence to be due to the same type of virus.

74. NOXIOUS ANIMALS, 1946-1955—*Venomous Animals.*—A collection of over 300 snakes made by the zoology laboratory has given useful information about the distribution and frequency of poisonous snakes.

Leeches.—These are a serious pest to security forces and others who have to work in the forest. An observation made in Borneo by a joint U. S. Army and Institute team led to a series of joint experiments which showed that complete protection from leeches could be gained by various chemical treatments of clothing. These chemical mixtures, in several different series, rapidly kill leeches. They were originally intended for "universal" protection against vectors of disease such as mosquitoes, ticks and trombiculid mites: leeches may now be added to this list.

75. BACTERIOLOGY, 1955—*Antibiotics.*—Malayan moulds of the genus *Streptomyces*, obtained from various sources, including

soil, have been shown to produce a considerable range of antibiotics, including two which are already known, Neomycin and Xanthomycin. Work in this promising field continued throughout the year. From some 4,000 strains of *Streptomyces*, 223 were selected for further investigation at antibiotic stations in the United Kingdom. Other studies include an assessment of the increasing resistance of common pathogenic bacteria to the six commercial antibiotics now in current use.

Salmonella infections.—By the use of improved cultural methods, salmonella infections have been found to account for about a quarter of all “enteric” infections. Paratyphoid infections are comparatively rare (4 per cent.), while typhoid infections still account for nearly three quarters of the “enteric” fevers.

Phage types of the typhoid bacillus.—By the use of specific bacteriophages, various phage types of the typhoid bacillus have been recognised. The distinctions are potentially useful in tracing the source of epidemics. With the help of Dr. Wilson, of Melbourne University, a start has been made in phage typing of Malayan strains; 62 strains have been examined and 35 strains have been typed. The pattern of phage types appears to correspond with that found in countries which have frequent sea or air contact with Malaya.

Melioidosis.—Infection with *Pf. whitmori* was found on four occasions during the year, three times from human sources, and once from a goat. One strain was recovered from a neck abscess, a second from an abscess near the thoracic spine, and a third from an empyema. Two patients are believed to have made a complete recovery on prolonged antibiotic treatment. *In vitro* tests of sensitivity to various antibiotics, made on one of the strains, suggested that a combination of Chloromycetin and Aureomycin would be most effective. Serological tests for the detection of sub-clinical infections have not been encouraging. A healthy looking goat, slaughtered at the Kuala Lumpur abattoir, was found to have multiple spleen abscesses from which *Pf. whitmori* was recovered.

Infections with chromobacteria.—Earlier reports have recorded fatal chromobacterial infections in Malaya. During the year the organism concerned, the red *Chromobacterium prodigiosum*, was recovered from purulent exudates in several non-fatal cases.

Infection of piped water supplies.—It is the general view that water supplies are most liable to contamination at their catchment area source, and preventive measures are hence taken at the head-works. Malayan experience over the past thirty years suggest that, under particular conditions, the terminal supply pipes may be a source of infection. No typhoid epidemic from the contamination of water at the source has ever been reported in Malaya, but there is evidence that the infection of pipes within the delivery reticulum of towns may have been the cause of two epidemics. The report of the Division of Bacteriology discusses the factors which may be involved.

76. BIOCHEMISTRY AND NUTRITION, 1955—*Anaemia.*—Therapeutic and biochemical investigations were continued during

the year on 238 patients with severe anaemia admitted to the General Hospital, Kuala Lumpur. Serum iron levels and iron stores in the bone marrow suggest that most of these patients have a severe iron deficiency upon which various degrees of megaloblastic anaemia may be superimposed. A study of the pattern of iron metabolism in these anaemias has begun, using the radioactive isotope Fe, the necessary equipment having been provided by a financial grant from the Colonial Research Council. The report of the Division of Nutrition summarises the progress made during the year towards an understanding of the complexities of the problems.

Anaemia and hookworm infestation.—The significance of hook worm infestation as a cause of anaemia in Malaya is not well defined. An attempted correlation of the presence of hookworm ova with the haemoglobin percentage in iron deficiency anaemias gives data on this problem. At the higher haemoglobin levels the average incidence of hookworm infestation was 15 per cent. but at the lowest haemoglobin levels the incidence rose steeply to 65 per cent. Some twelve hundred samples of faeces were examined using a flotation technique.

Enriched rice.—The proprietary name "Premix" has been given to a rice artificially enriched with certain nutrients. Two potentially valuable supplements are thiamine (vitamin B) and iron, nutrients in which many Asian diets are deficient. A limited trial of rice enriched with these two nutrients, started last year, has been completed. With the co-operation of the rubber planters, the estate doctors, and the Supplies Department, ten estates received supplies of rice enriched with "Premix", and another ten estates received their normal supplies. There was no frank beri-beri in these communities and it was realised that the effect of the thiamine would be difficult to assess, but haemoglobin levels, it was thought, might give some indication of the effects of the supplementary iron. Haemoglobin estimations in each group were made at three-monthly intervals. The results await statistical analysis.

Parboiled rice.—Palatability trials on a small scale, designed to assess the acceptability of an improved type of parboiled rice, have given promising results. Most of the Malays, Chinese and Indians, who normally eat highly milled white rice, have said that they would buy the improved type of parboiled rice if it were available on the market. A report on this subject, including suggestions on future policy with regard to the improvement of the nutritional value of rice, has been prepared for the consideration of Government. Pending a decision on future policy no further work on the laboratory scale on parboiled rice is contemplated.

Thiamine and vitamin A.—A study of the thiamine (vitamin B) levels of milk from women of the three principal racial groups in the country has continued. A full report on the "normal" thiamine levels and on the effect of oral and parenteral administration of supplementary thiamine on the milk thiamine level has been accepted for publication elsewhere. Work is now

proceeding to determine a "critical level" for milk thiamine, below which a risk may exist of the development of infantile beri-beri in the breast-fed child. Preliminary work has begun for a contemplated survey of serum vitamin A and carotenoid levels in nursing women. A micro spectrophotometric method is being developed for the estimation of serum vitamin A and carotenoids, which, it is hoped, will be an improvement on the method now in use.

Small rice mills.—The thiamine content of rice samples received for analysis from small rice mills continues to be low; eleven samples produced by small power-driven plants in Negri Sembilan and Perak were examined during the year in the Division of Biochemistry; one only had a satisfactory thiamine content. Research by engineers, based on the knowledge gained in recent years of the distribution of nutrients in the rice grain and aimed to develop a better type of small power mill, would appear to be overdue.

Fish meal.—Work on fish meal has continued with analysis and storage trials of samples of meal produced by the Department of Fisheries. The protein and calcium content of the meal is fairly high, but much work is necessary to define the conditions of safe storage under local conditions.

Animal nutrition.—Working in co-operation with the Veterinary Department, the Division of Biochemistry is continuing a study of the blood levels of calcium and phosphorus in cattle and buffaloes in relation to a disease condition resembling osteoporosis. Buffaloes given a supplement of 4 ounces of bone flour daily for a few weeks showed a rise in the blood inorganic phosphates. The value of this supplement given over a longer period is still to be assessed.

A magnesium content below the "tetany" level has been found in a few samples of calf blood received from the Veterinary Officer, Kluang, Johore. Hypomagnesaemia has not previously been reported in Malaya but is said to be a rare condition in calves in other countries. Further investigation is contemplated.

Nutrition education.—Close co-operation has been maintained with the Department of Education, at both Federal and State levels, on various aspects of nutrition education. The pamphlet entitled "Good Health through Good Feeding", in English and Malay, has been published by Messrs, MacMillan and Company, and a school reader, entitled "A Day in the Country", explaining the rules of health in story form, is in course of publication. Lectures on nutrition have been given to members of the St. John Ambulance Malaya Relief Teams, to delegates attending the St. John Ambulance Brigade Annual Conference and to those attending the Conference of Workers for the Blind. A short discussion, entitled "Enquiry on Malnutrition" was given over Radio Malaya in February. A member of the staff of the Division of Nutrition, Miss E. B. Cheek, attended the W.H.O./F.A.O. Seminar on Nutrition and Health Education, held in October at Baguio City in the Philippines.

77. PATHOLOGY, 1935—*Cancer*.—The Division of Pathology has completed a preliminary survey of the geographical pathology of cancer in Malaya and the results are being analysed. The Division is also co-operating in an attempt to identify the cause of the "betel cancers" prevalent among Indian labourers in Malaya. It has long been thought that these cancers are due to the habit of betel chewing, but all the evidence is indirect and there is no proof that the betel quid, or any particular component of it, is carcinogenic. The National Cancer Institute in the United States is now attempting to ascertain by animal experiment whether or not the betel quid is carcinogenic and, if so the particular ingredient at fault. These studies of the peculiarities of cancer in Malaya will continue, had it hoped that it may be possible at some future date to establish a central cancer registry in the Division.

Liver disease.—In Malaya, as in other tropical countries, liver cirrhosis of portal or Laennec's type is a common cause of disability and death. A study of portal cirrhosis, and of the conditions which may lead to portal cirrhosis began in the division of Pathology during the year. For this work histological examinations of liver tissue obtained by needle biopsy are combined with liver function tests. The needle biopsies of cirrhotic livers have revealed a number of unsuspected carcinomata.

Mycoses.—The occurrence of indigenous rhinosporidiosis in Malaya was noted in the 1953 report of the Division of Pathology. Two more infections, contracted in Malaya, were recognised during 1955, one in a Malay, one in a Chinese. The Division also reports a case of chromoblastomycosis. The patient, an Indian male labourer employed on a rubber estate, had a raised warty lesion on a leg, with much inflammation and enlarged, tender inguinal glands. The condition, though known in Indonesia, has apparently not been reported before in Malaya.

78. FILARIASIS, 1955.—The investigations begun in 1953 at the Institute's Filariasis Research Unit at Kuantan, Pahang, continue to provide the background data which is essential for a better understanding of this perplexing disease. Further aid from the Colonial Welfare and Development Fund has made it possible to extend the clinical and parasitological side of the work.

Animal infections.—A surprising turn in the work of the Unit during 1955 was the discovery of sheathed microfilariae, resembling *W. malayi*, in various local animals, including the "Kra" monkey (*Macaca irus*), the banded leaf-monkey (*Presbytis melalophos*), the slow loris (*Nycticebus coucang*), the domestic dog, and the domestic cat. An examination of adult worms recovered from the "Kra" monkey, the dog, and the cat, shows that all belong to the genus *Wuchereria*. Experimental feedings with *Mansonia* spp. revealed differences in the developmental pattern but for all practical purposes the mature larvae were indistinguishable from those of *W. malayi*. The significance of these findings remains to be seen. Do they mean that there is an animal reservoir of *malayi* infection, or are the *malayi* infections of man and the *malayi*-like infections of animals biologically distinct,

despite the morphological similarity of the organisms? Cross-infection experiments may clarify this point. Meanwhile the finding will certainly confuse the interpretation of dissection data in wild-caught mosquitoes.

The first report of *malayi-like* microfilariae in monkeys was made in 1939 by Poynton and Hodgkin. The recent confirmation of this finding and its further developments have aroused much interest, and three visitors from overseas, Lt. Comdr. Jachowski and Capt. Price, U.S. Navy, and Professor J. J. C. Buckley, London School of Hygiene and Tropical Medicine, spent several months in the Kuantan laboratories during the year investigating the filarial infections of animals.

Periodicity.—Observations on the periodicity of the microfilariae of *M. malayi* in East Pahang and Penang reveal differences which are yet to be explained. The nocturnal increase in the microfilaria count in the blood is marked in Penang, but relatively small in East Pahang. It is tempting to relate this anomaly to the different vectors in the two areas, but proof of this assumption is lacking.

Kampong trials.—Pilot control trials, based on mass treatment with Banocide or on house-spraying with Dieldrin, have been completed in three "kampongs". The dosage of Banocide in two kampongs was 4-6mgm/kg. once a month for six months or once a week for six weeks. In a third kampong the houses were sprayed with Dieldrin at 100mg/sq. ft at intervals of six months, a dosage which had given good results in window-trap hut experiments against *Mansonia longipalpis*, the main vector. Neither in the drug-treated nor in the sprayed kampongs was there any reduction in the mosquito infections, a disappointing sequel which is yet to be explained. The chance that there may be an animal reservoir of infection is being examined.

Surveys.—Three unsuspected foci of *W. malayi* infection, two in Kelantan and one in Trengganu, and a focus of *bancrofti* infection sixty-five miles up the Pahang river have been brought to light by the Health Officers of those areas.

Vectors.—Precipitin tests on a small series of blood specimens from *M. longipalpis* and *M. uniformis* caught resting near houses in a highly endemic area showed that nearly all had fed on cattle or buffaloes, a zoophilism which may explain the low total infection rate in these mosquitoes compared with the high microfilaria rate in the human population. A laboratory colony of *M. uniformis* has been successfully established.

World Health Organisation Study Group.—Experts on filariasis from India, Indonesia, the Phillippines, Oceania, France, America, and Great Britain, organised as a Study Group by the World Health Organisation, assembled at the Institute in December, 1955, for discussions on the outstanding problems of the disease. The group reviewed existing knowledge, indicated the present possibilities of treatment and prevention and suggested useful lines of future research. The group visited some of the endemic areas along the lower reaches of the Pahang River, and saw something of the work of the Kuantan Unit. The visit was

a profitable one, and the group will recall with pleasure the welcome of the Pahang Government and the gracious hospitality of H.H. the Sultan of Pahang.

79. LEPTOSPIROSIS, 1955—*Symposium at the Institute.*—Leptospirosis seems to be a more common disease in Malaya than has been suspected hitherto. A collaborative enquiry by the American Unit at the Institute and the British Military Hospital at Kinrara has shown that more than a quarter of a series of 852 unknown fevers in hospital patients were probably leptospiral in origin. A symposium, organised by the American Unit, and attended by representatives of the Services and Medical Departments of the Federation and Singapore, was held at the Institute in June, 1955. Contributions from the Unit, the Institute and Army, embracing the epidemiology, clinical course, pathology, treatment, laboratory diagnosis and prevention of the disease, reviewed the present state of knowledge and brought an opportunity for a very useful exchange of views.

Animal reservoirs.—About 3,000 animals have now been examined and some 80 positive cultures of leptospirae obtained. Many have been identified by Dr. Broom in London; most of them are strains known to infect man in Malaya; a few may be "new". The known occurrence of at least 17 types of leptospirae infecting man or animals in Malaya complicates the problems, but the main patterns of infection are beginning to emerge. Leptospirae have been recovered from numerous species of rats, as well as from musangs, bats, and a cat; and serological evidence of infection has been found in house shrews, garden squirrels, cattle, buffaloes, goats, pigs and dogs.

80. U.S. ARMY MEDICAL RESEARCH UNIT, 1955—*Fevers of unknown origin.*—The studies of the U.S. Unit on the Malayan fevers of unknown origin, begun in 1954, have yielded much valuable data. Working in co-operation with the medical staff of the hospitals, the group has now investigated more than one thousand pyrexias of unknown origin (PUO) at the British Military Hospital, Kinrara and the General Hospital, Kuala Lumpur. Exhaustive laboratory tests established the diagnosis in about two-thirds of the patients; clinically atypical leptospirosis and dengue were surprisingly common. Attempts to recover viruses which might be the cause of the fevers were relatively unsuccessful when adult patients only were studied, and the emphasis has now shifted to the undiagnosed fevers of children. Six viral agents were recovered from the first 250 sick children studied. The identity of these viruses is not yet known.

Dengue.—Dengue continues to occur sporadically in both military and civilian patients and to date about 85 patients with this disease have been investigated. The first non-urban outbreak to be observed occurred in African troops near Mentakab, Pahang, and was limited to one Company stationed on a rubber estate and involved about 15 men. *Aedes albopictus* was incriminated on epidemiological grounds as the vector in this outbreak. Attempts to demonstrate natural infection of this species are now in progress. Serological studies have revealed a close antigenic relationship between the dengue viruses and Japanese

encephalitis virus. The biologic implications of this relationship which involves cross immunity as well as interpretation of serological tests are now under investigations.

Japanese encephalitis.—Previous reports from the Unit have indicated on serological evidence that human infection with JE virus is very common in Malaya. Further data from nearly one thousand sera collected in most of the central and northern states of the Federation confirm this high incidence. In Japan, the virus is probably disseminated by birds; examinations of sera from over 600 non-migratory Malayan birds of 26 species gave little evidence of past infections, and it seems that there may be differences in the ecology of the virus in Malaya and Japan.

Isolation of viral agents from wild-caught mosquitoes.—During the year more than 300,000 mosquitoes were trapped, identified, and inoculated into mice, in attempts to recover transmissible viruses which might be concerned in human disease. Seventeen viral agents, all from *Culex gelidus* and *C. tritaeniorhynchus*, have been recovered; ten have been identified as JE virus but the identity of the rest is not yet known. Detailed and complicated studies will be necessary before the relation, if any, of these unknown viruses to the Malayan fevers of unknown cause can be determined.

81. VENOM OF SEA SNAKES.—According to Tweedie (1953), sea snakes of eight genera and seventeen species occur in Malayan waters. All are venomous and some are known to be deadly. Fortunately they never attack swimmers; but fishermen are very occasionally bitten when they hook the snakes or catch them in their nets.

In the report of the Penang Branch of the Institute, Dr. Savor records observations on the properties of the venom of *Enhydrina*, a supply of venom having been generously placed at his disposal by Dr. H. A. Reid, General Hospital, Penang. The venom, in the form of greyish white scales when fresh and dessicated and as a white powder when lyophilised, was easily soluble in water, and stable in the cold. The lethal dose (C.L.D.) for mice of 17-20 gm was 0.002-0.003 mgm, and for dogs 0.035 mgm/kg. when given subcutaneously. The venom had little effect on the clotting time of normal plasma; nor did it produce significant hæmolysis in washed red cells. From these results it seems that intravascular clotting or hæmolysis would not be a prominent feature of *Enhydrina* bites. A feeble neutralisation of the venom by specific antisera for cobra and viper venoms suggested the possibility of a common antigen; but the weak neutralising activity of the antivenin prepared by the Haffkine Institute, Bombay, and the Queen Saevabha Institute, Bangkok, indicated that these antivenins would be of little use against sea-snake bites. An experimental attempt is being made to produce a specific antivenin from a goat; the preliminary results are promising.

82. LIBRARY.—In January, 1955, the UNESCO Clearing House for Publications in Paris ceased to undertake the distribution of lists of medical literature offered for exchange or free distribution. Lists of duplicates and missing issues were therefore

distributed from the Institute direct to one hundred and ten libraries in various parts of the world. The library issued one thousand three hundred and forty duplicates and received eight hundred and thirty-five single issues and twelve complete volumes in exchange. This exchange of periodicals among the medical libraries is helping to fill the gaps still existing in the library of the Institute.

Fifty-four textbooks were acquired during the year and additional thirty-seven books were presented to the library by various institutions in Malaya. Ten new titles have been added to the list of current periodicals, one of them on an exchange basis. The indexing of textbooks was completed in the early part of the year. A catalogue of periodicals in the library is in preparation.

83. ROUTINE WORK.—From its headquarters laboratories in Kuala Lumpur and branch laboratories in Perak and Penang, the Institute maintains a diagnostic and advisory service for the Federation of Malaya, and prepares some of the biological products used by the medical services. Some 1,502,000 doses of vaccine lymph, and a large volume of typhoid, cholera and rabies vaccines, prepared at the Institute, were issued without charge to the Medical and Health Services of the country; and more than 100,000 routine examinations, bacteriological, biochemical, entomological, histological, serological, etc., were made for the medical services and practitioners of the Federation.

LEPER SETTLEMENTS

84. There are five Leper Settlements in the Federation—Sungei Buloh in Selangor, Pulau Jerejak in Penang, Leper Settlement, Johore Bahru, Leper Camp, Kota Bharu, Kelantan and Leper Hospital, Kuala Trengganu. At the end of the year the number of inmates remaining at these institutions was 3,366.

The general health of the inmates has been good and there was no outbreak of any infectious disease in the Settlements.

85. LEPER SETTLEMENT, SUNGEI BULOH.—Sungei Buloh Settlement is situated in a valley some 16 miles from Kuala Lumpur in attractive surroundings. It should be considered as a community similar to a new village, has a school run on boarding school lines, runs its own law courts and a post office, has a small prison, manages a large agricultural area and looks after its own security.

Married couples who have been admitted to the settlement are allowed to live together and a number of marriages takes place each year amongst the settlement inmates. About 40 to 50 infants are born each year in the settlement and these are removed as soon as possible to a crèche in the uninfected area where they are looked after till they are adopted or taken care of by the social welfare organisations.

Due to a small clique of trouble makers there has been a great deal of deliberate agitation during the year. It has an extremely high nuisance value and wastes time which could be

much better spent looking after sick people. Not only have they succeeded in troubling the authorities but have produced internal strife among the patients. In spite of this the Patients Council does good work and manages to steer an even course of helpful co-operation.

During the year 575 cases were admitted and 430 were discharged as free from infection. The number of patients remaining at the end of the year was 2,429 and the distribution of the population is as follows:

Nationalities	Men	Women	Boys	Girls	Healthy Infants	Total
Malaysians ...	180	48	27	11	1	267
Chinese ...	1,184	519	116	67	17	1,903
Indians ...	198	20	5	3	3	229
Others ...	25	3	2	—	—	30
Total ...	1,587	590	150	81	21	2,429

Out of the total population of 2,429 at the end of the year the Chinese consisting of 1903 represent 78% of the inmates. As a race the Malay does not use the Settlement, the majority only coming for admission when forced by economic pressure. To illustrate this regrettable tendency an old Malay man, a great-grand father was admitted late in the year, his great-grand daughter having been admitted before him. On checking back it was found all the other generations were present in the Settlement as well. To remedy this state of affairs it is considered essential to plan a future programme of leprosy survey throughout the country.

Treatment.—Sulphone continues to be the most satisfactory basis of treatment for all kinds of leprosy and has been found safe and suitable for out-patient treatment which work is being extended. A new system whereby discharged patients are referred to their home clinic for follow up treatment has been instituted and a gratifying number are reporting.

The present position is that only a very few cases progress after treatment has been started, though there may be a slight initial reaction. Resolution continues slowly but steadily until the final disappearance of bacilli from the skin. The problem of successful treatment of leprosy is now focussing on the complications, paralysis, deformity and mutilation, the corrections of which enable the patient to return to normal life and to earn his living.

Hospital.—There were 1,622 admissions to acute hospital for treatment. The main cause of death apart from the leprosy factor was pulmonary tuberculosis which accounted for 12 deaths.

Orthopaedic work begun in 1954 has continued and very successful results are being obtained with tendon transplants. The orthopaedic surgeon is greatly aided in his work by the Physio-therapist who deals with cases both pre and post operatively. This is a new and extremely valuable appointment.

Two main problems confront the Settlement—firstly, shortage of medical staff and, secondly, the gradual silting up with decrepit cases for whom there is no alternative accommodation.

Research.—Owing to routine work research has been reduced to a minimum. This year a series of tests of combinations of sulphone with other drugs is being carried out on a large scale. The final results will not be available for some months.

School.—The Travers School is in flourishing condition with 265 children—this year two boys passed School Certificate and 6 took the London Chamber of Commerce gaining 11 Certificates.

Games, Scouts and Guides continue and the Rotary Club of Kuala Lumpur donated funds which are being used for a gymnasium.

The Trade School did good work making and repairing all kinds of equipment and furniture—servicing vehicles, and training apprentices.

A branch of it re-constructs artificial limbs sent from the United Kingdom. Thirty-eight were fitted during the year as well as numerous repairs.

Fire-fighting.—The Inmate Guards have added fire-fighting to their guard duties and have seven fires controlled to their credit. Their other duties have been done well and without undue officiousness, always difficult in a closed community.

Welfare.—Four hundred and eighty-five inmates are employed in the maintenance of the Settlement either full or part-time and a majority find their own employment as shop-keepers, farmers or carpenters within the Settlement. There are 195 vegetable, 188 poultry, 7 goat and 5 pig farms.

A gang has been working with the Forest Department. It is hoped in the near future to get proper trade training for all.

Re-employment and re-settlement of discharged cases is a problem and the formation of a Leprosy Relief Association of Malaya has been suggested to assist in this, but so far the response has been poor.

A propaganda film named "Valley of Hope" was made by the Malayan Film Unit and has aroused great interest. His Excellency, the High Commissioner, Federation of Malaya, attended the premiere showing when \$2,500 was collected for the Leper Aid Fund.

MENTAL INSTITUTIONS

86. The mentally diseased of the country are treated in two large hospitals, at Tanjong Rambutan in Perak and at Tampoi in Johore. The former has adequate accommodation for some 3,000 beds and the latter for some 1,200 beds. The number of patients in Tanjong Rambutan at the end of the year was 3,607 and at Tampoi there was 1,174. It is considered that both of these hospitals are already too large for easy administration and that a number of regional mental hospitals of about 800 beds each

would better meet the needs of the population. The number of mental cases is steadily increasing and, in the absence of adequate staff and facilities for the training and rehabilitation of the patients in hospital, the admissions continue to exceed the discharges.

