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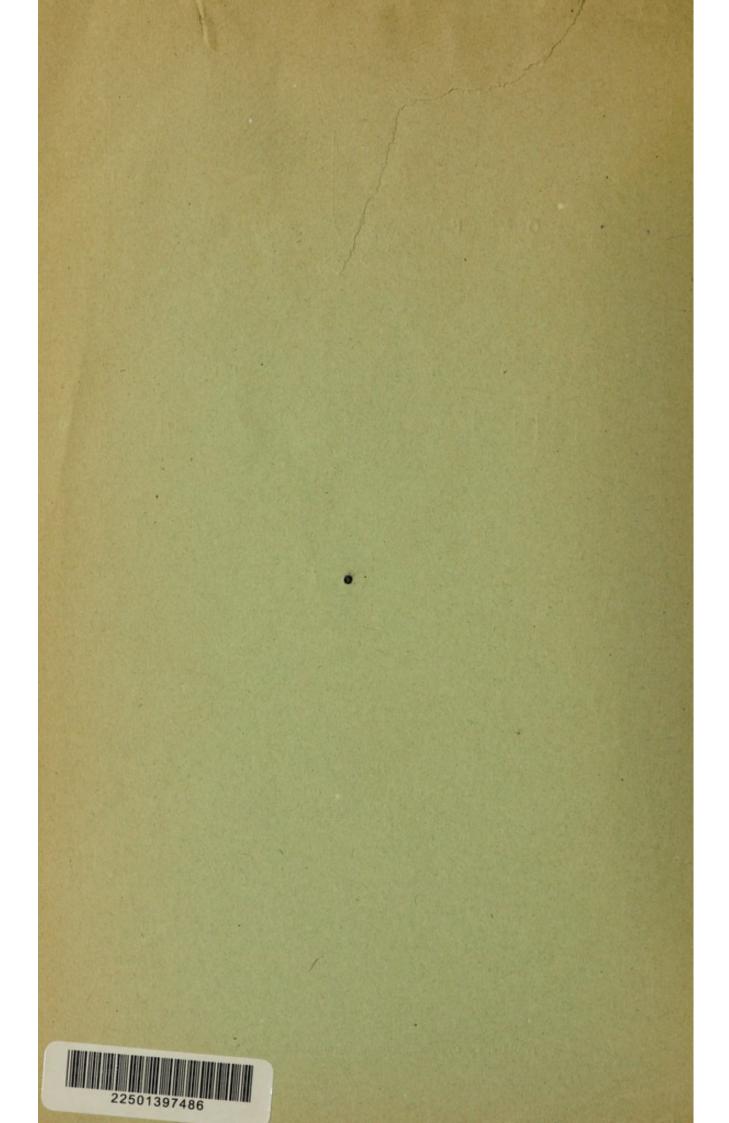


NORTH BORNEO

MEDICAL DEPARTMENT ANNUAL REPORT 1952 and 1953

Ву Т. К. АВВОТТ, м.в.в.з., d.р.н. and L. J. CLAPHAM, м.d., d.р.н.

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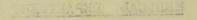


MEDICAL DEPARTMENT

ANNUAL REPORTS -1952 & 1953.

For various reasons the Annual Report for the year 1952 was delayed, and it was not possible to publish it at the usual time.

The Annual Reports for the years 1952 and 1953 are now therefore published simultaneously.



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ANNUAL REPORT OF THE MEDICAL DEPARTMENT, 1952.

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PART I

STAFF AND ADMINISTRATION

1. <u>The Senior Medical Staff</u> consists of a Director, a Deputy Director of Medical Services and 12 Medical Officers, one of whom is assigned to Health Officer duties. The Director went on accelerated leave in October on medical grounds. The Deputy Director became Acting Director. Sanction was obtained to post two Medical Officers as Health Officers in 1953, one to the West Coast and Interior and one to the East Coast. The establishment of Medical Officers was filled for the first time since the war. Two Medical Officers obtained post-graduate diplomas, one D.P.H. and one D.T.M. & H., while a third Medical Officer is at present in the United Kingdom studying for Diploma in Otolaryngology. A Surgeon and a Dental Officer arrived in the Colony early in the year.

2. <u>Senior Nursing Staff</u>. A Colony Matron was appointed and arrived in September on transfer from the Bahamas. There are six Nursing Sisters on the establishment. During the year one Sister retired, one Sister was transferred to another Colony and two Sisters married. At the end of the year, therefore, only two Sisters were on duty in the Colony. However, two new Sisters were appointed and are due to arrive in early 1953. One Health Visitor was stationed at Keningau.

3. The Medical Accountant-Storekeeper at the conclusion of his contract and leave in the United Kingdom returned to the Colony to work under a revised set of terms in which he became responsible for all the Departmental accounts in addition to his former store-keeping duties.

4. <u>Nurses, Midwives and Dressers.</u> The main training centre was Jesselton. The UNICEF teaching team left the Colony and was replaced by two W.H.O. Sister-tutors towards the end of the year. Two Nurses and 8 Dressers sat for examinations and of these all but two dressers passed. Of 140 probationer and trained dressers on the establishment, 31 posts were vacant. It is proposed to fill these vacancies with probationer nurses. Two posts for staff nurses in the establishment of 7 were vacant. Three Hospital Midwives and/Village Midwives passed their examinations.

5. During the year it was possible to arrange for most of the very considerable outstanding leave due to Junior Staff, to be taken. There was a heavy back-log dating from the immediate post-war years.

6. <u>Health Staff</u>. The approved estimates for 1952 provided for 3 Sanitary Inspectors, 6 Junior Health Inspectors, 15 Village Health Inspectors and 3 Anti-Malaria Assistants. Recruitment difficulties were responsible for the actual personnel employed being 1, 2, 10 and 3 respectively. A teaching programme was laid down and the training of a Junior Health Inspectorate commenced.

7. For a comparative table of the Department's Staff for the years 1947 - 1952, see Appendix 'D'.

8. The number of Private Practitioners registered to practise in the Colony is as follows:-

> Jesselton - 6 Sandakan - 7 Tawau - 1 Lahad Datu - 1 Ranau - 1 Beaufort - 1 Lawas (Lumadan Estate) - 1 18

two

9. <u>Legislation</u>. Only two Laws directly affecting the Medical Department were passed during 1952. They were:-

- 2 -

- (a) The Agricultural and Industrial Poisons Ordinance 1952 (Ord. No.21 of 1952).
- (b) The Quarantine Ordinance No.8 of 1930. The Quarantine (Surra Control) Rules 1952 (S.84). Prohibition of Importation of Dogs and Cats (S.108).

10. Revenue and Expenditure for the year were as follows:-

Revenue

\$114,605.33

Personal Emoluments - \$894,444.53 Other Charges - 602,415.05 Special Expenditure - 74,708.78 Total - \$1,571,568.36 Expenditure (Colony Funds) - \$1,571,568.36

In addition to the above, payments made under C.D. & W. Schemes, mostly consisting of Capital Expenditure incurred in building programmes, totalled \$1,010,602.

11. <u>Medical Stores and Equipment</u>. In 1951 the general hospital equipment throughout the Colony was in urgent need of replacement. Nearly all of it had been derived in 1945 from the British Military Administration stores and had come to the end of its useful life. In addition it was felt that the new Hospital at Sandakan merited furnishings commensurate with its quality and modern design; accordingly indents were drawn up and costed at some §288,000. It was agreed that half this amount would be a proper charge against a C.D. & W. Scheme and that the remainder should be found from Colony Funds. These indents were lodged with the Crown Agents early in the year and by December supplies were beginning to come forward in bulk.

12. In addition to this general equipment, orders were placed for a Watson "double-twin" X-ray set as well as for comparatively minor but much needed items such as an electrocardiograph, infrared lamps and anaesthestic and diathermy machines.

13. A motor van constructed especially for service as a travelling dispensary was purchased and delivered.

14. With the appointment of a dentist to the establishment it became necessary to make provision for a complete dental surgery and orders were placed early in the year for this purpose.

15. Gratitude is once again expressed to UNICEF for the provision of certain equipment, including everything necessary for a first class seriological laboratory and a further supply of penicillin both of which formed part of an anti-yaws campaign. UNICEF also donated the stores required for the furnishing of the Maternity and Children's Wards in the principal hospitals of the Colony.