There is only one qualified alienist in the Federation, and only a total of seven medical officers looking after mental patients. Frequent appeals have been made to doctors in the service to volunteer for service in the mental hospitals but there has been no response whatever to these appeals and most of the doctors posted to this work are on contract or on temporary employment.

The nursing staff is even more inadequate but steps are being taken to send both male and female nurses overseas for training in mental nursing, and it is hoped that in a year or two the situation will be greatly improved.

A scheme locally for the training of Assistant Nurses in mental diseases has also been started and the first of these student assistant nurses have recently been recruited.

The situation regarding the treatment of mental disease remains a matter of grave concern.

87. CENTRAL MENTAL HOSPITAL, TANJONG RAMBUTAN.—The number of admissions for the year under review was 1,557 as compared with 1,659 for 1954.

The number of patients remaining in hospital on 31st December, 1955, was 3,607 but the maximum number of patients of 3,811 was recorded on 25th September, 1955. This figure was brought down to a less dangerous level by the transfer of 100 patients to Tampoi Mental Hospital in the month of November, 1955.

As indicated in the previous year's report admissions of Chinese is more than three times the comparable ratio of Malays. The reason for that is not a higher liability of Chinese to mental diseases but the fact they are more concentrated in the urban industrial areas, where socially unacceptable behaviour is more readily noticed and dealt with, whereas the large Malay rural population on the East Coast has less strict social standards of what constitute insanity and furthermore is much further remote from and to a Federation Mental Hospital. When a mental hospital is opened in the East Coast it will be found that the number of Malay in-patients to total Malay population will rapidly increase. The incidence in the Indian Population is roughly between the two.

There were 1,434 discharges of whom 814 were graded as recovered, 478 as relieved and 142 as not improved.

The number of deaths was 169 as against 181 in 1954 and the number of abscondings was 6 compared with 9 during the previous year. A patient who is more than 24 hours away from hospital is regarded as absconded. Of these, 5 returned within two or three days. They are usually out-door working patients of chronic type who go for an aimless walk and come back quite willingly.

Deep Insulin and Convulsive Therapy continued to be used with good result. Number of cases treated under:

E.C.T.	...	...	958
D.I.T.	...	...	98

Occupational Therapy was carried out as in previous years. Out of 2,150 males 956 only are "Occupied". Due to shortage of staff a greater number could not be beneficially employed.

Farms.—At the end of the year 332 patients were working in the farms as compared with 304 in 1954. The farms progressed satisfactorily except the pig farm where an outbreak of "Swine Erysipelas" seriously depleted the pig population.

RETURN OF INMATES FOR THE YEAR 1955
SUMMARY OF NATIONALITIES

Nationalities	Remain- ing at end of 31-12-54	Admis- sions	Deaths	Total cases Treated	Remain- ing at end of 31-12-55
Europeans ...	1	10	—	11	—
Eurasians ...	19	7	2	26	15
Chinese ...	2,291	788	119	3,079	2,214
Malays ...	838	388	26	1,226	868
Indians ...	535	358	22	893	500
Others ...	13	6	—	19	10
Total ...	3,697	1,557	169	5,254	3,607

Daily number of inmates for 1955 ... 3,683

Number of beds ... 3,000

The cost of maintaining the Central Mental Hospital in 1955 is indicated below:

Personal Emoluments ...	\$1,467,673
O.C.A.R. ...	1,143,104
O.C.S.E. ...	Nil
Total ...	\$2,610,777

Capital expenditure, pension and leave charges are not included. The net maintenance cost is \$708.87 per annum per patient treated.

88. MENTAL HOSPITAL, TAMPOI.—The number of admissions for the year under review was 768 as against 590 in 1954. There were 500 discharges as against 422 during the previous year. Total number of deaths in 1955 was 56 or 3.23 per cent. of the total population treated as against 42 or 2.95 per cent. in 1954. 1,174 patients remained at the end of the year and the daily average was 1,018.

Four hundred and ninety-eight cases were treated by electric convulsive therapy and 51 cases by modified insulin.

Average of 318 patients were engaged in occupational therapy in various forms. The number could probably be increased beneficially if more staff were available.

MEDICAL STORES AND PHARMACEUTICAL LABORATORY

89. There are two large medical stores in Kuala Lumpur and Penang. The Stores account is operated under a "Below the Line" Account with a ceiling of \$12 million.

The Stores position in the Department is becoming more acute due to inadequate godown accommodation. Demands for drugs and equipment by the hospitals, rural health services, Federation Military Services and the Police have greatly increased, but these were diligently met despite the grave handicaps of staff shortage.

The Finance Section handles the financial work of the Government Medical Stores, Kuala Lumpur and Penang, and also that of Central Dental Stores, Penang, and the Artificial Limb Orthopaedic Appliance Centre. On November 1st, 1955, the method of costing was revised, the actual freight and other charges being costed instead of charging at a fixed rate as hitherto.

Three hundred and seventeen indents were forwarded to the Crown Agents from both the Stores and the total value of these indents was \$3,946,380.

The total value of drugs issued to the laboratories attached to Kuala Lumpur and Penang Stores for manufacturing purposes was \$218,739.92 and the manufactured products were valued at \$332,750.33 making a profit of \$114,010.41. The true saving to Government is greater than that indicated by the above figure as the manufactured products could not be purchased on the open market at the valuation given them. Furthermore, the laboratory is able to prepare to special formulae not commercially available.

The new course of lectures and Practical Dispensing for Male Nurses in Penang commenced in January, 1955. It was found that 25 per cent. of the official time of a Pharmaceutical Chemist was required to teach these students. The second course commenced in July and ended in December, 1955.

A course of lectures was also given to nurses under training at the Regional Training School, Kuala Lumpur.

The Lady Templer Tuberculosis Hospital received the advice of the Superintending Pharmaceutical Chemists in the matter of purchase of equipment and drugs and drew upon both the Kuala Lumpur and Penang Government Medical Stores for supplies.

90. MEDICAL STORES, KUALA LUMPUR.—The three rooms in the main building of the Laboratory have been fitted with a fluorescent lighting system to replace the unsatisfactory bulb type of illumination.

The electrical installation of the Laboratory was rewired at a cost of \$7,000. The production capacity of the Laboratory was seriously curtailed until this work had been completed.

The value of drugs issued to the Laboratory for manufacturing purposes was \$110,840.90 and the manufactured products were valued at \$189,080.37 making a profit of \$78,239.47.

Over 131,340 pounds of galenicals were made as compared with 110,497 pounds in the previous year; 236,712 ampoules and 942,410 injectable doses were also produced during the period.

under review. The production of sulphone and sulphetrone preparations for the treatment of leprosy was 435,000 and 9,036 doses respectively.

The number of indents and items issued to various institutions was 4,595 and 59,069 respectively in 1955 as against 3,648 and 36,062 during the previous year. The number of items issued during the year shows an increase of approximately 65 per cent. over the 1954 figure. Since there has been no corresponding increase in the establishment this could only have been met with extra strain on the staff.

On the advice of the Chief Inspector, Fire Services, the inflammable substance Store at Young Road was fitted with lightning conductors and a protective fence erected around it. A Carbon Dioxide Extinguisher System has been ordered by the Chief Inspector, Fire Services, for installation in this building.

91. MEDICAL STORES, PENANG.—The Government Medical Stores, Penang, has still its godowns in widely scattered areas and, therefore, the efficiency is greatly handicapped.

During the year 9,600 pounds of galenicals and 18,807,000 tablets were manufactured.

The value of ingredients and materials used in manufacturing was \$107,899.02 and the value of the output \$143,669.96 so that the gross saving to Government was \$35,770.84.

Narcotics.—As in previous years the Superintending Pharmaceutical Chemist, Penang, remained the sole importer and wholesale distributor of narcotics.

NARCOTICS STATISTICS

	1955	1954	1953
Consumption of medicinal opium as such	2 kg.	2 kg.	3 kg.
Consumption of opium in Tinctures, etc.	41 ..	32 ..	56 ..
Consumption of Morphine	2 ..	under 2 ..	nearly 3 ..
Consumption of Diamorphine	under 1 ..	under 1 ..	under 1 ..
Consumption of Cocaine	under 2 ..	under 2 ..	nearly 2 ..
Consumption of Pethidine	10 ..	8 ..	8 ..
Consumption of Heptalgin	under 1 ..	under 1 ..	under 1 ..
Consumption of Physeptone	355 gms.	312 gms.	272 gms.

In accordance with the Government's decision not to import Diamorphine no Diamorphine or its preparations were supplied to any Government hospital during the year. Its use will be discontinued in due course when present stocks are exhausted.

ORTHOPAEDIC APPLIANCE CENTRE

92. The production of artificial limbs and other appliances was carried out at the Orthopaedic Appliance Centre, Kuala Lumpur, which is under the direct supervision of a British Superintendent who is a skilled appliance maker.

During the year 24 artificial legs with foot, 30 peg legs, 3 Symes legs, 6 artificial arms and various other orthopaedic appliances were manufactured. In addition repairs to 78 appliances were also carried out. The machinery in the Centre is about eight years old and is in need of replacement.

REPORT OF THE MEDICAL COUNCIL

The Medical Council consists of:

- (a) the Director of Medical Services, Federation of Malaya;
- (b) the Director of Medical Services, Colony of Singapore;
- (c) one medical officer in the public service of the Federation to be appointed by the High Commissioner;
- (d) one medical officer in the public service of the Colony to be nominated by the High Commissioner;
- (e) three registered medical practitioners to be nominated by the Council of the University of Malaya and appointed by the High Commissioner;
- (f) seven registered medical practitioners resident in the Federation to be elected by the registered medical practitioners resident in the Federation and five registered medical practitioners resident in the Colony to be elected by the registered medical practitioners resident in the Colony.

During the year three meetings of the Medical Council were held on 8th January, 1955, 2nd July, 1955 and 4th November, 1955.

2. The Medical Registration Regulations drafted by the Medical Council were considered and approved by the Federal Executive Council at its meeting held on 8th March, 1955. These Regulations were published in the Legislative Supplement (Subsidiary Legislation) to Federation of Malaya Government *Gazette* of 12th May, 1955.

3. An Election was held in August. Four registered medical practitioners resident in the Federation of Malaya and four resident in Singapore were elected Members of the Council to fill vacancies caused by retirement.

4. Dr. R. E. Anderson, President of the Federation of Malaya Medical Council, was nominated by the Medical Councils of Singapore and the Federation as their representative on a Board of Studies to consider the Institution of a Degree in Pharmacy at the University of Malaya.

5. The Council considered the case of a registered medical practitioner who was convicted of a heinous offence at the Malacca Assizes, and decided to remove his name from the register.

6. An inquiry was held by Council into a complaint of alleged infamous conduct in a professional respect against a registered medical practitioner. After hearing the evidence of the complainant, Council decided that the medical practitioner concerned was not guilty of infamous conduct in a professional respect, without calling upon him to make his defence.

7. Council was asked to give its reaction to a tentative proposal being considered by the Federation Government which, if carried out, would have entailed the payment of an annual

practising fee of \$25 a year by medical practitioners engaged in private practice. In view of the fact that private medical practitioners at present pay an annual fee of \$100 under the Registration and Licensing of Businesses Ordinance, 1953, there was considerable opposition from the Medical Council to the suggestion. After consultation with the Singapore Government, the Federation Government decided not to proceed further in the matter.

8. At the beginning of the year there were 709 medical practitioners on the register. 85 were registered during the year, 2 were transferred from Singapore and 3 were restored to the register bringing the total to 799. But during the year 7 registered medical practitioners moved to Singapore, and 7 who had passed away or left the country had their names removed from the register so that the number on the register with Federation addresses at the end of 1955 was 785. Of the 85 registered during the year were 3 medical practitioners employed by missionary bodies for work in new villages and registered under Section 9 (1) (c) of the Ordinance subject to certain conditions, 1 Radiologist with an Italian Degree registered under the same section for work in a Government Hospital, and 2 members of the U. S. Army Medical Research Unit attached to the Institute for Medical Research, Kuala Lumpur, registered under Section 9 (2). In addition there were on the register at the end of the year 27 medical graduates provisionally registered. They were engaged in employment in a resident medical capacity in the five approved hospitals in Penang, Ipoh, Kuala Lumpur, Malacca and Johore Bahru, and had to complete one year's satisfactory service as house doctors, i.e., 6 months in medicine and 6 months in surgery, before they could be granted full registration.

9. The distribution of registered medical practitioners by race and by State/Settlement is shown on the following page.

REGISTERED MEDICAL PRACTITIONERS IN THE FEDERATION OF MALAYA

(AS ON 31ST DECEMBER, 1955)

State/Settlement	GOVERNMENT					PRIVATE						
	Europeans	Malays	Chinese	Indians and Ceylonese	Eurasians	Total	Europeans	Malays	Chinese	Indians and Ceylonese	Eurasians	Total
Penang ..	12	3	13	15	1	44	20	2	53	9	4	88
Malacca ..	13	1	2	6	—	22	3	—	8	6	3	20
Perak ..	24	1	7	22	1	55	19	3	43	21	3	89
Selangor ..	52	6	12	19	6	95	34	2	36	33	7	112
Negri Sembilan ..	11	2	5	5	—	23	8	1	4	8	1	22
Pahang ..	4	1	1	12	—	18	4	—	2	4	—	10
Johore ..	15	1	11	28	1	56	10	3	24	7	—	44
Kelantan ..	10	—	—	—	—	10	3	2	3	1	—	9
Trengganu ..	6	2	—	4	—	12	1	—	—	3	—	4
Kedah ..	4	4	3	20	—	31	5	—	3	8	—	16
Perlis ..	—	—	—	3	—	3	—	1	—	1	—	2
Total ..	151	21	54	134	9	369	107	14	176	101	18	416
												785

APPENDIX "B"

REPORT OF THE DENTAL BOARD

The constitution of the Dental Board is as follows:

- (a) the Director of Medical Services, Federation of Malaya, ex-officio (*Chairman*);
- (b) the Director of Medical Services, Singapore, ex-officio;
- (c) a Registered Dentist or a Medical Practitioner nominated by the Vice-Chancellor of the University of Malaya, and appointed by the High Commissioner;
- (d) the Professor of Dental Surgery, University of Malaya, Singapore;
- (e) the Chief Dental Officer, Federation of Malaya, ex-officio;
- (f) the Chief Dental Officer, Singapore, ex-officio;
- (g) two Dental Surgeons practising in the Federation of Malaya nominated by the Malayan Dental Association, to be appointed by the High Commissioner;
- (h) a Dental Surgeon practising in the Colony of Singapore nominated by the Malayan Dental Association, to be appointed by the High Commissioner;
- (i) a Registered Dentist in Division II nominated by the Central Malaya Chinese Dentists' Association, and appointed by the High Commissioner.

Membership.—One change took place. Mr. C. Mummery, Secretary to Board, retired from service, and his place was taken by Inche A. Karim.

Board Activities.—The Board met twice during 1955, and the members can be congratulated as there was a full attendance each time. The only absent were those out of the country, but their deputies attended either as full members or observers who were allowed by the Board to take part in the discussions but without voting powers.

The Board dealt with a variety of subjects, ranging from wording of dental surgeries to removing names from the Register.

One inquiry was held which was conducted by our legal adviser and resulted in the removal from the Register of one Registered Dentist who was convicted for covering.

Our legal adviser was consulted several times, and his opinion was of great value to the Board.

It was becoming apparent for sometime that the Dental Ordinance required amendments and the Board appointed a sub-committee to deal with it. Later the Colony Dental Board joined in this, and it has now become a combined sub-committee for both Boards. It is in active deliberation now.

Inspection of Dental Premises.—This has been the subject of a special report and it now only remains to record that the Board has now vigorously pursued a policy to see that these Inspections as required by the Ordinance are carried out, using Government Dental Officers as Inspectors.

Government Dental Officers were instructed to help and advise Registered Dentists on the maintenance of cleanliness in their premises.

DISTRIBUTION OF DENTISTS BY DIVISION, RACE AND
EMPLOYMENT

DIVISION I

No. on register as at 1-1-55	...	...	92
No. registered during 1955	...	...	3
No. removed during 1955	...	...	4
Total on 31-12-55			91

		In Government employ	In Private Practice
Europeans	...	7	3
Malays	...	9	—
Chinese	...	32	29
Indians	...	10	—
Others	...	1	—

DIVISION II

No. on register as at 1-1-55	...	...	521
No. registered during 1955	...	...	Nil
No. re-registered during 1955	...	...	2
No. removed during 1955	...	...	20
Total on 31-12-55			503

		In Government employ	In Private Practice
Malays	...	—	1
Chinese	...	1	498
Indians	...	—	1
Others	...	—	2

NUMBER REGISTERED BY STATES/SETTLEMENTS

		Division I	Division II
Perak	...	14	87
Selangor	...	20	93
Negri Sembilan	...	7	29
Pahang	...	3	22
Kedah	...	4	35
Kelantan	...	5	25
Trengganu	...	3	13
Penang and Province Wellesley	...	15	63
Malacca	...	5	29
Johore	...	13	99
Perlis	...	1	8
Singapore	...	1*	—

* Registered in the Federation of Malaya, but practising in Singapore.

REPORT OF THE PHARMACY BOARD

The constitution of the Board is as follows:

- (a) the Director of Medical Services, Federation of Malaya, ex-officio (*Chairman*);
- (b) the Director of Medical Services, Singapore, ex-officio;
- (c) one person nominated by the Vice-Chancellor of the University of Malaya, and appointed by the High Commissioner;
- (d) one pharmacist in the public service of the Federation to be appointed by the High Commissioner;
- (e) one pharmacist in the public service of the Colony to be appointed by the High Commissioner;
- (f) one representative from the Department of Chemistry, nominated by the Director of Chemistry and appointed by the High Commissioner;
- (g) two persons, not in the public service of the Federation or of the Colony of Singapore, nominated by the Association or Associations representing pharmacists in private practice and appointed by the High Commissioner.

The term of office of the following members expired on 13th March, 1955:

Mr. F. J. Smith
 Mr. Chew Boon Ee
 Mr. A. F. Caldwell
 Mr. D. E. Lovett

and Messers A. F. Caldwell and D. E. Lovett were re-appointed for a further period of three years. Messers F. J. Smith and Chew Boon Ee were replaced by Messers Ng Ek Khiam and Lee Hock Loy, respectively.

Three meetings of the Board were held during the year under review.

At the commencement of the year there were 58 pharmacists on the register and four persons were registered as Pharmacists during the year bringing the total to 62 as on 31st December, 1955.

There were eight registered Bodies Corporate at the beginning of the year and one new Body Corporate was registered during the year bringing the total to nine at the end of the year.

As a result of the amendment of Section 6 (2) of the Registration of Pharmacists Ordinance in 1954 which permitted registration of certain under-qualified persons, 276 applications were received for registration under Section 6 (2). A sub-committee was appointed to consider these applications, interview the applicants where necessary and submit its recommendations to the Board. After full consideration of the sub-committee's recommendations, the Board decided to select three applicants for registration as the rest failed to comply with the requirements of the Ordinance.

Nine persons appealed to the High Commissioner in Council against the decision of the Board not to register them as

Pharmacists and their appeals were rejected by the High Commissioner in Council.

The Registration of Pharmacists Ordinance was amended during the year whereby the Director of Medical Services, Federation of Malaya, replaced the Member for Health as President of the Board.

A sub-committee consisting of Messers A. F. Caldwell, D. F. Lovett and C. R. P. Strachan was appointed to draw up regulations governing registration of persons who hold qualifications not hitherto recognised as registrable by the Board. The sub-committee's report has not yet been received.

The distribution of registered pharmacists by race and State/Settlement is shown below:

Number of registered Pharmacists on the register as on 1-1-55	58
Number registered during 1955	4
	<hr/>
	62

Number of registered Pharmacists by races:

Chinese	41
Europeans	12
Indians	5
Ceylonese	4
	<hr/>
	62

Number of registered Pharmacists in Government Service

Number of registered Pharmacists in private Firms	42
Number admitted under Section 6 (2)	16

Number of registered Pharmacists in each State/Settlement:

Perak	11
Selangor	19
Negri Sembilan	1
Penang	22
Malacca	2
Johore	5
Kelantan	1
Kedah	1
	<hr/>
	62

Number registered as Bodies Corporate 9

Number registered as Bodies Corporate by races:

Europeans	2
Chinese	6
Indian	1
	<hr/>
	9

APPENDIX "D"

REPORT OF THE NURSING BOARD

The constitution of the Nursing Board is as follows:

- (a) four ex-officio members who shall be—
 - (i) the Director of Medical Services, Federation of Malaya;
 - (ii) a medical officer in the Government service, nominated by the Director of Medical Services;
 - (iii) the Principal Matron, Federation of Malaya;
 - (iv) a Sister Tutor nominated by the Principal Matron;
- (b) three persons not connected with the nursing profession to be appointed by the High Commissioner; and
- (c) eleven registered nurses to be appointed by the High Commissioner, one of whom shall be a registered male nurse.

The Nursing Board held no meetings during 1955.

Legislation.—The Nurses Registration (Amendment) Ordinance, 1955, was passed by the Legislative Council on 1st December, 1955, but the draft Regulations have not yet been promulgated.

Student Nurses' Examinations.—The Preliminary Examination was held twice and the Final Examination three times during the year and the results were as follows:

				Preliminary		Final
April	...	...	...	—	...	30
May	...	...	...	64	...	—
July	...	...	...	—	...	37
December	...	...	...	70	...	31
				-----		-----
				134	...	98
				-----		-----

Entrance Examination.—This continued as previously until July, since then no more Entrance Examinations have been held, as it is hoped to recruit girls with the Senior Cambridge Certificate only. Two hundred and sixty-eight students sat for the test; one hundred and thirty-six passed and were accepted for Student Nurse Training.

Number of Nurses in Training.—On 31st December, 1955, there were three hundred and seventy-nine nurses in training of whom ninety-four were males.

Registration of Nurses—

Total number as shown on register on 31-12-55	1,274
Number left to date (resignations, etc.)	... 86

Number remaining on register as on 31-12-55	1,188

Distribution by States/Settlements—

Malacca	...	...	...	...	80
Kelantan	...	...	...	...	16
Johore	...	...	...	...	130
Pahang	...	...	...	...	57
Negri Sembilan	...	...	...	...	96
Selangor	...	...	...	...	222
Penang	...	...	...	...	217
Perak	...	...	...	...	269
Kedah	...	...	...	...	85
Perlis	...	...	...	...	7
Trengganu	...	...	...	...	9

1,188

In Government Service	...	...	...	1,050
In Missionary Bodies	...	...	...	46
In Municipalities	...	...	...	15
In Private Practice	...	...	...	56
Attached to Lady Templer Hospital	...	...	...	21

1,188

Distribution by races—

Europeans	...	...	...	178
Malays	...	...	...	88
Indians	...	...	...	163
Chinese	...	...	...	658
Eurasians	...	...	...	99
Others	...	...	...	2

1,188

Numbers locally trained	...	...	...	978
" trained outside Malaya	...	...	...	210

1,188

APPENDIX "E"

REPORT OF THE MALARIA ADVISORY BOARD

The constitution of the Board is as follows:

- | | |
|--|--|
| Six permanent members
(Medical) | The Director of Medical Services (<i>Chairman</i>);
The Director, Institute for Medical Research (<i>Vice-Chairman</i>);
The Senior Malaria Research Officer;
The Entomologist, Institute for Medical Research;
The Senior Medical Officer, Military Forces;
The Principal Medical Officer, Royal Air Force |
| Five permanent members representing Government Departments | Representing—
Railways,
Public Works,
Drainage and Irrigation,
Education,
Agriculture. |

MEMBERS NOMINATED BY THE MINISTER FOR HEALTH AND SOCIAL WELFARE

- | | |
|---|--|
| Five Medical Officers in the Public Service appointed by name | Government Medical Officers with experience of anti-malarial work |
| Five Medical Practitioners not in the Public Service | These are all Estate Medical Practitioners with anti-malarial experience |
| Two representatives of Planting Interests nominated after consultation with the United Planting Association of Malaya | One Asian and one European Planters' Representative |

One member nominated to represent labour interests.

Four other nominated members (one is an Administrative Officer and three are medical men).

1.—MEMBERS OF THE BOARD

The membership of the Board remained substantially the same as in 1954. Mr. R. H. Wharton acted as Secretary whilst Mr. J. A. Reid was away on long leave, and similarly Dr. J. F. B. Edeson acted for Dr. T. Wilson. There were no meetings during the year.

2.—REVIEW OF LOCAL MALARIA

Malaria admissions to hospital again showed a decline, the total being 8,577, or over one thousand less than in 1954. The figures refer only to microscopically diagnosed malaria admissions to Government and Estate hospitals, which are the only reliable figures. Such admissions to hospital serve more as an index of the variations in the incidence of malaria from year to year than as a record of the total cases occurring, which must be considerably greater. Even as an index of the varying incidence of malaria the figures must be interpreted with caution. Persons who enter hospital with malaria are mostly from village, peri-urban and estate populations or Government employees. The true rural population, or kampong dwellers, who make up such a large fraction of the population, seldom enter hospital. The result is that we are not justified in assuming that the very marked decline in malaria admissions to hospital since 1947 applies to the country as a whole. In fact there is reason to think that in many kampongs where malaria control has not yet been applied, the incidence of malaria has not declined. The fall in hospital admissions must be due in large part to the effect of modern drugs and insecticides which have benefited mainly the estate, village and peri-urban populations.