16. The full establishment of Medical Officers and the arrival of a Surgeon and a Dentist created a need for more life-saving drugs and antibiotics; accordingly very close attention was paid to the preparation and costing of the 1953 indents.

PART II

PUBLIC HEALTH

/1. General.....

1. <u>General</u>. The system of recording morbidity and mortality among hospital patients, according to the Intermediate List of the International Statistical Classification, 1948, was again followed. Separate returns were kept for those stations which were supervised by a doctor and those which were not.

2. At the seven stations at which a resident medical officer was in charge a total of 72,722 out-patients were treated, of which 42,106 were first attendances. In the same group there were 8,136 admissions to Hospital. An analysis of these cases is to be found at Appendix A.

3. At stations where there was no resident doctor during the period under review there was recorded a total of 161,176 outpatient cases, of which 111,219 were new cases. In this group 2,280 patients entered hospital.

4. There was thus a grand total of 233,898 out-patients and 10,416 in-patients treated during the year. This compares with 218,677 out-patients and 9,590 in-patients in 1951. Moreover, a proportionately higher number of those treated came under the attention of a doctor than in the previous year.

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perorento de des	1951	Literation in the	initiana di C
	Un-Supervised Stations	Supervised Stations	Total
Out-patients New Cases	101,801	30,351	132;152
Out-patients Repeat Cases	66,471	20,054	86,525
Total Out-patients	168,272	50,405	218,677
Admitted to Hospital	3,533	6,057	9,590

Table I.

1952

:===		Un-Supervised Stations	Supervised Stations	Total
: 0	ut-patients New Cases	111,219	42,106	153,325
: 0	ut-patients Repeat Cases	49,957	30,616	80,573
: 1	Notal Out-patients	161,176	72,722	233,898
	Admitted to Hospital	2,280	8,136	10,416

		Constant of the	1952	the interaction of to
	Racia	l Classific	ation of Patients Stations	seen at 'Supervised'
7		Out-pa	tients	In-patients
		New Cases	New Cases admitted during the year	
	Natives	16,947	10,498	3,206
	Chinese	20,797	16,730	3,807
	Others	4,362	3,388	1,123
	Total	42,106	30,616	8,136
			Table III.	
	Racia	l Classific	ation of Patients Stations	seen at 'Supervised'
		Out-pa	atients	In-patients
		New Cases	Repeated Cases	New Cases admitted during the year
	Natives	88,065	35,997	1,784
	Chinese	19,122	10,517	347
	Others	4,032	3,443	149
-	Total	:111,219	49,957	2,280

Table II.

- 4 -

About one-quarter of the cases in Table III were attended by travelling dressers.

PREVALENT COMMUNICABLE DISEASES

5. <u>Malaria</u>. The number of cases reported approximated closely to the 1951 totals. These were 28,019 Out-patients and 1,289 In-patients recorded as suffering from Malaria as compared with corresponding figures in 1951 of 30,000 and 1,195 respectively. Malignant Tertian Malaria appears to be diagnosed by all concerned more often than the Vivax Malaria. However, only a small fraction of all diagnosis of this disease is confirmed as belonging to a specified class the bulk being registered under "other and unspecified forms of malaria".

6. <u>Pulmonary Tuberculosis</u>. It is unwise to draw conclusions on the figures of morbidity and mortality in any one year; but those for this disease give some cause for relief; it would appear at least that there may now be some prospect of the alarming upward curve of morbidity and mortality being arrested.

Table IV.

- 5 -

Pulmonary Tuberculosis

Year : First Attendance	Admissions	Deaths	in Hospital:	
1951 151	381		91	
: 1952 : 153	316	1.2	52 :	

7. The totals in the above table are for the "Medical Officer" <u>plus</u> the other stations and it should be noted that the bulk of the decrease recorded has taken place at stations where there is a doctor and where one would expect the disease to be diagnosed more often. There are indications that the incidence of the disease among the Chinese section of the population is very much higher than among the native peoples, and that in the case of both Chinese and natives the male death rate is considerably greater than the female.