3.—DDT HOUSE SPRAYING

Apart from what is done by estates and individuals of which there is no record, DDT house spraying continues to be the responsibility of State and Settlement Medical Departments. These do as much as they can in new villages and kampongs with the money and staff available.

The returns for the year show that about 612,000 persons were living in sprayed houses (581,625 at mid-year, and 642,869 at the end of the year). Formerly only DDT was used, except in Pahang which used BHC, but during the year a number of States tried dieldrin as well as DDT; Pahang continued to use BHC.

TABLE 1

IN-PATIENTS

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954

INTERMEDIATE LIST OF 150 CAUSES FOR TABULATION OF MORBIDITY AND MORTALITY—(See footnote below)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
I.—INFECTIVE AND PARA- SITIC DISEASES							
A 1	001-008	Tuberculosis of respiratory system ..	2,974	6,572	9,546	862	2,922
A 2	010	Tuberculosis of meninges and central nervous system ..	12	175	187	105	13
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands ..	9	49	58	10	4
A 4	012-013	Tuberculosis of bones and joints ..	151	465	616	14	137
A 5	(a) 014	Tuberculosis of skin and subcutaneous cellular tissue ..	..	14	14	1	2
	(b) 015	Tuberculosis of lymphatic system ..	19	151	170	2	18
	(c) 016	Tuberculosis of genito-urinary system ..	5	37	42	4	4
	(d) 017	Tuberculosis of adrenal glands ..	1	18	19	1	2
	(e) 018	Tuberculosis of other organs ..	2	26	28	1	2
	(f) 019	Disseminated tuberculosis ..	..	8	8	5	..
A 6	020	Congenital syphilis ..	3	43	46	12	1
A 7	(a) 021.0-021.1	Primary syphilis ..	3	31	34	..	..
	(b) 021.2	Secondary syphilis ..	12	132	144	1	8
	(c) 021.3	Early syphilis, relapse following treatment ..	..	3	3	..	..
	(d) 021.4	Early syphilis (unspecified stage) ..	..	11	11	..	..
A 8	024	Tabes dorsalis ..	4	25	29	..	1
A 9	025	General paralysis of insane ..	58	63	121	41	50
A 10	(a) 022	Aneurysm of aorta ..	..	22	22	6	..
	(b) 023	Other cardiovascular syphilis ..	1	10	11	..	..
	(c) 026	Other syphilis of central nervous system ..	3	32	35	..	2
	(d) 027	Tertiary syphilis ..	12	112	124	3	10
	(e) 028	Latent syphilis ..	1	15	16	1	..
	(f) 029	Syphilis unqualified ..	3	60	63	3	..
A 11	(a) 030	Acute or unspecified gonorrhoea ..	4	184	188	..	2
	(b) 031	Chronic gonococcal infection of genito-urinary system ..	..	41	41	..	1
	(c) 032	Gonococcal infection of joint ..	1	45	46	..	5
	(d) 033	Gonococcal infection of eye ..	..	39	39	..	1
	(e) 034-035	Gonococcal infection of other sites ..	..	10	10	..	..
A 12	040	Typhoid fever ..	31	1,042	1,073	54	66
A 13	(a) 041	Paratyphoid fever A, B or C ..	1	34	35	2	2
	(b) 042	Other salmonella infections ..	..	3	3	..	..
A 14	043	Cholera ..	..	..	..	..	..
A 15	044	Brucellosis (undulant fever) ..	..	1	1	..	..
A 16	(a) 045	Bacillary dysentery ..	1	199	200	14	5
	(b) 046	Amoebiasis ..	52	1,433	1,485	29	43
	(c) 047-048	Other protozoal and unspecified forms of dysentery ..	14	325	339	16	17
A 17	050	Scarlet fever ..	..	1	1	..	..
A 18	051	Streptococcal sore throat ..	..	1	1	..	..
A 19	052	Erysipelas ..	1	10	11	..	..
A 20	053	Septicaemia and pyaemia ..	1	72	73	40	..
A 21	055	Diphtheria ..	72	1,550	1,622	284	43
A 22	056	Whooping Cough ..	4	76	80	2	3
A 23	057	Meningococcal infections ..	..	10	10	4	1
A 24	058	Plague ..	..	..	..	..	..
A 25	060	Leprosy ..	3,327	841	4,168	52	3,379
A 26	(a) 061	Tetanus of the new-born ..	2	191	193	135	4
	(b) —	Tetanus, other forms ..	10	247	257	93	5
A 27	062	Anthrax ..	..	..	..	..	..
A 28	080	Acute Poliomyelitis ..	6	33	39	5	..
A 29	082	Acute infectious encephalitis ..	..	12	12	7	..
<i>Carried forward</i> ..			6,800	14,474	21,274	1,809	6,753

The headings are taken from the Intermediate List of 150 Causes for Tabulation of Morbidity and Mortality as published in the "Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death" (Sixth Revision, 1948).

Reference should be made to the Detailed List of the Diseases published on pages 45 to 321 of the above Manual whenever there is any doubt about the entry in the list.

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	6,800	14,474	21,274	1,809	6,753
		I.—INFECTIVE AND PARA- SITIC DISEASES—(cont.)					
A 30	081	} Late effects of acute poliomyelitis and acute infectious encephalitis..					
	083		8	75	83	..	13
A 31	084	Smallpox					
A 32	085	Measles	6	289	295	1	6
A 33	091	Yellow fever					
A 34	092	Infectious hepatitis	9	607	616	22	23
A 35	094	Rabies					
A 36	(a) 100	Louse-borne epidemic typhus					
	(b) 101	Flea-borne endemic typhus (murine)	1	57	58	..	3
	(c) 104	Tick-borne epidemic typhus					
	(d) 105	Mite-borne typhus	3	145	148	1	3
	(e) 102-103	} Other and unspecified typhus					
	106-108		58	58	2	1
A 37	(a) 110	Vivax malaria (benign tertian)	19	1,554	1,573	6	23
	(b) 111	Malariae malaria (quartan) .. .. .	..	25	25	..	1
	(c) 112	Falciparum malaria (malignant tertian)	43	3,882	3,925	54	62
	(d) 114	Mixed malaria infections	1	143	144	4	2
	(e) 115	Blackwater fever .. .. .	..	1	1	..	..
	(f) 113	} Other and unspecified forms of malaria					
	116-117		..	75	3,507	3,582	38	42
A 38	(a) 123.0	Schistosomiasis vesical (<i>S. haematobium</i>)					
	(b) 123.1	Schistosomiasis intestinal (<i>S. Mansoni</i>)					
	(c) 123.2	Schistosomiasis Pulmonary (<i>S. japonicum</i>)					
	(d) 123.3	Other and unspecified Schistosomiasis					
A 39	125	Hydatid disease .. .. .	..	17	17	..	1
A 40	(a) 127	Onchocerciasis					
	(b) —	Loiasis					
	(c) —	Filariasis (<i>bancrofti</i>)	1	30	31	..	2
	(d) —	Other filariasis	7	457	464	2	6
A 41	129	Ankylostomiasis	23	1,028	1,051	..	23
A 42	(a) 126	Tape worm (infestation) and other cestode infestation	2	18	20	..	..
	(b) 130.0	Ascariasis	46	2,621	2,667	5	31
	(c) 130.3	Guinea worm (<i>dracunculosis</i>) .. .. .	..	3	3	..	..
	(d) 124	Other trematode infestation .. .. .	..	1	1	..	..
	(e) 128	Trichiniasis .. .. .	..	2	2	..	..
	(f) 130.1-130.2	Other diseases due to helminths	6	206	212	5	2
A 43	(a) 036	Chancroid .. .. .	..	15	15	..	..
	(b) 037	Lymphogranuloma venereum .. .. .	..	15	15	..	1
	(c) 038	Granuloma inguinale, venereal	1	7	8	..	..
	(d) 039	Other and unspecified venereal diseases .. .. .	..	6	6	..	..
	(e) 049	Food poisoning infection and intoxication .. .. .	..	138	138	..	..
	(f) 059	Tularaemia .. .. .	..	7	7	..	..
	(g) 063	Gas gangrene .. .. .	..	1	1	1	..
	(h) 064	(a) Glanders .. .. .	..	1	1	..	..
		(b) Melioidosis .. .. .	..	1	1	..	..
		(c) Other bacterial diseases .. .. .	..	1	1	..	..
	(i) 070	Vincent's infection	3	12	15	1	..
	(j) 071	Relapsing fever .. .. .	..	..	..	..	..
	(k) 072	Leptospirosis icterohaemorrhagica (Weil's disease) .. .. .	..	34	34	7	..
	(l) 073	Yaws	18	361	379	..	13
	(m) 086	Rubella .. .. .	..	..	..	..	..
	(n) 087	Chickenpox	27	796	823	..	12
	(o) 088	Herpes Zoster	7	215	222	..	9
	(p) 089	Mumps	8	109	117	..	1
	(q) 090	Dengue	1	82	83	..	1
		<i>Carried forward</i> ..	7,115	31,000	38,115	1,958	7,034

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	7,115	31,000	38,115	1,958	7,034
		I.—INFECTIVE AND PARA- SITIC DISEASES—(cont.)					
	(r) 093	Glandular fever .. .. .	..	27	27	1	..
	(s) 095	Trachoma .. .. .	..	56	56	..	2
	(t) 096.7	Sandfly fever .. .. .	..	..	..	..	..
	(u) 120	Leishmaniasis .. .. .	..	1	1	..	..
	(v) 121	(a) Trypanosomiasis gambiense ..	..	..	..	..	..
		(b) Trypanosomiasis rhodesiense ..	..	..	..	..	..
		(c) Other and unspecified trypano- somiasis .. .. .	..	..	..	..	..
	(w) 131	Dermatophytosis	5	250	255	3	12
	(x) 135	Scabies	10	186	196	..	..
	(y) 054, 074						
	096.1-096.6						
	096.8, 096.9	All other diseases classified as infec- tive and parasitic .. .. .	..	152	152	..	9
	122						
	132-134						
	136-138						
		II.—NEOPLASMS					
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx	17	202	219	55	18
A 45	150	Malignant neoplasm of oesophagus ..	7	164	171	45	10
A 46	151	Malignant neoplasm of stomach ..	12	276	288	97	15
A 47	(a) 152	Malignant neoplasm of small intes- tine, including duodenum ..	..	13	13	4	..
	(b) 153	Malignant neoplasm of large intes- tine, except rectum	1	66	67	23	3
A 48	154	Malignant neoplasm of rectum ..	10	73	83	20	4
A 49	161	Malignant neoplasm of larynx ..	4	23	27	4	2
A 50	162-163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	8	127	135	46	7
A 51	170	Malignant neoplasm of breast ..	9	84	93	14	4
A 52	171	Malignant neoplasm of cervix uteri ..	14	287	301	26	15
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus ..	..	47	47	10	7
A 54	177	Malignant neoplasm of prostate ..	..	22	22	..	..
A 55	190-191	Malignant neoplasm of skin ..	15	226	241	19	19
A 56	196-197	Malignant neoplasm of bone and connective tissue .. .. .	..	52	52	7	4
A 57	(a) 155-156	Malignant neoplasm of liver ..	7	252	259	111	12
	(b) 157	Malignant neoplasm of pancreas ..	..	19	19	9	..
	(c) 158	Malignant neoplasm of peritoneum ..	..	6	6	4	..
	(d) 159	Malignant neoplasm of unspecified digestive organs	1	8	9	2	1
	(e) 175-176	Malignant neoplasm of other and unspecified female genital organs ..	2	35	37	10	2
	(f) 178-179	Malignant neoplasm of other and unspecified male genital organs ..	3	30	33	3	5
	(g) 180-181	Malignant neoplasm of kidney, bladder and other urinary organs ..	2	31	33	9	1
	(h) 160						
	164-165						
	192-195	Malignant neoplasm of all other and unspecified sites	5	254	259	55	12
	198-199						
A 58	204	Leukaemia and Aleukaemia ..	1	76	77	33	3
A 59	(a) 200	Lymphosarcoma and reticulosar- coma	1	8	9	5	1
	(b) 201	Hodgkin's disease	1	25	26	3	2
	(c) 202-203	Other neoplasm of lymphatic and haematopoietic system .. .. .	..	13	13	2	1
	(d) 205	Mycosis fungoides .. .. .	..	46	46	..	1
A 60	(a) 210-211	Benign neoplasm of buccal cavity, pharynx and digestive system ..	1	49	50	3	3
		<i>Carried forward</i> ..	7,251	34,186	41,437	2,581	7,209

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	7,251	34,186	41,437	2,581	7,209
		II.—NEOPLASMS—(cont.)					
(b)	217	Benign neoplasm of other female genital organs	3	57	60	..	2
(c)	218	Benign neoplasm of other male genital organs .. .. .	..	9	9	..	..
(d)	212-216 } 219-229 }	Benign neoplasm of other and un- specified organs and tissue ..	10	411	421	6	13
(e)	230	Neoplasm of unspecified nature of digestive organs	1	20	21	2	2
(f)	233-235	Neoplasm of unspecified nature of other female genital organs ..	..	39	39	..	2
(g)	231-232 } 236-239 }	Neoplasm of unspecified nature of other unspecified organs	6	225	231	14	6
		III.—ALLERGIC ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES AND IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS					
A 61	250-251	Nontoxic goitre	5	84	89	1	5
A 62	252	Thyrotoxicosis with or without goitre	7	266	273	11	15
A 63	260	Diabetes mellitus	61	1,159	1,220	44	71
A 64	(a) 280	Beri Beri	39	510	549	43	21
	(b) 281	Pellagra .. .. .	..	3	3	..	..
	(c) 282	Scurvy	2	4	6	..	1
	(d) 283-284	Rickets .. .. .	..	12	12	2	2
	(e) 285	Osteomalacia .. .. .	..	1	1	..	..
	(f) 286.0	(a) Sprue	1	16	17	1	1
	286.5	(b) Malnutrition	52	673	725	118	37
		Kwashiorkor .. .. .	..	6	6	1	2
	286.1-286.4 } 286.6 }	(c) Other deficiency states	5	248	253	13	11
A 65	(a) 290	Pernicious and other hyperchromic anaemias	3	82	85	9	5
	(b) 291	Iron deficiency anaemias (hypo- chromic)	35	755	790	30	28
	(c) 292-293	Other specified and unspecified anaemias	176	2,077	2,253	138	171
A 66	(a) 241	Asthma	95	3,206	3,301	53	89
	(b) 240	Angioneurotic oedema, urticaria and other allergic disorders	18	402	420	..	6
	(c) 253	Myxoedema and cretinism .. ..	..	11	11	..	2
	(d) 254	Other diseases of thyroid gland ..	1	78	79	3	1
	(e) 270	Disorders of pancreatic internal secretion other than diabetes mellitus .. .. .	..	6	6	..	..
	(f) 271	Diseases of parathyroid gland .. ..	..	1	1	..	..
	(g) 272	Diseases of pituitary gland .. ..	..	7	7	..	..
	(h) 273	Diseases of thymus gland .. .. .	..	2	2	..	..
	(i) 274	Diseases of adrenal gland .. .. .	..	3	3	1	..
	(j) 275-277	Other diseases of endocrine glands ..	..	4	4	..	..
	(k) 288	Gout	2	28	30	..	3
	(l) 287, 289	Other metabolic diseases .. .. .	..	21	21	2	..
	(m) 294	Polycythemia .. .. .	..	8	8	..	..
	(n) 295	Haemophilia .. .. .	..	..	..	..	..
	(o) 296	Purpura and other haemorrhagic conditions	2	48	50	10	1
	(p) 297	Agranulocytosis .. .. .	..	1	1	..	..
	(q) 298	Diseases of spleen	1	32	33	2	1
	(r) 299	Other diseases of blood and blood- forming organs	3	61	64	4	3
		<i>Carried forward</i> ..	7,779	44,762	52,541	3,089	7,709

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55						
		<i>Brought forward</i> ..	7,779	44,762	52,541	3,089	7,709						
		V.—MENTAL, PSYCHONEU- ROTIC AND PERSONALITY DISORDERS											
A 67	(a) 300	Schizophrenic disorders (dementia praecox)	2,185	1,287	3,472	63	2,396						
	(b) 301	Maniac-depressive reaction	417	392	809	13	442						
	(c) 302	Involuntional melancholia	93	90	183	3	104						
	(d) 303	Paranoia and paranoid states	8	15	23	..	7						
	(e) 304	Senile psychoses	491	324	815	92	466						
	(f) 305-309	Other and unspecified psychoses	686	1,018	1,704	13	774						
A 68	(a) 311	Hysterical reaction	5	241	246	..	13						
	(b) 314	Neurotic-depressive reaction	3	63	66	..	1						
	(c) 322	Alcoholism	2	204	206	..	2						
	(d) 323	Other drug addiction	9	235	244	4	7						
	(e) 310												
	312-313	} Other psychoneuroses and disorders of personality	510	368	878	1	500						
	315-321												
	324												
	326												
A 69	325	Mental deficiency	158	525	683	9	115						
		VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS											
A 70	(a) 331	Cerebral haemorrhage	5	315	320	226	7						
	(b) 332	Cerebral embolism and thrombosis	30	269	299	92	36						
	(c) 330	} Other vascular lesions affecting central nervous system	10	123	133	16	23						
	333-334												
A 71	340	Non-meningococcal meningitis	6	295	301	125	6						
A 72	345	Multiple sclerosis .. .. .	..	3	3	..	..				
A 73	353	Epilepsy	29	509	538	18	28						
A 74	(a) 370	Conjunctivitis and ophthalmia	28	1,998	2,026	..	33						
	(b) 371-379	Other inflammatory diseases of eye	14	666	680	..	27						
A 75	385	Cataract	109	989	1,098	..	61						
A 76	387	Glaucoma	2	123	125	..	5						
A 77	(a) 390	Otitis externa	3	179	182	..	2						
	(b) 391-393	Otitis media and mastoiditis	15	551	566	12	7						
	(c) 394	Other inflammatory diseases of ear	1	39	40	..	..				
A 78	(a) 380-384	} All other diseases and conditions of eye	129	1,264	1,393	2	101						
	386, 388												
	389												
	(b) 342							Intracranial and intraspinal abscess	1	23	24	13	1
	(c) 343							Encephalitis, myelitis and encephalo- myelitis	2	112	114	50	6
	(d) 350							Paralysis agitans	8	42	50	5	16
	(e) 352							Other cerebral paralysis	89	395	484	23	90
	(f) 356							Motor neurone disease and muscular atrophy	2	12	14	1	2
	(g) 357							Other diseases of spinal cord	12	46	58	7	14
	(h) 366							Other and unspecified forms of neuralgia and neuritis	46	1,289	1,335	4	26
	(i) 367							Other diseases of cranial nerves	1	6	7	1	..
	(j) 369							Diseases of peripheral autonomic nervous system	4	83	87	..	6
	(k) 341, 344							} All other diseases of the nervous system and sense organs	31	524	555	10	18
	351, 354												
	355												
	360-365												
	368												
	395-398												
		<i>Carried forward</i> ..	12,923	59,379	72,302	3,892	13,051						

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	12,923	59,379	72,302	3,892	13,051
		VII.—DISEASES OF THE CIRCULATORY SYSTEM					
A 79	(a) 400	Rheumatic fever without mention of heart involvement	12	188	200	2	11
	(b) 401	Rheumatic fever with heart invol- vement	8	95	103	7	4
	(c) 402	Chorea	1	18	19	1	1
A 80	(a) 410-413	Diseases of valves specified as rheumatic	6	127	133	11	21
	(b) 414	Other endocarditis specified as rheumatic	1	10	11	2	
	(c) 415	Other myocarditis specified as rheumatic .. .. .	..	3	3	1	
	(d) 416	Other heart disease specified as rheumatic .. .. .	..	32	32	9	
A 81	(a) 420	Arteriosclerotic heart disease, inclu- ding coronary disease	3	184	187	58	9
	(b) 421	Chronic endocarditis not specified as rheumatic	10	81	91	8	
	(c) 422	Other myocardial degeneration	13	281	294	106	14
A 82	(a) 430	Acute and subacute endocarditis	1	39	40	13	2
	(b) 431	Acute myocarditis	12	134	146	54	5
	(c) 432	Acute pericarditis	2	35	37	9	3
	(d) 433	Functional disease of heart	47	1,016	1,063	266	38
	(e) 434	Other and unspecified diseases of heart	48	1,116	1,164	294	80
A 83	440-443	Hypertension with heart disease	31	574	605	156	37
A 84	444-447	Hypertension without mention of heart	47	1,224	1,271	86	45
A 85	(a) 450	General arteriosclerosis	1	28	29	3	1
	(b) 451	Aortic aneurysm specified as non- syphilitic and dissecting aneurysm .. .. .	..	34	34	5	1
	(c) 452	Other aneurysm, except of heart and aorta .. .. .	..	10	10	..	..
	(d) 453	Peripheral vascular disease .. .. .	..	8	8	..	1
	(e) 454	Arterial embolism and thrombosis	4	85	89	42	7
	(f) 455	Gangrene of unspecified cause	9	114	123	6	9
	(g) 456	Other diseases of arteries	4	59	63	2	7
A 86	(a) 460, 462	Varicose veins	1	110	111	..	8
	(b) 461	Haemorrhoids	36	1,191	1,227	1	35
	(c) 463-464	Phlebitis and thrombophlebitis	1	83	84	..	2
	(d) 465	Pulmonary embolism and infarction	1	44	45	12	3
	(e) 466	Other venous embolism and throm- bosis	2	30	32	5	1
	(f) 467	Other diseases of circulatory system	2	63	65	7	1
	(g) 468	(a) Adenitis	11	571	582	1	15
		(b) Lymphadenitis	2	160	162	..	2
		(c) Other diseases of lymph nodes and lymph channels	2	85	87	..	3
		VIII.—DISEASES OF THE RESPIRATORY SYSTEM					
A 87	(a) 470	Acute nasopharyngitis (common cold)	22	2,255	2,277	..	10
	(b) 471	Acute sinusitis	7	228	235	..	1
	(c) 472	Acute pharyngitis	9	830	839	1	11
	(d) 473	Acute tonsillitis	24	2,023	2,047	1	32
	(e) 474	Acute laryngitis and tracheitis	4	163	167	6	2
	(f) 475	Other acute upper respiratory infections	3	186	189	9	3
A 88	(a) 480	Influenza with pneumonia .. .. .	..	12	12	..	..
	(b) 481	Influenza with other respiratory manifestations, and influenza unqualified	23	1,750	1,773	..	24
		<i>Carried forward</i> ..	13,333	74,658	87,991	5,076	13,500

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	13,333	74,658	87,991	5,076	13,500
		VIII.—DISEASES OF THE RESPIRATORY SYSTEM—(cont.)					
	(c) 482	Influenza with digestive manifesta- tions, but without respiratory symptoms .. .. .	..	131	131	1	1
	(d) 483	Influenza with nervous manifesta- tions, but without digestive or respiratory symptoms .. .. .	..	2	37	2	2
A 89	490	Lobar pneumonia	16	726	742	82	17
A 90	491	Broncho-pneumonia	44	2,749	2,793	862	34
A 91	492-493	Primary atypical, other and unspeci- fied pneumonia	26	843	869	89	23
A 92	500	Acute bronchitis	39	2,394	2,433	23	37
A 93	(a) 501	Bronchitis unqualified	86	3,738	3,824	9	76
	(b) 502	Chronic bronchitis	66	1,060	1,126	37	64
A 94	510	Hypertrophy of tonsils and adenoids	6	154	160	..	5
A 95	(a) 518	Empyema	5	116	121	12	12
	(b) 521	Abscess of lung	10	148	158	21	17
A 96	519	Pleurisy	37	411	448	13	30
A 97	(a) 517	Other diseases of upper respiratory tract	3	375	378	7	9
	(b) 520	Spontaneous pneumothorax .. .. .	..	26	26	10	..
	(c) 522	Pulmonary congestion and hypostasis	..	7	7	2	1
	(d) 525	Other chronic interstitial pneu- monia .. .. .	..	5	5	..	..
	(e) 523	Pneumoconiosis .. .. .	..	6	6	..	..
	(f) 526	Bronchiectasis	25	509	534	31	27
	(g) 511-516 524 527 }	All other respiratory diseases ..	14	439	453	22	17
		IX.—DISEASES OF THE DIGESTIVE SYSTEM					
A 98	(a) 530	Dental caries	8	180	188	..	5
	(b) 531-535	(a) Gingivitis	2	82	84	..	..
		(b) Pyorrhoea	2	75	77	..	1
		(c) Other diseases of teeth and supporting structures	5	388	393	1	24
A 99	540	Ulcer of stomach	72	1,415	1,487	83	55
A 100	541	Ulcer of duodenum	23	460	483	23	32
A 101	543	Gastritis and duodenitis	50	2,046	2,096	8	52
A 102	550-553	Appendicitis	59	2,169	2,228	18	50
A 103	(a) 560	Hernia of abdominal cavity without mention of obstruction	31	1,320	1,351	6	37
	(b) 561	Hernia of abdominal cavity with obstruction	2	227	229	19	12
	(c) 570	(a) Intussusception	4	38	42	11	1
		(b) Volvulus .. .. .	..	4	4	2	2
		(c) Other intestinal obstruction ..	10	208	218	71	7
A 104	(a) 571.0	Gastro-enteritis and colitis between 4 weeks and 2 years	47	3,115	3,162	791	50
	(b) 571.1	Gastro-enteritis and colitis, ages 2 years and over	40	2,764	2,804	142	49
	(c) 572	Chronic enteritis and ulcerative colitis	9	145	154	10	5
A 105	(a) 581.0	Cirrhosis of liver without mention of alcoholism	19	711	730	135	33
	(b) 581.1	Cirrhosis of liver with alcoholism ..	1	20	21	4	..
A 106	(a) 584	Cholelithiasis	1	83	84	5	2
	(b) 585	Cholecystitis without mention of calculi	10	322	332	12	10
A 107	(a) 536	Stomatitis	3	228	231	..	6
	(b) 538	Other diseases of buccal cavity ..	3	67	70	1	1
	(c) 539	(a) Functional disorders of oeso- phagus .. .. .	..	32	32	3	1
		<i>Carried forward</i> ..	14,113	104,629	118,742	7,644	14,307

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	14,113	104,629	118,742	7,644	14,307
		IX.—DISEASES OF THE DIGESTIVE SYSTEM—(cont.)					
		(b) Stricture or obstruction of oesophagus	3	99	102	7	5
(d)	544	Disorders of function of stomach ..	17	935	952	5	19
(e)	545	Other diseases of stomach and duodenum	7	432	439	9	9
(f)	573	(a) Constipation	2	342	344	..	1
		(b) Other functional disorders of intestines	15	803	818	10	11
(g)	574	Anal fissure and fistula	10	310	320	..	12
(h)	575	Abscess of anal and rectal regions ..	8	275	283	1	14
(i)	576	Peritonitis	9	214	223	97	3
(j)	578	Other diseases of intestines and peritoneum	4	95	99	8	2
(k)	580	(a) Acute yellow atrophy of liver ..	..	4	4	4	..
		(b) Degeneration of liver .. .. .	..	2	2	1	..
		(c) Hepatitis	24	575	599	29	23
(l)	583	Other diseases of liver	10	195	205	25	9
(m)	586	Other diseases of gall-bladder and biliary ducts	1	175	176	18	5
(n)	587	Diseases of pancreas .. .. .	..	32	32	7	4
(o)	537, 542 577, 582	Other diseases of digestive system ..	22	751	773	9	11
		X.—DISEASES OF THE GENITO-URINARY SYSTEM					
A 108	590	Acute nephritis	31	415	446	45	20
A 109	(a) 591	Nephritis with oedema, including nephrosis	7	120	127	8	7
	(b) 592	Chronic nephritis	23	328	351	71	25
	(c) 593	Nephritis not specified as acute or chronic	34	548	582	43	35
	(d) 594	Other renal sclerosis	6	57	63	..	5
A 110	600	Infections of kidney	8	510	518	12	18
A 111	(a) 602	Calculi of kidney and ureter	7	366	373	4	11
	(b) 604	Calculi of other parts of urinary system	6	266	272	2	10
A 112	610	Hyperplasia of prostate	5	87	92	4	4
A 113	620-621	Diseases of breast	1	133	134	..	3
A 114	(a) 603	Other diseases of kidney and ureter	24	600	624	24	4
	(b) 605	Cystitis	13	491	504	5	11
	(c) 606	Other diseases of bladder	5	180	185	1	8
	(d) 608	Stricture of urethra	10	281	291	1	16
	(e) 609	Other diseases of urethra	7	274	281	1	7
	(f) 612	Other diseases of prostate	8	236	244	10	18
	(g) 613	Hydrocele	6	272	278	..	5
	(h) 614	Orchitis and epididymitis	5	273	278	..	3
	(i) 617	Other diseases of male genital organs	22	664	686	..	9
	(j) 622	Acute salpingitis and oophoritis ..	8	262	270	1	5
	(k) 625	Other diseases of ovary and Fallopian tube	3	221	224	3	3
	(l) 626	Diseases of parametrium and pelvi- peritoneum (female)	2	156	158	..	7
	(m) 630	Infective disease of uterus, vagina and vulva	3	239	242	5	10
	(n) 633	Other diseases of uterus	15	509	524	9	11
	(o) 634	Disorders of menstruation	16	759	775	..	15
	(p) 637	Other diseases of female genital organs	13	494	507	1	8
	(q) 601 607, 611 615-616 623-624 631-632 635-636	All other diseases of the genito- urinary system	21	585	606	14	23
		<i>Carried forward</i> ..	14,554	119,194	133,748	8,138	14,736

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	14,554	119,194	133,748	8,138	14,736
		XI.—DELIVERIES AND COMPLICATIONS OF PREG- NANCY, CHILDBIRTH AND THE PUERPERIUM					
A 115	(a) 640	Pyelitis and pyelonephritis of preg- nancy	1	212	213	2	8
	(b) 641	Other infections of genito-urinary tract during pregnancy .. .. .	..	10	10	..	..
	(c) 681	Sepsis of childbirth and the puer- perium	6	197	203	8	3
	(d) 682	Puerperal phlebitis and thrombosis ..	..	7	7	2	3
	(e) 684	Puerperal pulmonary embolism .. ..	..	5	5	5	..
A 116	(a) 642	(a) Albuminuria of pregnancy	7	96	103	..	6
		(b) Eclampsia of pregnancy	6	167	173	53	10
		(c) Hyperemesis gravidarum	8	346	354	3	12
		(d) Acute yellow atrophy of liver .. ..	..	14	14	1	..
		(e) Other toxæmias of pregnancy	21	591	612	23	22
	(b) 652	Abortion with toxæmia, without mention of sepsis	2	31	33	1	2
	(c) 685	Puerperal eclampsia	2	87	89	16	..
	(d) 686	Other forms of puerperal toxæmia ..	3	86	89	1	4
A 117	(a) 643	Placenta prævia	1	95	96	8	..
	(b) 644	Other hæmorrhage of pregnancy	7	543	550	11	11
	(c) 670	Delivery complicated by placenta prævia or antepartum hæ- morrhage	5	342	347	25	12
	(d) 671	Delivery complicated by retained placenta	5	518	523	36	6
	(e) 672	Delivery complicated by other post- partum hæmorrhage	2	427	429	41	10
A 118	650	Abortion without mention of sepsis or toxæmia	55	4,847	4,902	7	81
A 119	651	Abortion with sepsis	7	320	327	9	12
A 120	(a) 645	Ectopic pregnancy	3	168	171	12	8
	(b) 646	Anaemia of pregnancy	54	1,200	1,254	7	27
	(c) 683	Pyrexia of unknown origin during the puerperium	3	67	70	..	3
	(d) 688.1	Puerperal psychoses	3	46	49	1	..
	(e) 689	Mastitis and other disorders of lactation .. .. .	..	70	70	..	2
	(f) 647-649 673-780 687 688.0 688.2-688.3	Other complications of pregnancy, childbirth and the puerperium ..	57	3,038	3,095	70	85
	(g) 660	Delivery without complications ..	647	51,630	52,277	1	702
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE					
		AND					
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT					
A 121	(a) 690	Boil and carbuncle	15	608	623	..	18
	(b) 691-693	Cellulitis and abscess	145	5,113	5,258	13	140
	(c) 694-498	Other infections of skin and sub- cutaneous tissue	36	865	901	3	36
A 122	(a) 720	Acute arthritis due to pyogenic organisms	4	47	51	..	2
	(b) 721	Acute nonpyogenic arthritis .. .. .	..	33	33	..	..
	(c) 722	Rheumatoid arthritis and allied conditions	17	349	366	2	25
		<i>Carried forward</i> ..	15,676	191,369	207,045	8,499	15,986

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	15,676	191,369	207,045	8,499	15,986
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE—(cont.)					
		AND					
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT—(cont.)					
A 123	(d) 723-725	Arthritis specified and unspecified ..	55	1,135	1,190	1	55
	(a) 726	Muscular rheumatism	6	369	375	..	12
	(b) 727	Rheumatism unspecified	6	265	271	..	7
A 124	730	Osteomyelitis and periostitis ..	34	481	515	..	40
A 125	(a) 737	Ankylosis of joint	1	26	27	..	4
	(b) 745-749	Other acquired musculoskeletal deformities	3	86	89	..	18
A 126	(a) 715	Chronic ulcer of skin (including tropical ulcer)	121	2,055	2,176	..	89
	(b) 700-714 716	All other diseases of skin	115	3,401	3,516	6	85
	(c) 731-736 738-744	All other diseases of musculoskeletal system	15	400	415	1	19
		XIV.—CONGENITAL MAL- FORMATIONS					
A 127	751	Spina bifida and meningocele ..	..	21	21	8	1
A 128	754	Congenital malformations of circula- tory system	3	64	67	21	2
A 129	(a) 750	Monstrosity .. ..	..	7	7	7	..
	(b) 752	Congenital hydrocephalus .. ..	..	31	31	14	1
	(c) 753	Other congenital malformations of nervous system and sense organs ..	1	13	14	2	..
	(d) 755	Cleft palate and harelip	12	265	277	5	11
	(e) 756	(a) Congenital hypertrophic pyloric stenosis .. ..	..	12	12	3	..
		(b) Imperforate anus	3	62	65	23	..
		(c) Other congenital malformations of digestive system .. ..	..	16	16	8	1
	(f) 757	Congenital malformations of genito- urinary system .. ..	..	8	8	..	..
	(g) 758	Congenital malformations of bone and joint	5	36	41	1	1
	(h) 759	Other and unspecified congenital malformations, not elsewhere classified	3	56	59	14	..
		XV.—CERTAIN DISEASES OF EARLY INFANCY					
A 130	(a) 760	Intracranial and spinal injury at birth .. ..	..	42	42	38	..
	(b) 761	Other birth injury .. ..	..	35	35	17	..
A 131	762	Postnatal asphyxia and atelectasis ..	..	290	290	229	4
A 132	(a) 764	Diarrhoea of newborn	5	223	228	74	2
	(b) 765	Ophthalmia neonatorum	1	29	30	1	2
	(c) 763	Pneumonia of newborn	2	133	135	82	4
	(d) 766	Pemphigus neonatorum	1	10	11	5	1
	(e) 767	Umbilical sepsis .. ..	..	58	58	11	1
	(f) 768	Other sepsis of newborn .. ..	..	9	9	4	..
		<i>Carried forward</i> ..	16,068	201,007	217,075	9,076	16,346

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	16,068	201,007	217,075	9,076	16,346
		XV.—CERTAIN DISEASES OF EARLY INFANCY—(cont.)					
A 133	770	Haemolytic disease of newborn ..	..	34	34	28	
A 134	769	All other defined diseases of early					
	771-772	infancy	8	240	248	43	
A 135	(a) 773	Congenital debility	1	28	29	18	
	(b) 774	Premature birth	48	1,842	1,890	848	62
	(c) 775-776	Other ill-defined diseases peculiar to early infancy and immaturity unqualified	2	99	101	32	
		XVI.—SYMPTOMS, SENILITY AND ILL-DEFINED CONDI- TIONS					
A 136	794	Senility without mention of psy- choses	253	1,052	1,305	269	212
A 137	(a) 780	Infantile convulsions	3	283	286	47	5
	(b) 788.8	Pyrexia of unknown origin	171	5,452	5,623	71	127
	(c) 793	Observation, without need for further medical care	274	8,633	8,907	..	260
	(d) 781-787 789-792 795 788.1-788.7 788.9	(a) Malingering	1	90	91	..	1
		(b) Sudden death (cause unknown)	..	1	1	1	
		(c) Found dead (cause unknown) ..	..	..	..	..	..
		(d) Other ill-defined and unknown causes of morbidity and mortal- ity	53	1,162	1,215	45	51
		XVII.—ACCIDENTS, POISON- INGS AND VIOLENCE					
		"E" CODE: ALTERNATIVE CLASSIFI- CATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)					
AE 138	E 810-E 835	Motor vehicle accidents	96	2,407	2,503	176	73
AE 139	(a) E 800-E 802	Railway accidents	2	26	28	5	
	(b) E 850-E 858	Water transport accidents .. .. .	..	8	8	..	
	(c) E 860-E 866	Aircraft accidents .. .. .	..	1	1	..	
	(d) E 840-E 845	Other transport accidents	8	202	210	7	5
AE 140	(a) E 870	Accidental poisoning by morphia and other opium derivatives .. .. .	..	8	8	2	
	(b) E 874	Accidental poisoning by other analgesic and soporific drugs ..	..	22	22	1	
	(c) E 878	Accidental poisoning by other and unspecified drugs	4	110	114	4	
	(d) E 883	Accidental poisoning by corrosive aromatics, acids and caustic alkalies	2	171	173	27	5
	(e) E 884	Accidental poisoning by mercury and its compounds .. .. .	..	..	..	..	..
	(f) E 885	Accidental poisoning by lead and its compounds .. .. .	..	3	3	..	..
	(g) E 886	Accidental poisoning by arsenic and antimony and their compounds ..	..	47	47	5	
	(h) E 888	Accidental poisoning by other and unspecified solid or liquid sub- stances	2	76	78	2	
	(i) E 890-E 895	Accidental poisoning by gases and vapours .. .. .	..	14	14	..	..
		<i>Carried forward</i> ..	16,996	223,018	240,014	10,707	17,147

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	16,996	223,018	240,014	10,707	17,147
		XVII.—ACCIDENTS, POISON- INGS AND VIOLENCE—(cont.)					
		"E" CODE: ALTERNATIVE CLASSIFI- CATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES) —(cont.)					
	(j) E 871-E873 E 875-E877 E 879-E882 E 887	Other accidental poisoning	1	104	105	3	
AE 141	E 900-E 904	Accidental falls	145	4,379	4,524	83	129
AE 142	E 912	Accident caused by machinery ..	13	123	136	1	7
AE 143	E 916	Accident caused by fire and explosion of combustible material	9	215	224	21	11
AE 144	E 917-E 918	Accident caused by hot substance, corrosive liquid, steam and radia- tion	23	489	512	15	17
AE 145	E 919	Accident caused by firearm	8	131	139	9	8
AE 146	E 929	Accidental drowning and submer- sion .. .. .	..	17	17	1	1
AE 147 (a)	E 913	Accidents caused by cutting or piercing instruments	37	1,224	1,261	4	38
	(b) E 914	Accidents caused by electric current	2	37	39	1	
	(c) E 920	Foreign body entering eye and adnexa .. .. .	..	59	59	..	6
	(d) E 923	Foreign body entering other orifice..	1	256	257	..	
	(e) E 925	Accidental mechanical suffocation ..	..	..	..	..	..
	(f) E 926	Lack of care of infants under 1 year of age .. .. .	..	4	4	2	
	(g) E 927	Accidents caused by bites and stings of venomous animals and insects	18	1,332	1,350	11	19
	(h) E 928	Other accidents caused by animals	7	354	361	4	6
	(i) E 931	Excessive heat .. .. .	..	2	2	..	..
	(j) E 932	Excessive cold .. .. .	..	..	..	..	..
	(k) E 933	Hunger, thirst and exposure .. ..	..	1	1	..	..
	(l) E 934	Cataclysm .. .. .	..	..	..	..	..
	(m) E 935	Lightning .. .. .	..	21	21	..	..
	(n) E 936	(a) Accidents in mines and quarries	4	140	144	2	2
		(b) Agricultural and forestry acci- dents	1	54	55	5	2
		(c) Accidental injury by crushing or landslide	4	80	84	4	3
		(d) Other and unspecified accidents	18	577	595	5	12
	(o) E 940	Generalized vaccinia following vaccination .. .. .	..	7	7	..	..
	(p) E 941-E 942	Other complications of smallpox vaccination .. .. .	..	3	3	..	..
	(q) E 950-E953 E 955-E959	Accidents due to medical or surgical intervention .. .. .	..	6	6	2	
	(r) E 954	Anaesthetic accidents .. .. .	..	1	1	1	
	(s) E910-E911 E 915 E921-E922 E924-E930 E943-E946 E960-E965	All other accidental causes	8	392	400	5	14
AE 148 (a)	E 970	Suicide and self-inflicted injury by analgesic and soporific substances	..	26	26	9	
	(b) E 971	Suicide and self-inflicted injury by other solid and liquid substances ..	4	170	174	52	5
	(c) E 972	Suicide and self-inflicted injury by gases in domestic use .. .. .	..	..	..	..	..
	(d) E 973	Suicide and self-inflicted injury by other gases .. .. .	..	..	..	..	..
		<i>Carried forward</i> ..	17,299	233,222	250,521	10,947	17,427

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
		<i>Brought forward</i> ..	17,299	233,222	250,521	10,947	17,427
		XVII.—ACCIDENTS, POISON- INGS AND VIOLENCE—(cont.)					
		"E" CODE: ALTERNATIVE CLASSIFI- CATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES) —(cont.)					
	(e) E 974	Suicide and self-inflicted injury by hanging or strangulation ..	..	12	12	4	
	(f) E 975	Suicide and self-inflicted injury by submersion (drowning) ..	..	9	9	2	2
	(g) E 976	Suicide and self-inflicted injury by firearms and explosives ..	..	2	2	1	
	(h) E 977	Suicide and self-inflicted injury by cutting or piercing instruments ..	1	42	43	6	
	(i) E 978	Suicide and self-inflicted injury by jumping from high place ..	1	6	7	3	
	(j) E 979	Suicide and self-inflicted injury by other and unspecified means ..	..	9	9	1	
AE 149	(a) E 980	Non-accidental poisoning by another person ..	..	..	..	..	..
	(b) E 981	Assault by firearm and explosive ..	10	164	174	20	7
	(c) E 982	Assault by cutting or piercing instru- ments ..	16	358	374	20	10
	(d) E 983	Assault by other means ..	36	995	1,031	8	21
	(e) E 984	Injury by intervention of police ..	..	20	20	..	2
	(f) E 985	Execution (legal) ..	..	1	1	..	..
AE 150	E 990-E 999	Injury resulting from operations of war ..	..	..	..	..	..
		"N" CODE: ALTERNATIVE CLASSIFI- CATION OF ACCIDENTS, POISONING AND VIOLENCE (NATURE OF INJURY)					
AN 138	N 800-N 804	Fracture of skull ..	9	291	300	87	12
AN 139	N 805-N 809	Fracture of spine and trunk ..	32	315	347	18	25
AN 140	N 810-N 829	Fracture of limbs ..	147	2,168	2,315	14	130
AN 141	N 830-N 839	Dislocation without fracture ..	9	178	187	..	9
AN 142	N 840-N 848	Sprains and strains of joints and adjacent muscles ..	11	488	499	..	8
AN 143	N 850-N 856	Head injury excluding fracture ..	21	912	933	28	26
AN 144	N 860-N 869	Internal injury of chest, abdomen and pelvis ..	2	79	81	10	5
AN 145	N 870-N 908	Laceration and open wounds ..	86	3,935	4,021	2	109
AN 146	N 910-N 929	Superficial injury, contusion and crushing with intact skin surface ..	46	1,748	1,794	..	28
AN 147	N 930-N 936	Effects of foreign body entering through orifice ..	..	45	45	..	2
AN 148	N 940-N 949	Burns ..	47	894	941	45	46
AN 149	N 960-N 979	Effects of poisons ..	6	55	61	..	2
AN 150	N 950-N 959 } N 980-N 999 }	All other and unspecified effects of external causes ..	9	289	298	5	3
		TOTAL ..	17,788	246,237	264,025	11,221	17,874

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1955—(cont.)

Nationalities	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
Europeans	47	2,442	2,489	24	57
Eurasians	63	957	1,020	37	46
Chinese	10,562	111,514	122,076	7,100	10,644
Indians	3,430	76,666	80,096	2,569	3,298
Malays	3,503	52,040	55,543	1,371	3,654
Javanese	100	1,285	1,385	55	96
Japanese	2	6	8	1	1
Others	81	1,327	1,408	64	78
Total ..	17,788	246,237	264,025	11,221	17,874
Healthy persons admitted to hospitals to accompany children or friends	198	11,370	11,568	..	75

SUMMARY ACCORDING TO MEN, WOMEN AND CHILDREN

	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55
Men	11,554	104,941	116,495	4,526	11,472
Women	5,240	107,429	112,669	1,975	5,415
Children: (1 to 10 years)	719	19,381	20,100	1,480	684
Infants: (under 1 year)	275	14,486	14,761	3,240	303
Total ..	17,788	246,237	264,025	11,221	17,874

SUMMARY ACCORDING TO HOSPITALS AND AVERAGE DAILY
NUMBER OF PATIENTS

	Remain- ing at end of 31-12-54	Admis- sions	Total cases treated	Deaths	Remain- ing at end of 31-12-55	Average daily number of patients	Number of beds
1. Kedah	833	26,816	27,649	844	849	936	1,049
2. Perlis	103	3,477	3,580	101	105	100	120
3. Penang	1,335	24,971	26,306	1,188	1,331	1,393	1,880
4. Perak	1,844	53,253	55,097	2,721	1,719	1,901	2,565
5. Selangor	1,434	36,402	37,836	1,780	1,438	1,521	1,542
6. Negri Sembilan	962	23,240	24,202	967	942	974	1,219
7. Malacca	680	11,590	12,270	665	638	702	782
8. Johore	1,492	36,158	37,650	1,682	1,562	1,714	1,908
9. Kelantan	347	6,601	6,948	193	346	366	492
10. Trengganu	270	4,680	4,950	148	212	255	318
11. Pahang	657	15,988	16,645	656	585	674	792
12. Leper Settlement, Sungei Buloh	2,401	575	2,976	39	2,429	2,413	2,490
13. Leper Settlement, Pulau Jerejak	440	51	491	5	453	450	460
14. Leper Settlement, Johore Bahru	416	78	494	7	423	416	350
15. Leper Camp, Kota Bharu, Kelantan	40	22	62	..	44	43	45
16. Leper Hospital, Kuala Trengganu	14	10	24	..	17	15	24
17. Central Mental Hospital, Tg. Rambutan	3,558	1,557	5,115	169	3,607	3,683	3,000
18. Mental Hospital, Tampoi, J. Bahru	962	768	1,730	56	1,174	1,018	1,200
TOTAL ..	17,788	246,237	264,025	11,221	17,874	18,574	20,236

TABLE 1A

STATEMENT OF GENERAL HOSPITALS, DISTRICT AND MATERNITY HOSPITALS

State/Settlement	Average daily number of patients	Patients remaining at the end of the year	Patients admitted	Deaths	Death rate per 100 patients treated
KEDAH					
General Hospital, Alor Star	447	407	12,718	428	3.2
District Hospital, Sungei Patani	231	185	7,381	253	3.3
District Hospital, Kulim	181	175	5,249	146	2.7
District Hospital, Baling	14	16	501	4	0.8
District Hospital, Langkawi	63	50	967	13	1.3
PERLIS					
District Hospital, Kangar	100	103	3,477	101	2.8
PENANG					
General Hospital, Penang	555	552	9,360	671	6.9
Maternity Hospital, Penang	74	55	4,297	122	2.8
Perak Road Hospital, Penang	59	63	29	16	17.4
Prison Hospital, Penang	6	4	168	—	—
District Hospital, Balik Pulau	18	15	404	13	3.1
Quarantine Station Hospital, Pulau Jerejak	—	—	75	—	—
Tuberculosis Hospital, Pulau Jerejak	395	385	305	43	6.2
District Hospital, Butterworth	80	54	2,913	104	3.5
District Hospital, Bukit Mertajam	123	136	4,963	142	2.8
District Hospital, Sungei Bakap	83	71	2,457	77	3.0
PERAK					
District Hospital, Parit Buntar	74	69	2,694	71	2.6
General Hospital, Taiping	350	346	8,118	468	5.3
District Hospital, Kuala Kangsar	128	112	3,798	131	3.4
Women's Hospital, Kuala Kangsar	122	118	4,008	169	4.1
District Hospital, Ipoh	480	446	13,218	854	6.3
General Hospital, Batu Gajah	273	267	5,210	238	4.3
District Hospital, Kampar	60	86	2,493	116	4.5
District Hospital, Tapah	105	86	3,555	169	4.6
District Hospital, Tanjong Malim	44	39	2,328	81	3.4
District Hospital, Telok Anson	154	146	4,892	290	5.8
District Hospital, Lumut	98	117	2,381	121	4.8
District Hospital, Grik	13	12	558	13	2.3
SELANGOR					
Bungsar Hospital, Kuala Lumpur	42	21	1,471	28	1.9
General Hospital, Kuala Lumpur	599	519	19,541	1,139	5.7
Tuberculosis (Clinic) Hospital, Kuala Lumpur	101	96	372	18	3.8
Tai Wah (Decrepit) Hospital, Kuala Lumpur	334	361	21	33	8.6
Police Depot Hospital, Kuala Lumpur	6	5	354	—	—
Prison Hospital, Kuala Lumpur	13	15	135	—	—
District Hospital, Klang	217	216	7,003	373	5.2
District Hospital, Kajang	130	118	4,667	128	2.7
District Hospital, Kuala Kubu Bharu	79	83	2,838	61	2.1
NEGRI SEMBILAN					
General Hospital, Seremban	458	466	11,746	605	5.0
District Hospital, Kuala Pilah	176	176	2,414	73	2.8
Women's Hospital Kuala Pilah	92	84	1,805	105	5.6
District Hospital, Port Dickson	99	107	2,330	88	3.6
District Hospital, Tampin	86	73	3,192	63	1.9
District Hospital, Jekebu	61	56	1,668	33	1.9
Prison Hospital, Seremban	2	—	85	—	—
<i>Carried forward</i>	6,825	6,511	168,159	7,601	—

TABLE 1A—(cont.)