8. <u>Dysentery and Bowel Disease</u>. There was a marked increase in the incidence of towel disease during the year; 4,254 First Attendances and 459 Admissions to Hospital were recorded (2,892 and 402 respectively in 1951). In addition, there were 25 deaths in hospital ascribable to this cause (18 in 1951). If these are added to these figures, 9,000 out-patient first attendances and 258 admissions due to Helminth infestation, some idea is given of the amount of preventable illness which is occurring and which is directly related to poor sanitation.

9. It is surprising that there is so little typhoid and paratyphoid recorded. There were 7 admissions to Hospitals and 24 deaths due to para-typhoid.

10. <u>Acute Respiratory Infections</u>. Pneumonia (all types), influenza and bronchitis. The figures for this group of disease show no marked trend. There were more first attendances (10,502: 7,995 in 1951) but fewer admissions to Hospital (645:914 in 1951) and fewer deaths in Hospital (44:46 in 1951).

11. <u>Venereal Disease</u>. This disease, once common in North Borneo, is now of relatively rare occurrence. The very small incidence reported in 1951 appears to have decreased still further; and again this occurs in a year when because of the increase in senior staff there must have been improved diagnosis. The following table is of interest:-

Table V.

Venereal Disease

-					
		19	5 1	19	5 2
		lst Atten- dances	Admissions to Hospital	lst Atten- dances	Admissions to Hospital
	Gonorrhoea	148	113	91	36
	Early Syphilis	32	20	4	4

12. Yaws. This disease, which was widespread immediately after the war appears to have withdrawn to certain isolated "pockets" in the more rural areas.

/Table VI.

Table VI.

- 6 -

Yaws

11 ··· ···	Year	: 1st Attendances	: Admitted to Hospital
	1951	7,209	196
	1952	6,674	155

13. <u>Chronic Ulcer of the Skin</u>. This condition remains one of the most common treated by outstation dressers. There were 16,992 first attendances, of which the bulk occurred at "unsupervised" stations (cf. 16,641 First Attendances in 1951).

14. <u>The Major Epidemic Diseases</u>. There were no cases of the diseases which fall under this heading. During the year a vaccination campaign was undertaken and special attention was paid to the coastal towns and to the labour forces of estates. Altogether 54,045 vaccinations were performed.

15. <u>Leprosy</u>. Sulphetrone and parent-sulphone continue to give excellent results at the Leprosy Hospital at Berhala. Today one never sees, as formerly, large numbers of multiple sores. The absence of sores and the knowledge that every year a number of patients are discharged as cured has done much to raise the morale of sufferers from this disease.

Table VII.

16.

Comparative Table of Registered Deaths

	1947	1948	1949	1950	1951	1952
: Tuberculosis : (all forms) :	286	445	400	479	548	393
Dysentery and Diarrhoea	194	237	251	: 337	297	386
Malaria (all forms)	556	574	649	765	778	784
Pneumonia (all forma	s) 680	811	642	679	720	731
Senility	250	312	308	416	448	430
Total Registered Deaths from all Causes	5,126	4,552	4,717	4,126	4,503	4,530

17. <u>Nutrition</u>. It is very difficult to find a suitable yardstick by which to measure the nutritional state of the Colony. Year by year returns of frank deficiency disease are erratic, showing no trends and as a result few conclusions can be drawn.

18. There are individual groups in the population who by their habits, prejudices or laziness expose themselves to the likelihood of sub-clinical deficiency disease, for example some indigenous tribes convert good carbohydrate to alcohol which is consumed till a sodden drunkenness descends upon men, women and even their infants. Taken by an large, however, North Borneo, being predominantly rural and with no land-hunger, probably has less malnutrition than many

lother

other populations of comparable size.

19. Towards the end of the year preliminary steps were taken to lay down dietary scales for all Government Institutions and this work will be continued during 1953.

20. A pilot scheme for the supply of locally-produced soya bean milk to mothers and children was started in the Hospitals and Health Clinics.

21. <u>Health Centres</u>. The new Jesselton Health Centre was almost completed by the end of the year. Part of it will be used as a laboratory to serve Jesselton Hospital and for the undertaking of the more complicated investigations from other Hospitals, until such time as the new Jesselton Hospital is built.