STATEMENT OF GENERAL HOSPITALS, DISTRICT AND MATERNITY HOSPITALS—(cont.)

State/Settlement	Average daily number of patients	Patients remaining at the end of the year	Patients admitted	Deaths	Death rate per 100 patients treated
<i>Brought forward</i> ..	6,825	6,511	168,159	7,601	—
MALACCA					
General Hospital, Malacca	601	579	11,184	646	5.5
District Hospital, Alor Gajah	97	93	97	19	10.0
Federal S. C. Depot Hospital, Malacca	—	—	134	—	—
Henry Gurney School Hospital, Malacca	4	8	126	—	—
Prison Hospital, Malacca	—	—	49	—	—
JOHORE					
General Hospital, Johore Bharu	591	503	9,866	498	4.8
District Hospital, Kota Tinggi	106	101	2,059	68	3.1
District Hospital, Pontian	73	62	2,026	56	2.7
District Hospital, Batu Pahat	156	146	4,200	203	4.7
District Hospital, Kluang	232	190	5,855	245	4.0
District Hospital, Mersing	42	43	1,107	27	2.3
District Hospital, Muar	257	220	5,551	329	5.7
District Hospital, Tangkak	95	89	1,752	65	3.5
District Hospital, Segamat	162	138	3,742	191	4.9
KELANTAN					
State Hospital, Kota Bharu	314	293	4,996	168	3.2
District Hospital, Kuala Krai	44	47	1,331	24	1.7
Prison Hospital, Pkg. Chepa	8	7	274	1	0.4
TRENGGANU					
General Hospital, Kuala Trengganu	160	173	2,355	87	3.4
District Hospital, Kemaman	46	40	803	30	3.6
District Hospital, Dungun	24	29	894	24	2.6
District Hospital, Besut	25	28	628	7	1.1
PAHANG					
General Hospital, Kuala Lipis	135	137	3,216	129	3.8
District Hospital, Pekan	48	37	872	10	1.1
District Hospital, Kuantan	163	151	2,770	124	4.2
District Hospital, Raub	108	114	2,975	104	3.4
District Hospital, Bentong	115	117	2,568	171	6.4
District Hospital, Mentekab	105	101	3,587	118	3.2
(FEDERAL) SPECIAL INSTITUTIONS					
Leper Settlement, Sungei Buloh	2,413	2,401	575	39	1.3
Leper Settlement, Pulau Jerejak	450	440	51	5	1.0
Leper Settlement, Johore Bahru	416	416	78	7	1.4
Leper Hospital, Kota Bharu, Kelantan	43	40	22	—	—
Leper Hospital, Kuala Trengganu, Trengganu	15	14	10	—	—
Central Mental Hospital, Tanjong Rambutan	3,683	3,558	1,557	169	3.3
Mental Hospital, Tampoi, Johore Bharu	1,018	962	768	56	3.2
Total ..	18,574	17,788	246,237	11,221	—

TABLE 2

MALARIA ADMISSIONS (INCLUDING CLINICAL MALARIA) IN GOVERNMENT HOSPITALS BY STATES/
SETTLEMENTS AND MONTHS FOR 1955

State/Settlement	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Kedah	106	94	68	46	123	117	102	69	64	40	51	930
Perlis	19	25	10	20	38	52	50	44	23	19	30	345
Penang	39	22	20	32	27	30	59	37	29	45	33	398
Perak	142	109	133	153	179	233	205	196	231	198	166	2,133
Selangor	51	36	34	28	77	86	84	101	50	70	35	693
Negri Sembilan	34	20	47	61	119	135	127	111	77	84	40	906
Malacca	16	21	16	14	32	32	43	36	43	28	26	351
Johore	55	57	44	66	89	119	97	95	78	91	74	949
Kelantan	33	40	51	51	62	64	50	49	38	40	25	525
Trengganu	31	34	39	26	33	47	44	53	35	39	38	437
Pahang	88	89	99	80	190	240	151	132	113	75	93	1,444
Total ..	614	547	561	577	969	1,155	1,012	923	781	729	632	611	9,111

TABLE 2A

MALARIA (POSITIVE ADMISSIONS) IN GOVERNMENT HOSPITALS BY STATES/SETTLEMENTS AND MONTHS FOR 1955

State/Settlement	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Kedah ..	72	48	38	31	94	80	81	43	51	34	46	39	657
Perlis ..	11	19	7	11	10	19	27	28	16	15	11	24	198
Penang ..	33	20	18	13	19	23	35	27	22	43	20	22	295
Perak ..	59	62	58	80	89	115	94	91	94	67	78	70	957
Selangor ..	44	33	27	25	71	86	79	97	49	63	40	31	645
Negri Sembilan ..	30	18	45	53	110	126	121	102	77	83	51	39	855
Malacca ..	6	6	6	7	23	21	21	28	22	7	16	10	173
Johore ..	20	21	22	27	49	71	68	60	48	48	44	46	524
Kelantan ..	15	24	32	24	41	33	22	21	15	18	12	15	272
Trengganu ..	5	8	19	9	22	23	23	42	25	25	14	30	245
Pahang ..	35	45	62	37	94	135	86	83	62	40	43	61	783
Total ..	330	304	334	317	622	732	657	622	481	443	375	387	5,604

TABLE 3
SURGICAL OPERATIONS FOR 1955

State/Settlement	Operations	Deaths
Kedah.. .. .	3,717	45
Perlis	526	—
Penang	3,987	58
Perak	17,955	142
Selangor	21,302	192
Negri Sembilan	2,277	30
Malacca	3,439	34
Johore	9,328	54
Kelantan	1,457	6
Trengganu	1,664	7
Pahang	5,373	21
Total ..	71,025	589

TABLE 4
OPHTHALMIC PATIENTS FOR 1955

State/Settlement	Eye diseases proper	Eye Injuries	Refraction	General diseases affecting eyes	Disorganised eyes	Total	Operations
Kedah	7,455	157	581	125	26	8,344	235
Perlis	1,821	11	—	150	—	1,982	—
Penang	4,238	467	846	592	70	6,213	576
Perak	4,347	514	4,282	458	102	9,703	885
Selangor	8,401	1,069	1,612	—	87	11,169	806
Negri Sembilan	4,033	363	724	196	33	7,866	487
Malacca	988	81	1,837	190	18	3,114	114
Johore	2,832	279	2,291	367	8	5,777	292
Kelantan	9,753	58	—	22	—	9,833	81
Trengganu.. .. .	—	—	—	—	—	—	—
Pahang	992	8	89	29	1	1,119	14
Total ..	44,860	3,007	12,262	2,129	345	65,120	3,490

TABLE 5

SUMMARY OF OUT-PATIENTS TREATED IN EACH STATE/SETTLEMENT

(Excluding those who were treated at Child Health Centres, School Inspections and Special Clinics)

Hospitals and Dispensaries	Adult Males	Adult Females	Children under 10 years	Total
KEDAH				
At Hospitals	54,575	46,327	49,051	149,953
At Static Dispensaries	58,772	46,203	61,371	166,346
By Travelling Dispensaries	23,942	12,787	20,925	57,654
Total	<u>137,289</u>	<u>105,317</u>	<u>131,347</u>	<u>373,953</u>
PERLIS				
At Hospitals	8,179	6,953	7,599	22,731
At Static Dispensaries	6,657	5,528	8,075	20,260
By Travelling Dispensaries	892	555	2,447	3,894
Total	<u>16,228</u>	<u>13,036</u>	<u>18,121</u>	<u>46,885</u>
PENANG				
At Hospitals	50,278	37,330	37,835	125,443
At Static Dispensaries	19,108	29,347	43,431	91,886
By Travelling Dispensaries	18,180	16,446	22,716	57,342
Total	<u>87,566</u>	<u>83,123</u>	<u>103,982</u>	<u>274,671</u>
PERAK				
At Hospitals	123,983	96,499	89,710	310,192
At Static Dispensaries	57,311	28,918	36,591	122,820
By Travelling Dispensaries:				
(i) Road	60,519	40,272	51,380	152,171
(ii) River	5,201	3,107	3,631	11,939
Total	<u>247,014</u>	<u>168,796</u>	<u>181,312</u>	<u>597,122</u>
SELANGOR				
At Hospitals	84,968	62,234	72,250	219,452
At Static Dispensaries	73,014	47,796	74,217	195,027
By Travelling Dispensaries	12,898	10,538	21,758	45,194
Total	<u>170,880</u>	<u>120,568</u>	<u>168,225</u>	<u>459,673</u>
NEGRI SEMBILAN				
At Hospitals	44,841	32,412	38,410	115,663
At Static Dispensaries	25,583	20,152	25,801	71,536
By Travelling Dispensaries	15,651	14,851	17,444	47,946
Total	<u>86,075</u>	<u>67,415</u>	<u>81,655</u>	<u>235,145</u>

TABLE 5—(cont.)

SUMMARY OF OUT-PATIENTS TREATED IN EACH STATE/SETTLEMENT—(cont.)

Hospitals and Dispensaries	Adult Males	Adult Females	Children under 10 years	Total
MALACCA				
At Hospitals	15,187	11,550	11,108	37,845
At Static Dispensaries	21,113	11,336	14,138	46,587
By Travelling Dispensaries	18,286	19,710	28,627	66,623
Total	54,586	42,596	53,873	151,055
JOHORE				
At Hospitals	55,639	30,898	38,680	125,217
At Static Dispensaries	60,730	28,990	50,074	139,794
By Travelling Dispensaries:				
(i) Road	41,371	25,376	52,551	119,298
(ii) River	4,211	2,590	3,823	10,624
Total	161,951	87,854	145,128	394,933
KELANTAN				
At Hospitals	19,065	10,839	9,989	39,893
At Static Dispensaries	22,604	12,738	15,667	51,009
By Travelling Dispensaries:				
(i) Road	20,182	13,289	37,640	71,111
(ii) River	5,575	4,101	4,933	14,609
Total	67,426	40,967	68,229	176,622
TRENGGANU				
At Hospitals	24,527	14,767	18,040	57,334
At Static Dispensaries	12,281	8,198	14,252	34,731
By Travelling Dispensaries:				
(i) Road	36,341	27,141	40,101	103,583
(ii) River	3,759	2,563	3,597	9,919
Total	76,908	52,669	75,990	205,567
PAHANG				
At Hospitals	47,682	26,674	37,941	112,297
At Static Dispensaries	14,756	9,767	14,443	38,966
By Travelling Dispensaries:				
(i) Road	12,857	7,996	10,299	31,152
(ii) River	12,127	8,818	11,069	32,014
Total	87,422	53,255	73,752	214,429
FEDERATION OF MALAYA				
At Hospitals	528,924	376,483	410,613	1,316,020
At Static Dispensaries	371,929	248,973	358,060	978,962
By Travelling Dispensaries:				
(i) Road	261,119	188,961	305,888	755,968
(ii) River	30,873	21,179	27,053	79,105
Total	1,192,845	835,596	1,101,614	3,130,055

TABLE 6

OUT-PATIENTS (FIXED DISPENSARIES)

RETURN OF DISEASES FOR THE YEAR 1955

INTERMEDIATE LIST OF 150 CAUSES FOR TABULATION OF MORBIDITY AND MORTALITY—(See footnote.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
I.—INFECTIVE AND PARASITIC DISEASES						
A 1	001-008	Tuberculosis of respiratory system	4,022	1,468	101	5,591
A 2	010	Tuberculosis of meninges and central nervous system	3	2	7	12
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	1	..	..	1
A 4	012-013	Tuberculosis of bones and joints	37	21	47	105
A 5	(a) 014	Tuberculosis of skin and subcutaneous cellular tissue	6	1	..	7
	(b) 015	Tuberculosis of lymphatic system	38	35	29	102
	(c) 016	Tuberculosis of genito-urinary system . .	3	1	..	4
	(d) 017	Tuberculosis of adrenal glands	14	10	4	28
	(e) 018	Tuberculosis of other organs	4	8	5	17
	(f) 019	Disseminated tuberculosis . . . . .	..	..	..	..
A 6	020	Congenital syphilis	2	2	38	42
A 7	(a) 021.0-021.1	Primary syphilis	88	16	..	104
	(b) 021.2	Secondary syphilis	469	237	2	708
	(c) 021.3	Early syphilis, relapse following treatment..	..	..	..	..
	(d) 021.4	Early syphilis (unspecified stage)	23	12	..	35
A 8	024	Tabes dorsalis	7	1	..	8
A 9	025	General paralysis of insane . . . . .	..	..	..	..
A 10	(a) 022	Aneurysm of aorta . . . . .	..	..	..	..
	(b) 023	Other cardiovascular syphilis . . . . .	..	..	..	..
	(c) 026	Other syphilis of central nervous system . .	5	..	..	5
	(d) 027	Tertiary syphilis	138	144	..	282
	(e) 028	Latent syphilis . . . . .	..	..	..	..
	(f) 029	Syphilis unqualified	121	48	6	175
A 11	(a) 030	Acute or unspecified gonorrhoea	2,171	315	8	2,494
	(b) 031	Chronic gonococcal infection of genito- urinary system	106	14	..	120
	(c) 032	Gonococcal infection of joint	57	13	2	72
	(d) 033	Gonococcal infection of eye	2	5	14	21
	(e) 034-035	Gonococcal infection of other sites	12	2	1	15
A 12	040	Typhoid fever	12	10	7	29
A 13	(a) 041	Paratyphoid fever A, B or C . . . . .	..	..	..	..
	(b) 042	Other salmonella infections . . . . .	..	..	..	..
A 14	043	Cholera . . . . .	..	..	..	..
A 15	044	Brucellosis (undulant fever) . . . . .	..	..	..	..
A 16	(a) 045	Bacillary dysentery	91	65	24	180
	(b) 046	Amoebiasis	298	149	90	537
	(c) 047-048	Other protozoal and unspecified forms of dysentery	1,632	948	887	3,467
A 17	050	Scarlet fever . . . . .	..	..	..	..
A 18	051	Streptococcal sore throat	51	40	22	113
A 19	052	Erysipelas	4	3	8	15
A 20	053	Septicaemia and pyaemia	3	1	1	5
A 21	055	Diphtheria	29	52	213	294
A 22	056	Whooping Cough	17	21	1,385	1,423
A 23	057	Meningococcal infections . . . . .	..	..	..	..
A 24	058	Plague . . . . .	..	..	..	..
A 25	060	Leprosy	265	65	7	337
A 26	(a) 061	Tetanus of the new-born . . . . .	..	..	1	1
	(b) —	Tetanus, other forms	2	..	3	5
A 27	062	Anthrax . . . . .	..	..	..	..
A 28	080	Acute Poliomyelitis . . . . .	..	..	1	1
A 29	082	Acute infectious encephalitis . . . . .	..	..	..	..
<i>Carried forward</i> ..			9,733	3,709	2,913	16,355

The headings are taken from the Intermediate List of 150 Causes for Tabulation of Morbidity and Mortality as published in the "Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death" (Sixth Revision, 1948).

Reference should be made to the Detailed List of the Diseases published on pages 45 to 321 of the above Manual whenever there is any doubt about the entry in the list.

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	9,733	3,709	2,913	16,355
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)				
A 30	081	} Late effects of acute poliomyelitis and acute infectious encephalitis				
	083		1	4	20	25
A 31	084	Smallpox				
A 32	085	Measles	55	39	795	889
A 33	091	Yellow fever				
A 34	092	Infectious hepatitis	44	20	21	85
A 35	094	Rabies				
A 36	(a) 100	Louse-borne epidemic typhus				
	(b) 101	Flea-borne endemic typhus (murine)	1	..	..	1
	(c) 104	Tick-borne epidemic typhus				
	(d) 105	Mite-borne typhus				
	(e) 102-103 106-108	} Other and unspecified typhus				
A 37	(a) 110	Vivax malaria (benign tertian)	1,938	766	907	3,611
	(b) 111	Malariae malaria (quartan)	32	14	9	55
	(c) 112	Falciparum malaria (malignant tertian)	2,207	743	941	3,891
	(d) 114	Mixed malaria infections	58	10	15	83
	(e) 115	Blackwater fever				
	(f) 113	} Other and unspecified forms of malaria	28,314	15,549	18,131	61,994
A 38	(a) 116-117	Schistosomiasis vesical (<i>S. haematobium</i>)				
	(b) 123.0	Schistosomiasis intestinal (<i>S. Mansoni</i>)				
	(c) 123.1	Schistosomiasis Pulmonary (<i>S. japonicum</i>)				
	(d) 123.2	Other and unspecified Schistosomiasis				
A 39	(e) 123.3	Hydatid disease .. .. .	..	1	..	1
A 40	(a) 125	Onchocerciasis				
	(b) 127	Loiasis				
	(c) —	Filariasis (bancrofti)	92	72	1	165
	(d) —	Other filariasis	87	62	4	153
A 41	(e) 129	Ankylostomiasis	5,254	3,684	5,410	14,348
A 42	(a) 126	Tape worm (infestation) and other cestode infestation	25	6	20	51
	(b) 130.0	Ascariasis	15,945	14,820	54,788	85,553
	(c) 130.3	Guinea worm (dracunculosis)				
	(d) 124	Other trematode infestation	10	2	13	25
	(e) 128	Trichiniasis	6	3	40	49
	(f) 130.1-130.2	Other diseases due to helminths	1,700	1,587	5,912	9,199
A 43	(g) 036	Chancroid	36	1	..	37
	(h) 037	Lymphogranuloma venereum	6	..	..	6
	(i) 038	Granuloma inguinale, venereal	3	..	..	3
	(j) 039	Other and unspecified venereal diseases	86	23	19	128
	(k) 049	Food poisoning infection and intoxication	36	26	2	64
	(l) 059	Tularaemia				
	(m) 063	Gas gangrene				
	(n) 064	(a) Glanders				
		(b) Melioidosis				
		(c) Other bacterial diseases				
	(o) 070	Vincent's infection				
	(p) 071	Relapsing fever				
	(q) 072	Leptospirosis icterohaemorrhagica (Weil's disease)				
	(r) 073	Yaws	9,272	7,422	8,785	25,479
	(s) 086	Rubella				
	(t) 087	Chickenpox	552	170	547	1,269
	(u) 088	Herpes Zoster	598	198	118	914
	(v) 089	Mumps	459	169	585	1,213
	(w) 090	Dengue .. .. .	..	1	2	3
	(x) 093	Glandular fever	4	3	7	14
	(y) 095	Trachoma	127	235	10	372
	(z) 096.7	Sandfly fever				
	(aa) 120	Leishmaniasis				
		<i>Carried forward</i> ..	76,681	49,339	100,015	226,035

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	76,681	49,339	100,015	226,035
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)				
	(v) 121	(a) Trypanosomiasis gambiensis				
		(b) Trypanosomiasis rhodesiensis				
		(c) Other and unspecified trypanosomiasis				
	(w) 131	Dermatophytosis	1,971	1,179	1,215	4,365
	(x) 135	Scabies	18,138	11,457	28,836	58,431
	(y) 054, 074 096.1-096.6 096.8, 096.9 122 132-134 136-138	All other diseases classified as infective and parasitic	4,773	2,535	2,744	10,052
		II.—NEOPLASMS				
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx	36	21	1	58
A 45	150	Malignant neoplasm of oesophagus	4	1	..	5
A 46	151	Malignant neoplasm of stomach	18	8	..	26
A 47	(a) 152	Malignant neoplasm of small intestine, including duodenum .. .. ..	..	1	..	1
	(b) 153	Malignant neoplasm of large intestine, except rectum	3	3	..	6
A 48	154	Malignant neoplasm of rectum	3	3	..	6
A 49	161	Malignant neoplasm of larynx	3	..	..	3
A 50	162-163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	3	..	..	3
A 51	170	Malignant neoplasm of breast .. ..	..	21	..	21
A 52	171	Malignant neoplasm of cervix uteri .. ..	..	50	..	50
A 53	172-174	Malignant neoplasm of other and unspeci- fied parts of uterus .. .. ..	..	1	..	1
A 54	177	Malignant neoplasm of prostate .. ..	..	..	..	..
A 55	190-191	Malignant neoplasm of skin	15	5	..	20
A 56	196-197	Malignant neoplasm of bone and connective tissue	1	..	..	1
A 57	(a) 155-156	Malignant neoplasm of liver	4	1	..	5
	(b) 157	Malignant neoplasm of pancreas .. ..	..	..	..	..
	(c) 158	Malignant neoplasm of peritoneum .. ..	..	..	..	..
	(d) 159	Malignant neoplasm of unspecified digestive organs	3	..	..	3
	(e) 175-176	Malignant neoplasm of other and unspeci- fied female genital organs .. ..	..	9	..	9
	(f) 178-179	Malignant neoplasm of other and unspeci- fied male genital organs	6	..	..	6
	(g) 180-181	Malignant neoplasm of kidney, bladder and other urinary organs .. .. ..	..	..	..	..
	(h) 160 164-165 192-195 198-199	Malignant neoplasm of all other and unspecified sites	137	66	5	208
A 58	204	Leukaemia and Aleukaemia .. ..	..	..	..	..
A 59	(a) 200	Lymphosarcoma and reticulosarcoma .. ..	..	..	..	..
	(b) 201	Hodgkin's disease	1	1	..	2
	(c) 202-203	Other neoplasm of lymphatic and haemato- poietic system	3	1	1	5
	(d) 205	Mycosis fungoides	197	118	94	409
A 60	(a) 210-211	Benign neoplasm of buccal cavity, pharynx and digestive system	43	25	1	69
	(b) 217	Benign neoplasm of other female genital organs .. .. ..	..	9	..	9
		<i>Carried forward</i> ..	102,043	64,854	132,912	299,809

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	102,043	64,854	132,912	299,809
		II.—NEOPLASMS—(cont.)				
(c)	218	Benign neoplasm of other male genital organs	24	..	1	25
(d)	212-216	Benign neoplasm of other and unspecified organs and tissue	165	117	19	301
(e)	230					
(f)	233-235	Neoplasm of unspecified nature of other female genital organs	1	..	..	1
(g)	231-232 236-239	Neoplasm of unspecified nature of other unspecified organs	213	101	40	354
		III.—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES				
		AND				
		IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS				
A 61	250-251	Nontoxic goitre	52	249	2	303
A 62	252	Thyrotoxicosis with or without goitre ..	26	144	1	171
A 63	260	Diabetes mellitus	1,336	792	12	2,140
A 64	(a) 280	Beri Beri	1,902	1,943	265	4,110
	(b) 281	Pellagra	2	2	..	4
	(c) 282	Scurvy	8	6	..	21
	(d) 283-284	Rickets .. .. .	..	..	46	46
	(e) 285	Osteomalacia	3	..	..	3
	(f) 286.0	(a) Sprue	24	21	..	45
	286.5	(b) Malnutrition	2,301	3,516	4,481	10,298
		Kwashiokor .. .. .	..	..	4	4
	286.1-286.4	(c) Other deficiency states	5,783	7,072	3,781	16,636
A 65	(a) 286.6 290	Pernicious and other hyperchromic anaemias	90	140	37	267
	(b) 291	Iron deficiency anaemias (hypochromic) ..	6,448	11,337	3,382	21,167
	(c) 292-293	Other specified and unspecified anaemias ..	18,638	38,161	11,617	68,416
A 66	(a) 241	Asthma	12,152	8,082	7,373	27,607
	(b) 240 242-245	Angioneurotic oedema, urticaria and other allergic disorders	3,323	2,723	1,646	7,692
	(c) 253	Myxoedema and cretinism .. .. .	..	3	..	3
	(d) 254	Other diseases of thyroid gland	54	88	15	157
	(e) 270	Disorders of pancreatic internal secretion other than diabetes mellitus .. .. .	..	..	..	..
	(f) 271	Diseases of parathyroid gland .. .. .	..	2	..	2
	(g) 272	Diseases of pituitary gland .. .. .	..	..	..	..
	(h) 273	Diseases of thymus gland .. .. .	..	..	..	..
	(i) 274	Diseases of adrenal gland	1	..	..	1
	(j) 275-277	Other diseases of endocrine glands	11	14	7	32
	(k) 288	Gout	76	89	15	180
	(l) 287, 289	Other metabolic diseases	458	435	142	1,035
	(m) 294	Polycythemia .. .. .	..	..	..	..
	(n) 295	Haemophilia	1	..	3	4
	(o) 296	Purpura and other haemorrhagic conditions ..	2	1	4	7
	(p) 297	Agranulocytosis .. .. .	..	2	..	2
	(q) 298	Diseases of spleen	79	48	37	164
	(r) 299	Other diseases of blood and blood-forming organs	17	26	12	55
		<i>Carried forward</i> ..	155,233	139,968	165,861	461,062