22. In the last quarter of the year the foundations of a second Health Centre were laid in Sandakan Town.

23. <u>Maternity & Child Welfare Work</u>. The greater part of the work done in the health centres consists of giving advice and pre and post-natal treatment to the mother, to the pre-school child and to infants. Where there is no special building for the purpose, either the hospital is used or a building is borrowed. At Sandakan the local Branch of the British Red Cross Society has not only provided a temporary building, but also a full-time trained European helper as well. At another station a temporary headquarters of the St. John Ambulance is staffed by members of the Medical Department who are assisted by voluntary workers.

24. At Keningau a number of native girls are being trained as village midwives by a full-time Health Visitor. In addition to her work at the hospital, the Health Visitor travels extensively visiting the people in their villages and holding clinics.

25. During the year 7,425 women and 16,086 children attended at the Colony's health centres and clinics. 2,182 visits were made to patients in their homes.

26. Of the 11,486 recorded births, only 835 occurred in Hospital. It is satisfactory to note that whereas last year there were 504 "births without complication" in the Colony's Hospitals this year the figure had risen to 734.

27. <u>Environmental Sanitation</u>. Elsewhere in this report it has been shown that while there should be no complacency, the general situation with regard to communicable disease is fairly stable with a tendency towards improvement. The notable exception occurs in the group of diseases contracted by consuming contaminated food and water. Deaths from diarrhoea and dysentery were higher than at any time since the war, and this is a reflection on the inadequacy of the present water supplies and night soil disposal arrangements.

28. Water supplies and sewage disposal continue to be a problem in all the major and most of the minor towns and with the limited health and public works staffs available, little progress could be made with planning or construction during the year. However, to offset the shortage of water at Jesselton which occurs during dry weather, a supplementary scheme involving pumping from a stream to the service reservoir with chlorination and filtration, was under construction and should be ready early in 1953. Plans were also being prepared for a piped supply of water to Tawau to replace the present system whereby water is drawn from a river liable to pollution. The problem generally has been laid before the World Health Organisation whose Regional Adviser will visit the Colony early in 1953. The urgency of the problems to be solved cannot be overestimated.

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29. It is now generally accepted that the old narrow, dark and relatively airless shophouse of 80'x 20' is a predisposing cause of respiratory disease, and more especially pulmonary tuberculosis. The dimensions of new shophouses will be either 30'x 40' or 30'x 50'. At Jesselton the first block of permanent new shophouses was completed during the year. In the town areas the housing shortage is still acute, but the erection in 1952 of 54 quarters for senior and 154 quarters for junior officers, has considerably eased the situation in the case of Government Servants. The plans of all urban buildings are passed by a Medical Officer of Health before they are approved by the Local Authority.

30. <u>Port Health Work</u>. Each of the coastal towns presents its own special problems in relation to the possible introduction of one of the major diseases from outside. Medical Officers have been painstaking in their efforts to ensure supervision of ships and particularly of small vessels from the neighbouring territories. To counter the risk of smallpox being brought in by craft calling at unauthorised landing places, and intensive vaccination campaign was carried out in the coastal areas.

31. <u>Malaria Control</u>. It is interesting to note that although eighteen months have elapsed since the discontinuance of what was admittedly incomplete residual house-spraying in certain urban areas, there has been no resultant increase in malaria.

32. During the year greater attention was paid to permanent anti-malaria measures, and the established routine of larvae control was maintained.

33. The Malaria Research Unit after many years of useful investigation was finally wound up in June 1952.

34. In some areas malaria incidence has decreased and it is thought that this is due to systematic use of paludrine which is readily available as a free issue to groups such as schools and estate labourers.

PART III

VITAL STATISTICS

- The estimated population on 30th September, 1952, was 348,404.
- Births. For the whole year there were 11,486 (5,927 males; 5,559 females) representing an increase of 1,033 over last year's figure of 10,453.
- 3. Birth Rate. 34.1 per mille.
- Deaths. There were 4,530 deaths during the year (2,505 males and 2,025 females), as compared with 4,503 deaths in 1951.
- 5. Death Rate. 13.4 per mille.
- 6. <u>Infant Mortality Rate and Neo-natal Mortality Rate</u>. There were a total of 1,109 deaths among infants under 1 year and 415 of these occurred in the first month of life. This gives (corrected) infant and neo-natal mortality rates of 96.1 and 34.7 respectively.
- 7. <u>Maternal Mortality</u>. As recorded in previous reports it/considered that the registration of still-births is so incomplete as to render any calculation of the maternal mortality rate valueless.

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- 8. Prior to March, 1951, when a new Registration of Births and Deaths Ordinance came into operation, births and deaths had been registered under an Ordinance of 1884 which provided for approximately 24 Registrars and Deputies only over an area of 29,184 square miles with very poor communications. Reports made at first hand from towns and villages near to a Registrar were fairly accurate, but from the remoter districts reports were brought by a Native Chief or Headman when visiting District Headquarters, which might be at infrequent intervals so that accuracy was extremely doubtful and could not be properly checked.
- 9. The new Ordinance provides for the appointment of Native Chiefs, School-masters and other suitably literate persons as Assistant Registrars in a ratio of one such officer to approximately 2,000 of the population. Forms are distributed to village headmen, who are instructed to take a form to the nearest Assistant Registrar promptly when a birth or death occurs. The new Ordinance has proved in operation to be a considerable improvement on the old. However, the difficulties of remote, scattered villages, poor communications, ignorance and illiteracy cannot be overcome in a day. Causes of death are still unavoidably entered, in the majority of up-country cases, by unqualified persons. In urban areas registration returns are more accurate on account of the greater proportion of educated persons to be found there. The relative ease of registration and the preponderance of Chinese who now have a keen appreciation of the legal value of birth and death certificates are also contri-It is again necessary to emphasise butory factors. that figures should be treated with reserve, the following being of sufficient accuracy, however, to indicate trends:-

Table VIII.

	1947	1948	1949	1950	1951	1952
Total Recorded Births	6,630	6,716	8,145	9,241	10,453	11,486
Birth Rate	19.6	19.6	23.3	26.4	31.2	31.00
Total Recorded Deaths	5,126	4,552	4,717	4,126	4,503	4,530
Death Rate	15.1	13.3	12.3	11.8	13.3	13.4
Total Infant Deaths	ALC: THE	868	835	1,006	1,087	1,109
Infant Mortality Rate	- 12	136.0	105.5		107.8 Correct	96.1 (Correc
			augus.			ted)

10. In his review of the results of the 1951 Census, the Superintendent of Census has revealed two facts of considerable significance, first that the Murut people, an inland hill tribe which number some 20,000 odd souls, is in danger of extinction, and secondly, that the Chinese people are more rapidly increasing than are the indigenous peoples. The relative increase is so great that if present trends are maintained the Chinese who now represent about 22% of the total population will have surpassed in numbers the indigenous native by the end of the century.

11. It is probable that in both cases a high infant mortality among natives is a major cause to which is added in the case of the Muruts a real infertility. It is hoped that these two problems will be the subjects of active research in 1953.

. PART IV.

HOSPITALS AND DISPENSARIES

1. In pursuance of a policy laid down in the previous year by which the number of hospital beds in the Colony was to be greatly reduced and related more realistically to the number of patients requiring hospital treatment and to the available staff, specific allocations were decided upon, and indents for domestic and technical equipment placed with the Crown Agents were based on these allocations. The number of beds in the Colony's hospitals are as shown below:-

General	Hospitals.	At Jesselton and Sandakan (100 beds each).	

Cottage Hospitals. Tawau (45 beds); Kudat (32 beds); Beaufort (32 beds); Keningau (32 beds) and Labuan (32 beds).

There is a <u>Mental Hospital</u> (100 beds) and a <u>Leprosy</u> <u>Hospital</u> (75 beds) at Sandakan.

2. Considerable progress was made in the rebuilding programme. In September Her Royal Highness the Duchess of Kent visited Sandakan where, having graciously consented to the new hospital bearing her name, she formally opened the building which it is expected will be ready for occupation early in 1953.

3. Work began on a new Cottage Hospital at Kudat; additions and minor repairs were made to the Cottage Hospitals at Beaufort, Labuan and Tawau. It now remains to build new hospitals at Jesselton and Keningau.