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	155,233	139,968	165,861	461,062
		V.—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS				
A 67	(a) 300	Schizophrenic disorders (dementia praecox)	3	1	..	4
	(b) 301	Maniac-depressive reaction				
	(c) 302	Involitional melancholia				
	(d) 303	Paranoia and paranoid states				
	(e) 304	Senile psychoses	17	21	..	38
	(f) 305-309	Other and unspecified psychoses	13	17	1	31
A 68	(a) 311	Hysterical reaction	53	110	3	166
	(b) 314	Neurotic-depressive reaction	120	121	1	242
	(c) 322	Alcoholism	849	10	..	859
	(d) 323	Other drug addiction	259	14	..	273
	(e) 310					
	312-313	Other psychoneuroses and disorders of personality	57	130	3	190
	315-321					
	324					
	326					
A 69	325	Mental deficiency	41	17	19	77
		VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS				
A 70	(a) 331	Cerebral haemorrhage	1	1	1	3
	(b) 332	Cerebral embolism and thrombosis	7	2	..	9
	(c) 330	Other vascular lesions affecting central nervous system	2	3	..	5
	333-334					
A 71	340	Non-meningococcal meningitis				
A 72	345	Multiple sclerosis				
A 73	353	Epilepsy	386	216	127	729
A 74	(a) 370	Conjunctivitis and ophthalmia	27,523	17,416	24,229	69,168
	(b) 371-379	Other inflammatory diseases of eye	3,029	1,999	1,873	6,901
A 75	385	Cataract	782	583	28	1,393
A 76	387	Glaucoma	71	53	2	126
A 77	(a) 390	Otitis externa	7,341	4,196	11,289	22,826
	(b) 391-393	Otitis media and mastoiditis	4,854	3,075	8,656	16,585
	(c) 394	Other inflammatory diseases of ear	3,613	2,432	6,450	12,495
A 78	(a) 380-384	All other diseases and conditions of eye	11,522	5,588	3,884	20,994
	386, 388					
	389					
	(b) 342					
	(c) 343					
	(d) 350					
	(e) 352					
	(f) 356					
	(g) 357					
	(h) 366					
	(i) 367	Other diseases of spinal cord .. .. .	..	2	..	2
	(j) 369	Other and unspecified forms of neuralgia and neuritis	39,100	32,701	3,019	74,820
	(k) 341, 344	Other diseases of cranial nerves	21	11	1	33
	351, 354	Diseases of peripheral autonomic nervous system	139	366	16	521
	355					
	360, 365	All other diseases of the nervous system and sense organs	2,410	1,741	95	4,246
	368					
	395-398					
		VII.—DISEASES OF THE CIRCULA- TORY SYSTEM.				
A 79	(a) 400	Rheumatic fever without mention of heart involvement	567	362	7	936
	(b) 401	Rheumatic fever with heart involvement	14	9	1	24
	(c) 402	Chorea .. .. .	..	..	3	3
		<i>Carried forward</i> ..	258,249	211,272	225,610	695,131

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	258,249	211,272	225,610	695,131
		VII.—DISEASES OF THE CIRCULATORY SYSTEM—(cont.)				
A 80	(a) 410-413	Diseases of valves specified as rheumatic ..	11	8	1	20
	(b) 414	Other endocarditis specified as rheumatic ..				
	(c) 415	Other myocarditis specified as rheumatic ..	2	1	..	3
	(d) 416	Other heart disease specified as rheumatic ..	10	19	10	39
A 81	(a) 420	Arteriosclerotic heart disease, including coronary disease	12	1	..	13
	(b) 421	Chronic endocarditis not specified as rheumatic	10	33	..	43
	(c) 422	Other myocardial degeneration	79	49	2	130
A 82	(a) 430	Acute and subacute endocarditis	1	..	..	1
	(b) 431	Acute myocarditis	67	22	4	93
	(c) 432	Acute pericarditis	26	3	..	29
	(d) 433	Functional disease of heart	388	190	40	618
	(e) 434	Other and unspecified diseases of heart ..	695	519	42	1,256
A 83	440-443	Hypertension with heart disease	106	117	..	223
A 84	444-447	Hypertension without mention of heart ..	1,618	1,151	5	2,774
A 85	(a) 450	General arteriosclerosis	5	2	..	7
	(b) 451	Aortic aneurysm specified as non-syphilitic and dissecting aneurysm	2	..	..	2
	(c) 452	Other aneurysm, except of heart and aorta ..	1	..	..	1
	(d) 453	Peripheral vascular disease .. .. .	..	2	..	2
	(e) 454	Arterial embolism and thrombosis	2	..	..	2
	(f) 455	Gangrene of unspecified cause	5	1	..	6
	(g) 456	Other diseases of arteries	41	28	..	69
A 86	(a) 460, 462	Varicose veins	217	292	..	509
	(b) 461	Haemorrhoids	2,701	1,087	45	3,833
	(c) 463-464	Phlebitis and thrombophlebitis	32	22	7	61
	(d) 465	Pulmonary embolism and infarction .. ..	..	1	..	1
	(e) 466	Other venous embolism and thrombosis ..	..	1	..	1
	(f) 467	Other diseases of circulatory system	116	164	10	290
	(g) 468	(a) Adenitis	2,938	1,435	2,540	6,913
		(b) Lymphadenitis	340	181	193	714
		(c) Other diseases of lymph nodes and lymph channels	63	48	21	132
		VIII.—DISEASES OF THE RESPIRATORY SYSTEM				
A 87	(a) 470	Acute nasopharyngitis (common cold) ..	51,357	33,209	56,775	141,341
	(b) 471	Acute sinusitis	939	686	137	1,762
	(c) 472	Acute pharyngitis	7,528	6,111	5,995	19,634
	(d) 473	Acute tonsillitis	10,160	8,301	13,784	32,245
	(e) 474	Acute laryngitis and tracheitis	2,255	948	1,389	4,592
	(f) 475	Other acute upper respiratory infections ..	855	552	1,114	2,521
A 88	(a) 480	Influenza with pneumonia	206	222	214	642
	(b) 481	Influenza with other respiratory manifesta- tions, and influenza unqualified	45,309	22,087	28,899	96,295
	(c) 482	Influenza with digestive manifestations, but without respiratory symptoms	3,045	1,626	2,168	6,839
	(d) 483	Influenza with nervous manifestations, but without digestive or respiratory symptoms ..	1,205	406	493	2,104
A 89	490	Lobar pneumonia	223	113	129	465
A 90	491	Broncho-pneumonia	131	328	2,402	2,861
A 91	492-493	Primary atypical, other and unspecified pneumonia	317	104	417	838
A 92	500	Acute bronchitis	23,466	14,714	39,118	77,298
A 93	(a) 501	Bronchitis unqualified	71,685	47,445	101,393	220,523
	(b) 502	Chronic bronchitis	7,478	5,180	3,108	15,766
A 94	510	Hypertrophy of tonsils and adenoids ..	28	32	171	231
A 95	(a) 518	Empyema	7	3	..	10
	(b) 521	Abscess of lung	7	2	1	10
A 96	519	Pleurisy	152	51	3	206
		<i>Carried forward</i> ..	494,090	358,768	486,240	1,339,098

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	494,090	358,768	486,240	1,339,098
		VIII.—DISEASES OF THE RESPIRATORY SYSTEM—(cont.)				
A 97	(a) 517	Other diseases of upper respiratory tract ..	318	186	340	844
	(b) 520	Spontaneous pneumothorax ..				
	(c) 522	Pulmonary congestion and hypostasis ..				
	(d) 525	Other chronic interstitial pneumonia ..				
	(e) 523	Pneumoconiosis				
	(f) 526	Bronchiectasis	306	160	138	604
	(g) 511-516 524 527	All other respiratory diseases	2,729	2,159	2,785	7,673
		IX.—DISEASES OF THE DIGESTIVE SYSTEM				
A 98	(a) 530	Dental caries	9,496	5,876	6,562	21,934
	(b) 531-535	(a) Gingivitis	502	463	380	1,345
		(b) Pyorrhoea	986	816	216	2,018
		(c) Other diseases of teeth and supporting structures	1,507	785	693	2,985
A 99	540	Ulcer of stomach	921	482	23	1,426
A 100	541	Ulcer of duodenum	139	37	5	181
A 101	543	Gastritis and duodenitis	21,771	15,103	5,587	42,461
A 102	550-553	Appendicitis	233	104	36	373
A 103	(a) 560	Hernia of abdominal cavity without mention of obstruction	537	37	92	666
	(b) 561	Hernia of abdominal cavity with obs- truction	9	1	..	10
	(c) 570	(a) Intussusception .. .. .	..	1	..	1
		(b) Volvulus .. .. .	..	1	..	1
		(c) Other intestinal obstruction	4	1	26	31
A 104	(a) 571.0	Gastro-enteritis and colitis between 4 weeks and 2 years .. .. .	..	..	20,610	20,610
	(b) 571.1	Gastro-enteritis and colitis, ages 2 years and over	17,425	11,076	16,362	44,863
	(c) 572	Chronic enteritis and ulcerative colitis ..	126	62	19	207
A 105	(a) 581.0	Cirrhosis of liver without mention of alcoholism	152	56	1	209
	(b) 581.1	Cirrhosis of liver with alcoholism	20	5	..	25
A 106	(a) 584	Cholelithiasis	3	3	..	6
	(b) 585	Cholecystitis without mention of calculi	19	19	..	38
A 107	(a) 536	Stomatitis	4,088	4,070	7,659	15,817
	(b) 538	Other diseases of buccal cavity	101	86	110	297
	(c) 539	(a) Functional disorders of oesophagus ..	2	2	5	9
		(b) Stricture or obstruction of oesophagus	10	3	1	14
	(d) 544	Disorders of function of stomach	11,496	9,857	7,595	28,948
	(e) 545	Other diseases of stomach and duodenum	2,773	2,928	1,353	7,054
	(f) 573	(a) Constipation	26,984	17,535	16,859	61,378
		(b) Other functional disorders of intestines	3,247	2,381	2,140	7,768
	(g) 574	Anal fissure and fistula	137	14	7	158
	(h) 575	Abscess of anal and rectal regions	113	5	13	131
	(i) 576	Peritonitis	6	1	..	7
	(j) 578	Other diseases of intestines and peritoneum	43	16	35	94
	(k) 580	(a) Acute yellow atrophy of liver	6	..	..	6
		(b) Degeneration of liver				
		(c) Hepatitis	436	386	66	888
	(l) 583	Other diseases of liver	77	43	12	132
	(m) 586	Other diseases of gall-bladder and biliary ducts	80	29	20	129
	(n) 587	Diseases of pancreas	3	1	..	4
	(o) 537, 542 577, 582	Other diseases of digestive system	5,815	6,138	3,346	15,299
		<i>Carried forward</i> ..	606,710	439,695	579,336	1,625,741

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	606,710	439,695	579,336	1,625,741
		X.—DISEASES OF THE GENITO- URINARY SYSTEM				
A 108	590	Acute nephritis	447	301	109	857
A 109	(a) 591	Nephritis with oedema, including nephrosis	99	92	40	231
	(b) 592	Chronic nephritis	227	159	34	420
	(c) 593	Nephritis not specified as acute or chronic	1,173	700	355	2,228
	(d) 594	Other renal sclerosis	7	2	1	10
A 110	600	Infections of kidney	372	416	57	845
A 111	(a) 602	Calculi of kidney and ureter	52	9	1	62
	(b) 604	Calculi of other parts of urinary system	43	4	3	50
A 112	610	Hyperplasia of prostate	20	..	..	20
A 113	620-621	Diseases of breast .. .. .	..	437	9	446
A 114	(a) 603	Other diseases of kidney and ureter	448	227	54	729
	(b) 605	Cystitis	1,681	1,448	238	3,367
	(c) 606	Other diseases of bladder	134	64	32	230
	(d) 608	Stricture of urethra	249	17	1	267
	(e) 609	Other diseases of urethra	1,427	330	84	1,841
	(f) 612	Other diseases of prostate	74	..	..	74
	(g) 613	Hydrocele	212	..	23	235
	(h) 614	Orchitis and epididymitis	549	..	32	581
	(i) 617	Other diseases of male genital organs	664	..	82	746
	(j) 622	Acute salpingitis and oophoritis .. .. .	..	198	..	198
	(k) 626	Other diseases of ovary and fallopian tube .. .. .	..	131	..	131
	(l) 626	Diseases of parametrium and pelvi- peritoneum (female) .. .. .	..	1	..	1
	(m) 630	Infective disease of uterus, vagina and vulva .. .. .	..	727	50	777
	(n) 633	Other diseases of uterus .. .. .	..	969	..	969
	(o) 634	Disorders of menstruation .. .. .	..	12,249	..	12,249
	(p) 637	Other diseases of female genital organs .. .. .	..	1,749	10	1,759
	(q) 601	All other diseases of the genito-urinary system	1,269	1,188	315	2,772
	607, 611					
	615-616					
	623-624					
	631-632 635-636					
		XI.—DELIVERIES AND COMPLICA- TIONS OF PREGNANCY, CHILD- BIRTH AND THE PUERPERIUM				
A 115	(a) 640	Pyelitis and pyelonephritis of pregnancy .. .. .	..	302	..	302
	(b) 641	Other infections of genito-urinary tract during pregnancy .. .. .	..	..	..	..
	(c) 681	Sepsis of childbirth and the puerperium .. .. .	..	15	..	15
	(d) 682	Puerperal phlebitis and thrombosis .. .. .	..	..	..	..
	(e) 684	Puerperal pulmonary embolism .. .. .	..	..	..	..
A 116	(a) 642	(a) Albuminuria of pregnancy .. .. .	..	777	..	777
		(b) Eclampsia of pregnancy .. .. .	..	49	..	49
		(c) Hyperemesis gravidarum .. .. .	..	1,060	..	1,060
		(d) Acute yellow atrophy of liver .. .. .	..	..	..	..
		(e) Other toxæmias of pregnancy .. .. .	..	341	..	341
	(b) 652	Abortion with toxæmia, without mention of sepsis .. .. .	..	43	..	43
	(c) 685	Puerperal eclampsia .. .. .	..	6	..	6
	(d) 686	Other forms of puerperal toxæmia .. .. .	..	3	..	3
A 117	(a) 643	Placenta prævia .. .. .	..	1	..	1
	(b) 644	Other hæmorrhage of pregnancy .. .. .	..	101	..	101
		<i>Carried forward</i> ..	615,857	463,811	580,866	1,660,534

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	615,857	463,811	580,866	1,660,534
		XI.—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILD-BIRTH AND THE PUERPERIUM—(cont.)				
	(c) 670	Delivery complicated by placenta praevia or antepartum haemorrhage .. ..	..	6	..	6
	(d) 671	Delivery complicated by retained placenta .. ..	..	9	..	9
	(e) 672	Delivery complicated by other postpartum haemorrhage .. ..	..	4	..	4
A 118	650	Abortion without mention of sepsis or toxæmia .. ..	..	1,410	..	1,410
A 119	651	Abortion with sepsis .. ..	..	36	..	36
A 120	(a) 645	Ectopic pregnancy .. ..	..	29	..	29
	(b) 646	Anaemia of pregnancy .. ..	..	5,411	..	5,411
	(c) 683	Pyrexia of unknown origin during the puerperium .. ..	..	112	..	112
	(d) 688.1	Puerperal psychoses .. ..	..	1	..	1
	(e) 689	Mastitis and other disorders of lactation .. ..	..	334	..	334
	(f) 647-649 } 673-680 } 687 } 688.0 } 688.2-688.3 }	Other complications of pregnancy, child-birth and the puerperium .. ..	..	8,025	..	8,025
	(g) 660	Delivery without complications .. ..	..	4,695	..	4,695
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE				
		AND				
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT				
A 121	(a) 690	Boil and carbuncle	16,419	8,026	17,315	41,760
	(b) 691-693	Cellulitis and abscess	19,975	10,861	15,671	46,507
	(c) 694-698	Other infections of skin and subcutaneous tissue	24,322	12,859	20,000	57,181
A 122	(a) 720	Acute arthritis due to pyogenic organisms	18	10	..	28
	(b) 721	Acute nonpyogenic arthritis	118	100	..	218
	(c) 722	Rheumatoid arthritis and allied conditions	381	260	9	650
	(d) 723-725	Arthritis specified and unspecified	5,310	3,893	142	9,345
A 123	(a) 726	Muscular rheumatism	8,826	4,234	196	13,256
	(b) 727	Rheumatism unspecified	9,254	6,532	411	16,197
A 124	730	Osteomyelitis and periostitis	186	112	75	373
A 125	(a) 737	Ankylosis of joint	2	3	2	7
	(b) 745-749	Other acquired musculoskeletal deformities	2	4	9	15
A 126	(a) 715	Chronic ulcer of skin (including tropical ulcer)	27,701	12,482	21,981	62,164
	(b) 700-714 } 716 }	All other diseases of skin	38,059	23,137	30,421	91,617
	(c) 731-736 } 738-744 }	All other diseases of musculoskeletal system	2,558	1,663	365	4,586
		XIV.—CONGENITAL MALFORMATIONS				
A 127	751	Spina bifida and meningocele .. ..	..	..	1	1
A 128	754	Congenital malformations of circulatory system	1	..	11	12
A 129	(a) 750	Monstrosity .. ..	..	..	4	4
	(b) 752	Congenital hydrocephalus .. ..	..	..	..	..
	(c) 753	Other congenital malformations of nervous system and sense organs .. ..	..	..	..	..
		<i>Carried forward</i> ..	768,989	568,059	687,479	2,024,527

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	768,989	568,059	687,479	2,024,527
		XIV.—CONGENITAL MALFORMATIONS—(cont.)				
	(d) 755	Cleft palate and harelip	14	6	98	118
	(e) 756	(a) Congenital hypertrophic pyloric stenosis .. .. .	..	..	2	2
		(b) Imperforate anus .. .. .	..	..	7	7
		(c) Other congenital malformations of digestive system .. .. .	..	..	13	13
	(f) 757	Congenital malformations of genito-urinary system .. .. .	..	..	1	1
	(g) 758	Congenital malformations of bone and joint .. .. .	..	..	4	4
	(h) 759	Other and unspecified congenital malformations, not elsewhere classified	4	3	24	31
		XV.—CERTAIN DISEASES OF EARLY INFANCY				
A 130	(a) 760	Intracranial and spinal injury at birth .. .. .	..	..	..	..
	(b) 761	Other birth injury .. .. .	..	..	1	1
A 131	762	Postnatal asphyxia and atelectasis .. .. .	..	..	..	..
A 132	(a) 764	Diarrhoea of newborn .. .. .	..	..	806	806
	(b) 765	Ophthalmia neonatorum .. .. .	..	..	5	5
	(c) 763	Pneumonia of newborn .. .. .	..	..	26	26
	(d) 766	Pemphigus neonatorum .. .. .	..	..	..	..
	(e) 767	Umbilical sepsis .. .. .	..	..	158	158
	(f) 768	Other sepsis of newborn .. .. .	..	..	1	1
A 133	770	Haemolytic disease of newborn .. .. .	..	..	..	..
A 134	769	All other defined diseases of early infancy .. .. .	..	..	21	21
	771-772		..	..	..	..
A 135	(a) 773	Congenital debility .. .. .	..	..	30	30
	(b) 774	Premature birth .. .. .	..	..	69	69
	(c) 775-776	Other ill-defined diseases peculiar to early infancy and immaturity unqualified .. .. .	..	..	182	182
		XVI.—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS				
A 136	794	Senility without mention of psychoses	3,042	2,421	..	5,463
A 137	(a) 780	Infantile convulsions .. .. .	..	..	151	151
	(b) 788.8	Pyrexia of unknown origin	19,241	11,422	19,935	50,598
	(c) 793	Observation, without need for further medical care	5,190	1,951	656	7,797
	(d) 781-787 789-792 795 788.1-788.7 788.9	(a) Malingering	129	295	134	558
		(b) Sudden death (cause unknown) .. .. .	..	..	..	..
		(c) Found dead (cause unknown) .. .. .	..	..	..	..
		(d) Other ill-defined and unknown causes of morbidity and mortality	2,893	2,069	1,276	6,238
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE				
		"E" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)				
AE 138	E 810-E 835	Motor vehicle accidents	2,856	903	697	4,456
AE 139	(a) E 800-E 802	Railway accidents	19	1	..	20
	(b) E 850-E 858	Water transport accidents	7	..	..	7
	(c) E 860-E 866	Aircraft accidents .. .. .	..	..	..	..
	(d) E 840-E 845	Other transport accidents	1,404	619	822	2,845
		<i>Carried forward</i> ..	803,788	587,749	712,598	2,104,135

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	803,788	587,749	712,598	2,104,135
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		"E" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
AE 140	(a) E 870	Accidental poisoning by morphia and other opium derivatives	2	..	..	2
	(b) E 874	Accidental poisoning by other analgesic and soporific drugs .. .. .	..	..	..	..
	(c) E 878	Accidental poisoning by other and unspeci- fied drugs	3	2	2	7
	(d) E 883	Accidental poisoning by corrosive aro- matics, acids and caustic alkalies ..	7	12	4	23
	(e) E 884	Accidental poisoning by mercury and its compounds .. .. .	..	..	..	..
	(f) E 885	Accidental poisoning by lead and its compounds .. .. .	..	..	..	..
	(g) E 886	Accidental poisoning by arsenic and anti- mony and their compounds	4	..	1	5
	(h) E 888	Accidental poisoning by other and unspeci- fied solid or liquid substances	7	7	8	22
	(i) E 890-E 895	Accidental poisoning by gases and vapours	2	..	..	2
	(j) E 871-E 873 E 875-E 877 E 879-E 882 E 887	Other accidental poisoning	49	12	15	76
AE 141	E 900-E 904	Accidental falls	24,195	9,863	18,000	52,058
AE 142	E 912	Accident caused by machinery	451	128	74	653
AE 143	E 916	Accident caused by fire and explosion of combustible material	398	173	347	918
AE 144	E 917-E 918	Accident caused by hot substance, corrosive liquid, steam and radiation	1,002	663	1,325	2,990
AE 145	E 919	Accident caused by firearm	127	55	76	258
AE 146	E 929	Accidental drowning and submersion ..	2	1	3	6
AE 147	(a) E 913	Accidents caused by cutting or piercing instruments	19,484	7,199	10,115	36,798
	(b) E 914	Accidents caused by electric current ..	7	1	1	9
	(c) E 920	Foreign body entering eye and adnexa ..	861	347	451	1,659
	(d) E 923	Foreign body entering other orifice ..	817	422	962	2,201
	(e) E 925	Accidental mechanical suffocation ..	..	..	..	..
	(f) E 926	Lack of care of infants under 1 year of age	..	..	1	1
	(g) E 927	Accidents caused by bites and stings of venomous animals and insects	4,221	1,931	2,079	8,231
	(h) E 928	Other accidents caused by animals ..	2,642	1,327	1,799	5,768
	(i) E 931	Excessive heat	1	1	..	2
	(j) E 932	Excessive cold .. .. .	..	..	..	..
	(k) E 933	Hunger, thirst and exposure .. .. .	..	..	..	..
	(l) E 934	Cataclysm .. .. .	..	..	..	..
	(m) E 935	Lightning	10	1	..	11
	(n) E 936	(a) Accidents in mines and quarries ..	249	43	..	292
		(b) Agricultural and forestry accidents ..	269	103	82	454
		(c) Accidental injury by crushing or land- slide	531	102	121	754
		(d) Other and unspecified accidents ..	3,322	1,009	1,617	5,948
	(o) E 940	Generalized vaccinia following vaccination	327	97	890	1,314
	(p) E 941-E 942	Other complications of smallpox vac- cination	1	2	45	48
	(q) E 950-E 953 E 955-E 959	Accidents due to medical or surgical intervention .. .. .	..	..	..	..
	(r) E 954	Anaesthetic accidents .. .. .	..	..	..	..
		<i>Carried forward</i> ..	862,779	611,250	750,616	2,224,645

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	862,779	611,250	750,616	2,224,645
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		"E" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
	(s) E910-E911 } E 915 } E921-E922 } E924-E930 } E943-E946 } E960-E965 }	All other accidental causes	3,574	950	1,502	6,026
AE 148	(a) E 970	Suicide and self-inflicted injury by anal- gesic and soporific substances				
	(b) E 971	Suicide and self-inflicted injury by other solid and liquid substances	1	3	..	4
	(c) E 972	Suicide and self-inflicted injury by gases in domestic use				
	(d) E 973	Suicide and self-inflicted injury by other gases				
	(e) E 974	Suicide and self-inflicted injury by hanging or strangulation				
	(f) E 975	Suicide and self-inflicted injury by submer- sion (drowning)				
	(g) E 976	Suicide and self-inflicted injury by firearms and explosives				
	(h) E 977	Suicide and self-inflicted injury by cutting or piercing instruments	2	..	..	2
	(i) E 978	Suicide and self-inflicted injury by jumping from high place				
	(j) E 979	Suicide and self-inflicted injury by other and unspecified means	1	..	..	1
AE 149	(a) E 980	Nonaccidental poisoning by another person ..	1	..	..	1
	(b) E 981	Assault by firearms and explosive	20	3	1	24
	(c) E 982	Assault by cutting or piercing instruments ..	755	267	69	1,091
	(d) E 983	Assault by other means	4,359	1,962	479	6,800
	(e) E 984	Injury by intervention of police	3	5	..	8
	(f) E 985	Execution (legal)	10	..	..	10
AE 150	E 990-E 999	Injury resulting from operations of war ..				
		"N" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONING, AND VIOLENCE (NATURE OF INJURY)				
AN 138	N 800-N 804	Fracture of skull	3	..	1	4
AN 139	N 805-N 809	Fracture of spine and trunk	4	4	4	12
AN 140	N 810-N 829	Fracture of limbs	485	115	205	805
AN 141	N 830-N 839	Dislocation without fracture	81	34	59	174
AN 142	N 840-N 848	Sprains and strains of joints and adjacent muscles	5,185	1,496	1,204	7,885
AN 143	N 850-N 856	Head injury excluding fracture	365	138	226	729
AN 144	N 860-N 869	Internal injury of chest, abdomen and pelvis				
AN 145	N 870-N 908	Laceration and open wounds	12,767	1,219	6,501	23,487
AN 146	N 910-N 929	Superficial injury, contusion and crushing with intact skin surface	5,903	2,666	3,870	12,439
AN 147	N 930-N 936	Effects of foreign body entering through orifice	66	55	116	237
AN 148	N 940-N 949	Burns	1,406	837	1,991	4,234
AN 149	N 960-N 979	Effects of poisons .. .. .	..	..	1	1
AN 150	N950-N959 } N980-N999 }	All other and unspecified effects of external causes	3,021	1,467	1,875	6,363
		TOTAL ..	900,791	625,471	768,720	2,294,982

TABLE 6—(cont.)
OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Nationalities	New Cases All Nationalities (including Europeans)			
	Adult Males	Adult Females	Children under 10 years	Total (A)
Europeans	4,187	2,608	1,789	8,584
Eurasians	4,342	2,956	2,638	9,936
Chinese	350,754	292,472	391,539	1,034,765
Indians	193,964	115,067	132,590	441,621
Malays	328,966	201,197	226,869	757,032
Javanese	13,160	7,556	9,679	30,395
Japanese	1	2	..	3
Others	5,417	3,613	3,616	12,646
TOTAL	900,791	625,471	768,720	2,294,982

The figures in this table are based on the information furnished to the International Health Commission by the various countries and territories in the region of the International Health Commission in 1955. The figures are preliminary and subject to change as more complete information is received. The figures are based on the information furnished to the International Health Commission in 1955. The figures are preliminary and subject to change as more complete information is received.

TABLE 7

OUT-PATIENTS (TRAVELLING DISPENSARIES)

RETURN OF DISEASES FOR THE YEAR 1955

INTERMEDIATE LIST OF 150 CAUSES FOR TABULATION OF MORBIDITY AND MORTALITY—(See footnote)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
I.—INFECTIVE AND PARASITIC DISEASES						
A 1	001-008	Tuberculosis of respiratory system.. ..	158	63	..	221
A 2	010	Tuberculosis of meninges and central system				
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands				
A 4	012-013	Tuberculosis of bones and joints				
A 5	(a) 014	Tuberculosis of skin and subcutaneous cellular tissue				
	(b) 015	Tuberculosis of lymphatic system .. ..	..	..	1	1
	(c) 016	Tuberculosis of genito-urinary system				
	(d) 017	Tuberculosis of adrenal glands				
	(e) 018	Tuberculosis of other organs	1	..	..	1
	(f) 019	Disseminated tuberculosis				
A 6	020	Congenital syphilis				
A 7	(a) 021.0-021.1	Primary syphilis				
	(b) 021.2	Secondary syphilis				
	(c) 021.3	Early syphilis, relapse following treatment..				
	(d) 021.4	Early syphilis (unspecified stage)	8	2	..	10
A 8	024	Tabes dorsalis				
A 9	025	General paralysis of insane				
A 10	(a) 022	Aneurysm of aorta				
	(b) 023	Other cardiovascular syphilis				
	(c) 026	Other syphilis of central nervous system ..				
	(d) 027	Tertiary syphilis				
	(e) 028	Latent syphilis				
	(f) 029	Syphilis unqualified	1	..	..	1
A 11	(a) 030	Acute or unspecified gonorrhoea	209	34	..	243
	(b) 031	Chronic gonococcal infection of genito- urinary system				
	(c) 032	Gonococcal infection of joint	7	2	..	9
	(d) 033	Gonococcal infection of eye				
	(e) 034-035	Gonococcal infection of other sites				
A 12	040	Typhoid fever				
A 13	(a) 041	Paratyphoid fever A, B or C				
	(b) 042	Other salmonella infections				
A 14	043	Cholera				
A 15	044	Brucellosis (undulant fever).. ..				
A 16	(a) 045	Bacillary dysentery	19	17	21	57
	(b) 046	Amoebiasis	4	6	8	18
	(c) 047-048	Other protozoal and unspecified forms of dysentery	1,050	710	1,148	2,908
A 17	050	Scarlet fever				
A 18	051	Streptococcal sore throat	6	8	8	22
A 19	052	Erysipelas				
A 20	053	Septicaemia and pyaemia				
A 21	055	Diphtheria				
A 22	056	Whooping Cough	1	2	242	245
A 23	057	Meningococcal infections				
A 24	058	Plague				
A 25	060	Leprosy	55	6	..	61
A 26	(a) 061	Tetanus of the new-born				
	(b) —	Tetanus, other forms				
A 27	062	Anthrax				
A 28	080	Acute Poliomyelitis				
<i>Carried forward</i> ..			1,519	850	1,428	3,797

The headings are taken from the Intermediate List of 150 Causes for Tabulation of Morbidity and Mortality as published in the "Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death" (Sixth Revision, 1948).

Reference should be made to the Detailed List of the Diseases published on pages 45 to 321 of the above Manual whenever there is any doubt about the entry in the list.

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	1,519	850	1,428	3,797
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)				
A 29	082	Acute infectious encephalitis				
A 30	081	Late effects of acute poliomyelitis and acute				
	083	infectious encephalitis				
A 31	084	Smallpox				
A 32	085	Measles	16	18	257	291
A 33	091	Yellow fever				
A 34	092	Infectious hepatitis				
A 35	094	Rabies				
A 36	(a) 100	Louse-borne epidemic typhus				
	(b) 101	Flea-borne endemic typhus (murine)				
	(c) 104	Tick-borne epidemic typhus				
	(d) 105	Mite-borne typhus				
	(e) 102-103	Other and unspecified typhus				
	106-108					
A 37	(a) 110	Vivax malaria (benign tertian)	18	7	20	45
	(b) 111	Malariae malaria (quartan)	1	..	..	1
	(c) 112	Falci-parum malaria (malignant tertian)	21	13	25	59
	(d) 114	Mixed malaria infections .. ..	..	1	..	1
	(e) 115	Blackwater fever				
	(f) 113	Other and unspecified forms of malaria	27,050	13,855	17,685	58,590
A 38	(a) 123.0	Schistosomiasis vesical (<i>S. haematobium</i>)				
	(b) 123.1	Schistosomiasis intestinal (<i>S. Mansoni</i>)				
	(c) 123.2	Schistosomiasis Pulmonary (<i>S. japonicum</i>)				
	(d) 123.3	Other and unspecified Schistosomiasis				
A 39	125	Hydatid disease				
A 40	(a) 127	Onchocerciasis				
	(b) —	Loiasis				
	(c) —	Filariasis (bancrofti)				
	(d) —	Other filariasis	26	5	5	36
A 41	129	Ankylostomiasis	1,054	769	1,303	3,126
A 42	(a) 126	Tape worm (infestation) and other cestode				
	(b) 130.0	infestation	4	1	11	16
	(c) 130.3	Ascariasis	4,988	4,922	25,640	35,550
	(d) 124	Guinea worm (dracunculosis)				
	(e) 128	Other trematode infestation	3	1	15	19
	(f) 128	Trichiniasis	6	..	..	6
	(g) 130.1-130.2	Other diseases due to helminths	3,496	2,808	14,011	20,315
A 43	(a) 036	Chancroid				
	(b) 037	Lymphogranuloma venereum				
	(c) 038	Granuloma inguinale, venereal				
	(d) 039	Other and unspecified venereal diseases	38	2	2	42
	(e) 049	Food poisoning infection and intoxication				
	(f) 059	Tularaemia				
	(g) 063	Gas gangrene				
	(h) 064	(a) Glanders				
		(b) Melioidosis				
		(c) Other bacterial diseases				
	(i) 070	Vincent's infection				
	(j) 071	Relapsing fever				
	(k) 072	Leptospirosis icterohaemorrhagica (Weil's				
		disease)				
	(l) 073	Yaws	5,179	3,577	5,476	14,232
	(m) 086	Rubella				
	(n) 087	Chickenpox	61	56	291	408
	(o) 088	Herpes Zoster	19	26	17	62
	(p) 089	Mumps	69	76	219	364
	(q) 090	Dengue				
	(r) 093	Glandular fever				
	(s) 095	Trachoma				
	(t) 096.7	Sandfly fever				
	(u) 120	Leishmaniasis				
	(v) 121	(a) Trypanosomiasis gambiensis				
		<i>Carried forward</i> ..	43,568	26,987	66,405	136,960

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	43,568	26,987	66,405	136,960
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)				
		(b) Trypanosomiasis rhodesiensis				
		(c) Other and unspecified trypanosomiasis				
	(w) 131	Dermatophytosis	606	555	1,192	2,353
	(x) 135	Scabies	14,291	8,657	28,852	51,800
	(y) 054, 074					
	096.1-096.6					
	096.8, 096.9	All other diseases classified as infective and parasitic	3,071	4,916	9,128	17,115
	122					
	132-134					
	136-138					
		II.—NEOPLASMS				
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx				
A 45	150	Malignant neoplasm of oesophagus				
A 46	151	Malignant neoplasm of stomach				
A 47	(a) 152	Malignant neoplasm of small intestine, including diodenum				
	(b) 153	Malignant neoplasm of large intestine, except rectum				
A 48	154	Malignant neoplasm of rectum				
A 49	161	Malignant neoplasm of larynx				
A 50	162-163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary				
A 51	170	Malignant neoplasm of breast				
A 52	171	Malignant neoplasm of cervix uteri				
A 53	172-174	Malignant neoplasm of other and unspeci- fied parts of uterus				
A 54	177	Malignant neoplasm of prostate				
A 55	190-191	Malignant neoplasm of skin				
A 56	196-197	Malignant neoplasm of bone and con- nective tissue				
A 57	(a) 155-156	Malignant neoplasm of liver				
	(b) 157	Malignant neoplasm of pancreas				
	(c) 158	Malignant neoplasm of peritoneum				
	(d) 159	Malignant neoplasm of unspecified digestive organs				
	(e) 175-176	Malignant neoplasm of other and unspeci- fied female genital organs				
	(f) 178-179	Malignant neoplasm of other and unspeci- fied male genital organs				
	(g) 180-181	Malignant neoplasm of kidney, bladder and other urinary organs				
	(h) 160					
	164-165	Malignant neoplasm of all other and unspecified sites	3	..	..	3
	192-195					
	198-199					
A 58	204	Leukaemia and Aleukaemia				
A 59	(a) 200	Lymphosarcoma and reticulosarcoma				
	(b) 201	Hodgkin's disease				
	(c) 202-203	Other neoplasm of lymphatic and haemato- poietic system				
	(d) 205	Mycosis fungoides	198	84	110	392
A 60	(a) 210-211	Benign neoplasm of buccal cavity, pharynx and digestive system				
	(b) 217	Benign neoplasm of other female genital organs				
	(c) 218	Benign neoplasm of other male genital organs				
		<i>Carried forward</i> ..	61,737	41,199	105,687	208,623

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	61,737	41,199	105,687	208,623
		II—NEOPLASMS—(cont.)				
(d)	212-216	Benign neoplasm of other and unspecified organs and tissue .. .. .	..	..	1	1
(e)	219-229 230					
(f)	233-235	Neoplasm of unspecified nature of other female genital organs .. .. .	..	..	..	..
(g)	231-232 236-239	Neoplasm of unspecified nature of other unspecified organs	8	3	1	12
		III.—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRI- TIONAL DISEASES				
		AND				
		IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS				
A 61	250-251	Nontoxic goitre .. .. .	..	..	..	..
A 62	252	Thyrotoxicosis with or without goitre ..	..	..	..	..
A 63	260	Diabetes mellitus	39	33	..	72
A 64	(a) 280	Beri Beri	247	289	22	558
	(b) 281	Pellagra .. .. .	..	..	2	2
	(c) 282	Scurvy .. .. .	..	..	1	1
	(d) 283-284	Rickets .. .. .	..	..	37	37
	(e) 285	Osteomalacia .. .. .	..	..	..	..
	(f) 286.0	(a) Sprue	2	2	..	4
	286.5	(b) Malnutrition	1,364	1,034	2,513	4,911
	286.1-286.4	(c) Other deficiency states	1,730	1,513	1,725	4,968
A 65	(a) 290	Pernicious and other hyperchromic anaemias	19	20	28	67
	(b) 291	Iron deficiency anaemias (hypochromic) ..	2,262	3,925	1,958	8,145
	(c) 292-293	Other specified and unspecified anaemias	10,892	18,315	10,004	39,211
A 66	(a) 241	Asthma	2,643	1,677	1,433	5,753
	(b) 240	Anginoeurotic oedema, urticaria and other allergic disorders	130	104	89	323
	(c) 253	Myxoedema and cretinism .. .. .	..	..	..	..
	(d) 254	Other diseases of thyroid gland .. .. .	..	..	..	..
	(e) 270	Disorders of pancreatic internal secretion other than diabetes mellitus	11	7	..	18
	(f) 271	Diseases of parathyroid gland .. .. .	..	..	..	..
	(g) 272	Diseases of pituitary gland .. .. .	..	..	..	..
	(h) 273	Diseases of thymus gland .. .. .	..	..	..	..
	(i) 274	Diseases of adrenal gland .. .. .	..	..	..	..
	(j) 275-277	Other diseases of endocrine glands	3	2	..	5
	(k) 288	Gout	39	16	..	55
	(l) 287, 289	Other metabolic diseases	17	9	5	31
	(m) 294	Polycythemia .. .. .	..	..	..	..
	(n) 295	Haemophilia .. .. .	..	..	..	..
	(o) 296	Purpura and other haemorrhagic conditions	..	..	..	..
	(p) 297	Agranulocytosis .. .. .	..	..	..	..
	(q) 298	Diseases of spleen	95	47	142	284
	(r) 299	Other diseases of blood and blood-forming organs	7	4	18	29
		<i>Carried forward</i> ..	81,245	68,199	123,666	273,110

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	81,245	68,199	123,666	273,110
		V.—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS				
A 67	(a) 300	Schizophrenic disorders (dementia praecox)				
	(b) 301	Maniac-depressive reaction				
	(c) 302	Involitional melancholia				
	(d) 303	Paranoia and paranoid states				
	(e) 304	Senile psychoses	1	..	..	1
	(f) 305-309	Other and unspecified psychoses				
A 68	(a) 311	Hysterical reaction .. ..	..	1	..	1
	(b) 314	Neurotic-depressive reaction				
	(c) 322	Alcoholism				
	(d) 323	Other drug addiction				
	(e) 310					
	312-313	Other psychoneuroses and disorders of personality				
	315-321					
	324					
	326					
A 69	325	Mental deficiency	1	1	2	4
		VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS				
A 70	(a) 331	Cerebral haemorrhage .. ..	..	2	..	2
	(b) 332	Cerebral embolism and thrombosis	1	..	..	1
	(c) 330	Other vascular lesions affecting central nervous system				
	333-334					
A 71	340	Non-meningococcal meningitis				
A 72	345	Multiple sclerosis				
A 73	353	Epilepsy	23	5	2	30
A 74	(a) 370	Conjunctivitis and ophthalmia	7,713	6,483	11,118	25,314
	(b) 371-379	Other inflammatory diseases of eye	869	751	1,391	3,011
A 75	385	Cataract	21	10	..	31
A 76	387	Glaucoma				
A 77	(a) 390	Otitis externa	803	700	3,459	4,962
	(b) 391-393	Otitis media and mastoiditis	422	278	1,990	2,690
	(c) 394	Other inflammatory diseases of ear	1,301	1,111	4,117	6,529
A 78	(a) 380-384	All other diseases and conditions of eye				
	386, 388					
	389					
	(b) 342	Intracranial and intraspinal abscess				
	(c) 343	Encephalitis, myelitis and encephalomyelitis				
	(d) 350	Paralysis agitans .. ..	..	1	..	1
	(e) 352	Other cerebral paralysis	1	1	..	2
	(f) 356	Motor neurone disease and muscular atrophy				
	(g) 357	Other diseases of spinal cord				
	(h) 366	Other and unspecified forms of neuralgia and neuritis	15,025	11,538	1,834	28,397
	(i) 367	Other diseases of cranial nerves	27	9	2	38
	(j) 369	Diseases of peripheral autonomic nervous system	1	..	..	1
	(k) 341, 344	All other diseases of the nervous system and sense organs				
	351, 354					
	355					
	360-365					
	368					
	395-398					
		<i>Carried forward</i> ..	111,091	92,081	150,874	354,046

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	111,091	92,081	150,874	354,046
		VII.—DISEASES OF THE CIRCULATORY SYSTEM				
A 79	(a) 400	Rheumatic fever without mention of heart involvement	147	95	1	243
	(b) 401	Rheumatic fever with heart involvement				
	(c) 402	Chorea				
A 80	(a) 410-413	Diseases of valves specified as rheumatic				
	(b) 414	Other endocarditis specified as rheumatic				
	(c) 415	Other myocarditis specified as rheumatic				
	(d) 416	Other heart disease specified as rheumatic				
A 81	(a) 420	Arteriosclerotic heart disease, including coronary disease				
	(b) 421	Chronic endocarditis not specified as rheumatic				
	(c) 422	Other myocardial degeneration				
A 82	(a) 430	Acute and subacute endocarditis				
	(b) 431	Acute myocarditis				
	(c) 432	Acute pericarditis				
	(d) 433	Functional disease of heart	3			3
	(e) 434	Other and unspecified diseases of heart	44	27	3	74
A 83	440-443	Hypertension with heart disease		1		1
A 84	444-447	Hypertension without mention of heart	27	30		57
A 85	(a) 450	General arteriosclerosis				
	(b) 451	Aortic aneurysm specified as non-syphilitic and dissecting aneurysm				
	(c) 452	Other aneurysm, except of heart and aorta				
	(d) 453	Peripheral vascular disease				
	(e) 454	Arterial embolism and thrombosis				
	(f) 455	Gangrene of unspecified cause				
	(g) 456	Other diseases of arteries				
A 86	(a) 460, 462	Varicose veins	16	4		20
	(b) 461	Haemorrhoids	198	77	3	278
	(c) 463-464	Phlebitis and thrombophlebitis	2			2
	(d) 465	Pulmonary embolism and infarction				
	(e) 466	Other venous embolism and thrombosis		1		1
	(f) 467	Other diseases of circulatory system				
	(g) 468	(a) Adenitis	74	28	50	152
		(b) Lymphadenitis	18	8	5	31
		(c) Other diseases of lymph nodes and lymph channels				
		VIII.—DISEASES OF THE RESPIRATORY SYSTEM				
A 87	(a) 470	Acute nasopharyngitis (common cold)	10,949	7,015	13,787	31,751
	(b) 471	Acute sinusitis	16	10	57	83
	(c) 472	Acute pharyngitis	453	354	427	1,234
	(d) 473	Acute tonsillitis	308	292	571	1,171
	(e) 474	Acute laryngitis and tracheitis	923	648	1,074	2,645
	(f) 475	Other acute upper respiratory infections	270	146	285	701
A 88	(a) 480	Influenza with pneumonia	11	7	4	22
	(b) 481	Influenza with other respiratory manifestations, and influenza unqualified	6,074	4,371	6,740	17,185
	(c) 482	Influenza with digestive manifestations, but without respiratory symptoms	102	78	128	308
	(d) 483	Influenza with nervous manifestations, but without digestive or respiratory symptoms	738	551	877	2,166
A 89	490	Lobar pneumonia	6	4		10
A 90	491	Broncho-pneumonia	1		23	24
		<i>Carried forward</i> ..	131,471	105,828	174,909	412,208

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	131,471	105,828	174,909	412,208
		VIII.—DISEASES OF THE RESPI- RATORY SYSTEM—(cont.)				
A 91	492-493	Primary atypical, other and unspecified pneumonia	3	..	8	11
A 92	500	Acute bronchitis	3,602	2,515	6,470	12,587
A 93	(a) 501	Bronchitis unqualified	29,572	19,337	39,586	88,495
	(b) 502	Chronic bronchitis	1,807	1,436	634	3,877
A 94	510	Hypertrophy of tonsils and adenoids	26	18	7	51
A 95	(a) 518	Empyema .. .. .	..	..	..	..
	(b) 521	Abscess of lung .. .. .	..	..	..	..
A 96	519	Pleurisy .. .. .	..	..	2	2
A 97	(a) 517	Other diseases of upper respiratory tract	413	258	144	815
	(b) 520	Spontaneous pneumothorax .. .. .	..	..	..	..
	(c) 522	Pulmonary congestion and hypostasis .. .. .	..	..	..	..
	(d) 525	Other chronic interstitial pneumonia	7	4	4	15
	(e) 523	Pneumoconiosis .. .. .	..	..	..	..
	(f) 526	Bronchiectasis	2	1	..	3
	(g) 511-516	All other respiratory diseases	505	258	341	1,104
	524					
	527					
		IX.—DISEASES OF THE DIGESTIVE SYSTEM				
A 98	(a) 530	Dental caries	2,693	2,025	4,779	9,497
	(b) 531-535	(a) Gingivitis	50	36	59	145
		(b) Pyorrhoea	116	75	15	206
		(c) Other diseases of teeth and supporting structures	114	131	76	321
A 99	540	Ulcer of stomach	7	11	2	20
A 100	541	Ulcer of duodenum .. .. .	..	..	..	..
A 101	543	Gastritis and duodenitis	9,091	4,841	3,517	17,449
A 102	550-553	Appendicitis .. .. .	..	2	..	2
A 103	(a) 560	Hernia of abdominal cavity without mention of obstruction	1	..	3	4
	(b) 561	Hernia of abdominal cavity with obstruction .. .. .	..	..	..	..
	(c) 570	(a) Intussusception .. .. .	..	..	..	..
		(b) Volvulus .. .. .	..	..	..	..
		(c) Other intestinal obstruction .. .. .	..	..	..	..
A 104	(a) 571.0	Gastro-enteritis and colitis between 4 weeks and 2 years .. .. .	..	..	3,554	3,554
	(b) 571.1	Gastro-enteritis and colitis, ages 2 years and over	3,858	2,792	4,042	10,692
	(c) 572	Chronic enteritis and ulcerative colitis	13	6	8	27
A 105	(a) 581.0	Cirrhosis of liver without mention of alcoholism .. .. .	..	..	..	..
	(b) 581.1	Cirrhosis of liver with alcoholism .. .. .	..	..	..	..
A 106	(a) 584	Cholelithiasis .. .. .	..	..	..	..
	(b) 585	Cholecystitis without mention of calculi .. .. .	..	..	..	..
A 107	(a) 536	Stomatitis	738	1,022	2,321	4,081
	(b) 538	Other diseases of buccal cavity	31	29	131	191
	(c) 539	(a) Functional disorders of oesophagus .. .. .	..	..	..	..
		(b) Stricture of obstruction of oesophagus .. .. .	..	..	..	..
	(d) 544	Disorders of function of stomach	2,588	2,710	1,969	7,267
	(e) 545	Other diseases of stomach and duodenum	503	460	468	1,431
	(f) 573	(a) Constipation	13,419	8,394	7,399	29,212
		(b) Other functional disorders of intestines	680	473	492	1,645
	(g) 574	Anal fissure and fistula .. .. .	..	..	..	..
	(h) 575	Abscess of anal and rectal regions	2	..	..	2
	(i) 576	Peritonitis .. .. .	..	..	..	..
	(j) 578	Other diseases of intestines and peritoneum	11	1	9	21
		<i>Carried forward</i> ..	201,323	152,663	250,949	604,935

TABLE 7—(cont.)
 OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	201,323	152,663	250,949	604,935
		IX.—DISEASES OF THE DIGESTIVE SYSTEM—(cont.)				
	(k) 580	(a) Acute yellow atrophy of liver				
		(b) Degeneration of liver				
		(c) Hepatitis	21	8	6	35
	(l) 583	Other diseases of liver	11	14	2	27
	(m) 586	Other diseases of gall-bladder and biliary ducts	22	2	3	27
	(n) 587	Diseases of pancreas	2	..	..	2
	(o) 537, 542 577, 582 }	Other diseases of digestive system	2,090	2,062	1,122	5,274
		X.—DISEASES OF THE GENITO- URINARY SYSTEM				
A 108	590	Acute nephritis	8	5	4	17
A 109	(a) 591	Nephritis with oedema, including nephrosis	6	2	..	8
	(b) 592	Chronic nephritis	22	10	5	37
	(c) 593	Nephritis not specified as acute or chronic	174	96	114	384
	(d) 594	Other renal sclerosis .. ..	..	..	..	..
A 110	600	Infections of kidney	5	..	..	5
A 111	(a) 602	Calculi of kidney and ureter	2	..	..	2
	(b) 604	Calculi of other parts of urinary system	1	..	1	2
A 112	610	Hyperplasia of prostate .. ..	..	..	..	..
A 113	620-621	Diseases of breast .. ..	..	9	..	9
A 114	(a) 603	Other diseases of kidney and ureter	336	211	50	597
	(b) 605	Cystitis	144	85	29	258
	(c) 606	Other diseases of bladder	5	5	1	11
	(d) 608	Stricture of urethra	5	1	1	7
	(e) 609	Other diseases of urethra	63	15	5	83
	(f) 612	Other diseases of prostate	17	..	..	17
	(g) 613	Hydrocele	3	..	..	3
	(h) 614	Orchitis and epididymitis	21	..	3	24
	(i) 617	Other diseases of male genital organs	3	..	1	4
	(j) 622	Acute salpingitis and oophoritis .. ..	..	..	..	..
	(k) 625	Other diseases of ovary and fallopian tube .. ..	..	1	..	1
	(l) 626	Diseases of parametrium and pelviperi- toneum (female) .. ..	..	..	..	..
	(m) 630	Infective disease of uterus, vagina and vulva .. ..	..	1	..	1
	(n) 633	Other diseases of uterus .. ..	..	2	..	2
	(o) 634	Disorders of menstruation .. ..	..	376	..	376
	(p) 637	Other diseases of female genital organs .. ..	..	25	1	26
	(q) 601	.. ..	..	..	..	..
	607, 611 615-616 623-624 631-632 635-636 }	All other diseases of the genito-urinary system	299	166	100	565
		XI.—DELIVERIES AND COMPLI- CATIONS OF PREGNANCY, CHILD- BIRTH AND THE PUERPERIUM				
A 115	(a) 640	Pyelitis and pyelonephritis of pregnancy .. ..	..	..	..	..
	(b) 641	Other infections of genito-urinary tract during pregnancy .. ..	..	..	..	..
	(c) 681	Sepsis of childbirth and the puerperium .. ..	..	..	..	..
	(d) 682	Puerperal phlebitis and thrombosis .. ..	..	..	..	..
	(e) 684	Puerperal pulmonary embolism .. ..	..	..	..	..
A 116	(a) 642	(a) Albuminuria of pregnancy .. ..	..	4	..	4
		(b) Eclampsia of pregnancy .. ..	..	..	..	..
		(c) Hyperemesis gravidarum .. ..	..	5	..	5
		(d) Acute yellow atrophy of liver .. ..	..	..	..	..
		(e) Other toxæmias of pregnancy .. ..	..	..	..	..
		<i>Carried forward</i> ..	204,583	155,768	252,397	612,748

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	204,583	155,768	252,397	612,748
		XI.—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILD-BIRTH AND THE PUERPERIUM —(cont.)				
	(b) 652	Abortion with toxæmia, without mention of sepsis .. .. .	..	1	..	1
	(c) 685	Puerperal eclampsia .. .. .	..	..	..	..
	(d) 686	Other forms of puerperal toxæmia .. .. .	..	..	..	..
A 117	(a) 643	Placenta prævia .. .. .	..	..	..	..
	(b) 644	Other hæmorrhage of pregnancy .. .. .	..	1	..	1
	(c) 670	Delivery complicated by placenta prævia or antepartum hæmorrhage .. .. .	..	..	..	..
	(d) 671	Delivery complicated by retained placenta .. .. .	..	..	..	..
	(e) 672	Delivery complicated by other postpartum hæmorrhage .. .. .	..	..	..	..
A 118	650	Abortion without mention of sepsis or toxæmia .. .. .	..	7	..	7
A 119	651	Abortion with sepsis .. .. .	..	..	..	..
A 120	(a) 645	Ectopic pregnancy .. .. .	..	8	..	8
	(b) 646	Anæmia of pregnancy .. .. .	..	864	..	864
	(c) 683	Pyrexia of unknown origin during the puerperium .. .. .	..	5	..	5
	(d) 688.1	Puerperal psychoses .. .. .	..	..	..	..
	(e) 689	Mastitis and other disorders of lactation .. .. .	..	14	..	14
	(f) 647-649 } 673-680 } 687 } 688.0 }	Other complications of pregnancy, child-birth and the puerperium .. .. .	..	18	..	18
	(g) 688.2-688.3 } 660 }	Delivery without complications .. .. .	..	90	..	90
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE				
		AND				
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT				
A 121	(a) 690	Boil and carbuncle	1,763	861	2,645	5,269
	(b) 691-693	Cellulitis and abscess	2,740	1,686	2,977	7,403
	(c) 694-698	Other infections of skin and subcutaneous tissue	9,707	5,060	14,713	29,480
A 122	(a) 720	Acute arthritis due to pyogenic organisms	6	4	..	10
	(b) 721	Acute nonpyogenic arthritis	15	12	..	27
	(c) 722	Rheumatoid arthritis and allied conditions	171	163	..	334
	(d) 723-725	Arthritis specified and unspecified	1,644	1,063	46	2,753
A 123	(a) 726	Muscular rheumatism	3,130	2,555	9	5,694
	(b) 727	Rheumatism unspecified	6,955	4,714	306	11,975
A 124	730	Osteomyelitis and periostitis	4	1	..	5
A 125	(a) 737	Ankylosis of joint	16	15	..	31
	(b) 745-749	Other acquired musculoskeletal deformities	18	13	52	83
A 126	(a) 715	Chronic ulcer of skin (including tropical ulcer)	11,803	7,187	15,908	34,898
	(b) 700-714 } 716 }	All other diseases of skin	18,964	11,944	23,083	53,991
	(c) 731-736 } 738-744 }	All other diseases of musculoskeletal system	1,345	797	44	2,186
		<i>Carried forward</i> ..	262,864	192,851	312,180	767,895

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	262,864	192,851	312,180	767,895
		XIV.—CONGENITAL MALFORMATIONS				
A 127	751	Spina bifida and meningocele				
A 128	754	Congenital malformations of circulatory system				
A 129	(a) 750	Monstrosity				
	(b) 752	Congenital hydrocephalus				
	(c) 753	Other congenital malformations of nervous system and sense organs		2	6	8
	(d) 755	Cleft palate and harelip				
	(e) 756	(a) Congenital hypertrophic pyloric stenosis (b) Imperforate anus (c) Other congenital malformations of digestive system				
	(f) 757	Congenital malformations of genito-urinary system				
	(g) 758	Congenital malformations of bone and joint				
	(h) 759	Other and unspecified congenital malformations, not elsewhere classified				
		XV.—CERTAIN DISEASES OF EARLY INFANCY				
A 130	(a) 760	Intracranial and spinal injury at birth				
	(b) 761	Other birth injury				
A 131	762	Postnatal asphyxia and atelectasis				
A 132	(a) 764	Diarrhoea of newborn			830	830
	(b) 765	Ophthalmia neonatorum			11	11
	(c) 763	Pneumonia of newborn			1	1
	(d) 766	Pemphigus neonatorum				
	(e) 767	Umbilical sepsis			54	54
	(f) 768	Other sepsis of newborn				
A 133	770	Haemolytic disease of newborn				
A 134	769	All other defined diseases of early infancy			3	3
	771-772					
A 135	(a) 773	Congenital debility			3	3
	(b) 774	Premature birth			1	1
	(c) 775-776	Other ill-defined diseases peculiar to early infancy and immaturity unqualified			3	3
		XVI.—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS				
A 136	794	Senility without mention of psychoses	1,770	1,658	..	3,428
A 137	(a) 780	Infantile convulsions			9	9
	(b) 788.8	Pyrexia of unknown origin	6,162	4,232	4,769	15,163
	(c) 793	Observation, without need for further medical care	15	41	71	127
	(d) 781-787 789-792 795 788.1-788.7 788.9	(a) Malingering	18	8	16	42
		(b) Sudden death (cause unknown)				
		(c) Found dead (cause unknown)				
		(d) Other ill-defined and unknown causes of morbidity and mortality	5,945	4,386	2,835	13,166
		<i>Carried forward</i> ..	276,774	203,178	320,792	800,744

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	276,774	203,178	320,792	800,744
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE				
		"E" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)				
AE 138	E 810-E 835	Motor vehicle accidents	18	3	10	31
AE 139 (a)	E 800-E 802	Railway accidents				
(b)	E 850-E 858	Water transport accidents				
(c)	E 860-E 866	Aircraft accidents				
(d)	E 840-E 845	Other transport accidents	172	118	306	596
AE 140 (a)	E 870	Accidental poisoning by morphia and other opium derivatives				
(b)	E 874	Accidental poisoning by other analgesic and soporific drugs				
(c)	E 878	Accidental poisoning by other and unspeci- fied drugs				
(d)	E 883	Accidental poisoning by corrosive aro- matics, acids and caustic alkalies ..				
(e)	E 884	Accidental poisoning by mercury and its compounds				
(f)	E 885	Accidental poisoning by lead and its compounds				
(g)	E 886	Accidental poisoning by arsenic and anti- mony and their compounds				
(h)	E 888	Accidental poisoning by other and unspeci- fied solid or liquid substances				
(i)	E 890-E 895	Accidental poisoning by gases and vapours				
(j)	E 871-E 873 E 875-E 877 E 879-E 882 E 887	Other accidental poisoning	5	1	11	17
AE 141	E 900-E 904	Accidental falls	2,900	1,402	2,577	6,879
AE 142	E 912	Accident caused by machinery	11	4	8	23
AE 143	E 916	Accident caused by fire and explosion of combustible material	39	31	74	144
AE 144	E 917-E 918	Accident caused by hot substance, corrosive liquid, steam and radiation	144	161	235	540
AE 145	E 919	Accident caused by firearm				
AE 146	E 929	Accidental drowning and submersion ..				
AE 147 (a)	E 913	Accidents caused by cutting or piercing instruments	4,055	2,065	2,851	8,971
(b)	E 914	Accidents caused by electric current ..				
(c)	E 920	Foreign body entering eye and adnexa ..			3	3
(d)	E 923	Foreign body entering other orifice ..				
(e)	E 925	Accidental mechanical suffocation ..				
(f)	E 926	Lack of care of infants under 1 year of age			6	6
(g)	E 927	Accidents caused by bites and stings of venomous animals and insects	381	233	310	924
(h)	E 928	Other accidents caused by animals ..	20	5	17	42
(i)	E 931	Excessive heat				
(j)	E 932	Excessive cold				
(k)	E 933	Hunger, thirst and exposure				
(l)	E 934	Cataclysm				
(m)	E 935	Lightning				
(n)	E 936	(a) Accidents in mines and quarries ..	1			1
		(b) Agricultural and forestry accidents ..				
		(c) Accidental injury by crushing or land- slide				
		(d) Other and unspecified accidents ..	211	80	250	541
(o)	E 940	Generalized vaccinia following vaccination			59	59
(p)	E 941-E 942	Other complications of smallpox vac- cination			14	14
		<i>Carried forward</i> ..	284,731	207,281	327,523	819,535

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	284,731	207,281	327,523	819,535
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		"E" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
	(q) E950-E953 E955-E959	Accidents due to medical or surgical intervention				
	(r) E 954	Anaesthetic accidents				
	(s) E910-E911 E 915					
	E921-E922 E924-E930 E943-E946 E960-E965	All other accidental causes	439	199	409	1,047
AE 148	(a) E 970	Suicide and self-inflicted injury by analgesic and soporific substances	18	5	11	34
	(b) E 971	Suicide and self-inflicted injury by other solid and liquid substances				
	(c) E 972	Suicide and self-inflicted injury by gases in domestic use				
	(d) E 973	Suicide and self-inflicted injury by other gases				
	(e) E 974	Suicide and self-inflicted injury by hanging or strangulation				
	(f) E 975	Suicide and self-inflicted injury by sub- mersion (drowning)				
	(g) E 976	Suicide and self-inflicted injury by firearms and explosives				
	(h) E 977	Suicide and self-inflicted injury by cutting or piercing instruments				
	(i) E 978	Suicide and self-inflicted injury by jumping from high place				
	(j) E 979	Suicide and self-inflicted injury by other and unspecified means				
AE 149	(a) E 980	Nonaccidental poisoning by another person				
	(b) E 981	Assault by firearms and explosive				
	(c) E 982	Assault by cutting or piercing instruments ..	8	4	3	15
	(d) E 983	Assault by other means	1	1	..	2
	(e) E 984	Injury by intervention of police				
	(f) E 985	Execution (legal)				
AE 150	E 990-E 999	Injury resulting from operations of war ..				
		"N" CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONING, AND VIOLENCE (NATURE OF INJURY)				
AN 138	N 800-N 804	Fracture of skull				
AN 139	N 805-N 809	Fracture of spine and trunk				
AN 140	N 810-N 829	Fracture of limbs	8	..	2	10
AN 141	N 830-N 839	Dislocation without fracture	1	..	..	1
AN 142	N 840-N 848	Sprains and strains of joints and adjacent muscles	1,674	503	690	2,867
AN 143	N 850-N 856	Head injury excluding fracture				
AN 144	N 860-N 869	Internal injury of chest, abdomen and pelvis	5	5	9	19
AN 145	N 870-N 908	Laceration and open wounds	3,531	1,337	2,693	7,561
AN 146	N 910-N 929	Superficial injury, contusion and crushing with intact skin surface	978	328	788	2,094
AN 147	N 930-N 936	Effects of foreign body entering through orifice	1	..	1	2
AN 148	N 940-N 949	Burns	293	300	522	1,115
AN 149	N 960-N 979	Effects of poisons				
AN 150	N 950-N 959 } N 980-N 999 }	All other and unspecified effects of external causes	304	177	290	771
		TOTAL ..	291,992	210,140	332,941	835,073

TABLE 7—(cont.)
 OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1955—(cont.)

Nationalities	New Cases All Nationalities (including Europeans)			
	Adult Males	Adult Females	Children under 10 years	Total (A)
Europeans	—	—	—	—
Eurasians	75	128	144	347
Chinese	57,210	49,401	78,895	185,506
Indians	19,895	14,306	19,662	53,863
Malays	192,507	133,072	213,184	538,763
Javanese	14,763	7,871	14,877	37,511
Japanese	—	—	—	—
Others	7,542	5,362	6,179	19,083
TOTAL ..	291,992	210,140	332,941	835,073

TABLE 8

DENTAL—SUMMARY OF WORK DONE DURING THE YEAR 1955

State/Settlement	Attendances	EXTRACTIONS		FILLINGS				Scalings	Dentures
		Temporary Teeth	Permanent Teeth	Amalgam	Silicate	Inlay	Fillings		
Kedah	36,846	10,514	21,014	8,569	1,787	55	51	862	455
Perlis	5,006	988	2,107	1,343	171	26	—	78	—
Penang	26,490	5,092	6,806	6,034	300	19	14	462	135
Perak	40,932	14,864	30,748	12,603	2,637	—	12	923	402
Selangor	24,883	4,983	12,273	5,604	1,291	9	12	637	231
Negri Sembilan	29,454	6,052	13,529	22,828	2,808	43	5	948	875
Malacca	17,523	1,238	6,822	14,405	1,343	43	10	279	299
Johore	52,651	18,499	22,291	17,007	1,869	51	124	1,035	491
Kelantan	15,133	3,424	10,911	5,104	1,149	32	7	934	23
Trengganu	19,566	2,812	16,060	3,453	1,120	12	—	512	222
Pahang	25,109	7,432	9,080	8,266	3,642	—	—	804	120
Federal Institution, North	5,065	683	3,661	2,494	185	33	—	569	—
Federal Institution, South	5,541	316	2,920	1,212	276	113	1	184	399
Dental Nurses Training School	18,617	2,920	1,245	14,785	—	—	36	—	—
Dental Nurses in the Field	118,463	61,476	3,919	81,351	—	—	—	6,511	—
Total	441,279	141,293	163,386	205,058	18,578	436	272	14,738	3,652

TABLE 9

MICROSCOPICAL EXAMINATION OF BLOOD FILMS
FOR THE YEAR 1955

State/Settlement	Number of patients examined	Number positive for Malarial Parasites				Total Number of Examinations of blood films
		S.T.	B.T.	Quartan	Mixed Infection	
Kedah	28,802	634	588	4	4	29,819
Perlis	3,475	284	328	1	2	3,234
Penang	15,370	457	90	—	2	26,497
Perak	61,316	1,034	755	4	33	86,078
Selangor	47,391	928	715	3	7	81,679
Negri Sembilan	19,134	861	223	9	17	26,504
Malacca	11,996	350	64	1	3	13,130
Johore	16,864	308	161	6	49	20,177
Kelantan	12,977	1,470	1,402	14	47	14,262
Trengganu	4,576	351	254	16	28	4,598
Pahang	23,942	1,051	356	2	20	32,031
Total	245,843	7,728	4,936	60	212	338,009

TABLE 10

MICROSCOPICAL EXAMINATION OF FAECES FOR
WORM INFECTIONS, 1955

State/Settlement	Number of patients examined	Number positive for entamoeba histolytica	Number positive for ova			Total number of examinations
			Ascaris lumbricoides	Ankylostoma duodenale	Mixed infection	
Kedah	16,709	246	3,268	1,826	295	17,447
Perlis	2,018	4	678	115	124	2,801
Penang	14,674	152	4,220	3,394	1,296	18,125
Perak	52,034	275	5,824	1,586	948	57,361
Selangor	42,250	102	8,455	2,879	1,318	49,867
Negri Sembilan	10,750	64	2,448	1,606	1,453	13,720
Malacca	16,230	44	1,112	1,263	4,160	11,608
Johore	10,313	139	3,644	1,369	1,235	11,395
Kelantan	4,931	107	1,014	522	1,071	5,243
Trengganu	1,836	47	677	93	592	1,854
Pahang	10,369	69	2,483	388	505	13,098
Total	182,114	1,249	33,823	15,041	12,997	202,519

TABLE 11
POST MORTEM EXAMINATIONS, 1955

	State/Settlement						Medico-legal	Clinical
Kedah	236	8
Perlis	18	—
Penang	205	76
Perak	584	32
Selangor	529	58
Negri Sembilan	263	6
Malacca	121	47
Johore	394	223
Kelantan	77	—
Trengganu	42	—
Pahang	176	5
						Total	2,645	455

TABLE 12
 RETURN OF VENEREAL DISEASES FOR THE YEAR 1955
 A.—NEW CASES

Nationalities	SYPHILIS			Gonorrhoea	Non-Specific Urethritis	Chan-croid	Lympho-gran.	Comb. Infec.	Non-Venerl.	Total	
	Prim.	Sec.	Tert. Congen.							M.	F.
Chinese	M. 66	650	200	27	1,722	269	49	40	719	399,2	—
	F. 17	177	124	50	142	89	—	4	318	—	922
Indians	M. 81	327	132	17	1,065	203	47	72	541	2,763	—
	F. 9	167	96	22	60	44	3	7	167	—	576
Malays	M. 62	342	149	8	1,443	273	10	26	318	2,666	—
	F. 33	221	98	12	177	95	—	9	268	—	913
Europeans	M. 1	—	—	—	51	24	—	1	29	108	—
	F. —	—	—	—	—	1	—	—	27	—	28
Others	M. —	16	7	—	42	6	1	1	47	128	—
	F. —	7	2	—	9	1	—	—	9	—	28
Total	M. 210	1,335	488	52	4,323	775	107	140	1,654	9,657	—
	F. 59	572	320	84	388	230	3	20	789	—	2,467
											GRAND TOTAL .. 12,124

TABLE 12—(cont.)

B.—RE-ATTENDANCES

Nationalities	SYPHILIS			Gonorrhoea	Non-Specific Urethritis	Chan-croid	Lympho-gran.	Comb. infec.	Non-Venrl.	Total			
	Prim.	Sec.	Tert.							Congen.	M.	F.	
Chinese	M.	170	4,333	2,802	201	2,663	412	1,254	111	154	1,370	13,470	—
	F.	32	2,627	980	839	392	277	—	—	17	684	—	5,848
Indians	M.	208	2,280	1,683	159	1,997	482	1,301	53	334	1,146	9,643	—
	F.	19	1,835	744	333	141	172	—	10	19	424	—	3,697
Malays	M.	159	4,488	1,097	71	2,333	419	117	53	94	1,068	9,899	—
	F.	90	1,877	561	337	416	249	—	—	30	580	—	4,140
Europeans	M.	—	—	2	—	40	18	—	—	2	35	97	—
	F.	—	—	—	—	—	—	—	—	—	1	—	1
Others	M.	—	89	101	—	65	3	4	—	3	49	314	—
	F.	—	93	—	—	6	10	—	—	—	22	—	131
Total	M.	537	11,190	5,685	431	7,098	1,334	2,676	217	587	3,668	33,423	—
	F.	141	6,432	2,285	1,509	955	708	—	10	66	1,711	—	13,817
													GRAND TOTAL .. 47,240

TABLE 12—(cont.)

C.—ANALYSIS OF COMBINED INFECTIONS—NEW CASES ONLY

	Chinese		Indians		Malays		Europeans		Others		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
With Syphilis ..	39	4	67	7	25	9	1	—	1	—	133	20
With Gonorrhoea ..	40	4	66	7	26	9	1	—	1	—	134	20
With Non-Spec. Urethritis ..	—	—	2	—	—	—	—	—	—	—	2	—
With Chancroid ..	1	—	7	—	1	—	—	—	—	—	9	—
With Lymphogranuloma ..	—	—	2	—	—	—	—	—	—	—	2	—

TABLE 13

SUMMARY OF CHILD HEALTH CENTRES, 1955

State/Settlement	Centres		Medical Officers		Health		Dispensers or Hospital Assistants	Midwives	Others
	Permanent	Subsidiary	Men	Women	Sisters	Nurses			
Kedah	7	64	—	—	4	14	—	49	—
Perlis	2	2	1 (P.T.)	—	—	1	5	11 (K.B.)	—
Penang	34	—	—	2	3	16	3	26	1 (D.N.)
Perak	10	—	—	—	7	17	—	57 (K.B.)	—
Selangor	9	48	—	—	4	20	5	34	—
Negri Sembilan	12	34	—	1 (P.T.)	6	6	7 (P.T.)	14	—
Malacca	12	—	—	1	1	8	1	12	—
Johore	5	105	—	5 (2 P.T.)	5 (4 P.T.)	10	2	54 7*	1 (A.N.)
Kelantan	2	5	1	—	2	1	1	15	—
Trengganu	5	—	1	—	3	—	4	4	—
Pahang	8	189	—	—	2	8	—	44 (43 K.B.)	—
	106	447	3 (1 P.T.)	9 (3 P.T.)	37 (4 P.T.)	101	28 (7 P.T.)	327 (111 K.B.)	1 (D.N.) 1 (A.N.)

P.T. = Part Time. K.B. = Kampong Bidans. D.N. = Dental Nurse. A.N. = Assistant Nurse. * Student Midwives (Part Time).

TABLE 14

SUMMARY OF DISPENSARIES, 1955

State/Settlement	Total Number	Fixed	Travelling Road and River	Medical Officers	Health		Dispensers or Hospital Assistants	Midwives	Others
					Sisters	Nurses			
Kedah	22	17	5	—	—	—	21	—	—
Perlis	7	6	1	1 (P.T.)	—	—	6	6	—
Penang	17	14	3	3	—	3	10	—	1 (D.N.)
Perak	47	31	16	—	1	—	38	—	—
Selangor	46	37	9	4	—	—	31	—	—
Negri Sembilan	18	13	5	—	—	—	16	—	—
Malacca	15	10	5	3	1	8	16	12	—
Johore	34	21	13	12	5	13	31	—	—
Kelantan	15	10	5	—	—	—	12	—	—
Trengganu	13	8	5	1	3	—	9	2	—
Pahang	27	17	10	3	—	1	16	—	—
Total	261	184	77	27 (1 P.T.)	10	25	206	20	1 (D.N.)

P.T. = Part Time. D.N. = Dental Nurse.

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