4. At Jesselton a suitable site has been selected and the plans are ready. The Government is now considering how the building of a new modern hospital should be financed. Plans have also been prepared for a group of buildings to replace the rapidly deteriorating Keningau Hospital.

5. Dispensaries are widely scattered over the Colony and are usually dependent for supplies and overall supervision on the Medical Officer of the nearest hospital. Dispensaries are situated at the following places:-

Kota Belud	-	20	beds
Tambunan	-	10	"
Pensiangan	-	10	11
Tenom	-	10	"
Prison (Jesselton)	-	10	
Papar	-	10	"
Semporna	-	5	"
Ranau	-	5	"
Lahad Datu	-	10	
Sipitang	-	5	"
Kuala Penyu	-	5	"

The follwing stations have dispensaries with no beds:-

Bandau, Tandik, Weston, Mempakul, Tuaran, Beluran, Trusan, Tongod and Lamag, Tenghilan, Tulid, Bundu Tuhan and Sepulot.

The work performed at these institutions is summarised in Part II of this Report.

6. During the year two experimental travelling dispensaries were set up; a launch on the Kinabatangan and a motor van dispensary on the principal roads leading from Jesselton.

7. The River Dispensary presents problems of maintenance and administration which have not yet been solved and it will be a matter for further trial to see whether it will become a feasible project.

8. The Mobile Dispensary at Jesselton, however, has been an unqualified success. In the seven months which have elapsed since its inauguration, it has dealt with 8,829 patients, almost all of whom were new cases. In addition the dresser performed 3,417 vaccinations. The work is carried out in accordance with a regular schedule.

9. The Mental Hospital at Sandakan is in urgent need of replacement, but the difficulty of staffing the proposed interterritorial Mental Hospital in Brunei has caused some concern to the Governments of all three territories. It is therefore proposed that the several medical authorities will review the situation in the near future before proceeding with the preparation of detailed plans.

10. At the close of the year there were 87 patients (Males 62; Females 25) in the Mental Hospital. There were 38 admissions, 8 deaths and 12 patients were discharged as cured.

11. The Leprosy Hospital at Berhala Island near Sandakan has fallen into a sad state of disrepair, and it will be a matter for early consideration as to whether or not it should be rebuilt there or removed to the mainland where better supervision can be given. 13 patients were admitted to the settlement during the year, 8 were discharged as cured and 2 died. There were 59 patients as on 31st December, of whom 42 were men and 17 women.

12. <u>Hospital Visiting Committees</u>. Monthly visits were made to all but the smaller dispensaries.

PART V.

TRAINING

1. In the past all branches of the Medical Department have been greatly hampered by lack of trained and trainable Junior Service Officers.

2. In the immediate post-war years, it was not practicable to start a training scheme, both on account of lack of teachers and also of pupils. The medical officers, the only teachers available, were too busy treating the many persons in urgent need of attention, to have time for other duties; while because of the hiatus of the war years were insufficient potential recruits with the requisite standard of education.

Later, when a teaching team was provided by UNICEF,

3.

the state

many

shortage of junior staff prevented full advantage from being taken of its services. In the absence of replacements, medical staff at/out-stations could not be withdrawn for training.

4. By 1952 conditions had sufficiently improved to enable a start to be made on tackling the problem, which had grown in urgency. Not only were new hospitals being built in the towns which would require skilled staff, but the need to expand the medical service among the predominantly native population of the rural areas had become increasingly apparent.

5. During the year the UNICEF team of sister-tutors, which had accomplished much in difficult circumstances, was replaced by a team from the World Health Organisation. The senior establishment of medical officers was brought to full strength and a Colony Matron was appointed to assist in the building up of an adequate nursing service. At the end of the year there was promise that the senior nursing sister vacancies would soon be filled.

6. These various factors played their part during the year in the detailed planning of a vigorous campaign to put the training of nurses and dressers on a lasting basis. This has been done, but not without some ruthless cutting and pruning. Several outstation dispensaries had to be closed and the staff at others reduced. However, all concerned have co-operated, realising that no real expansion of the services can come about until the existing situation is consolidated. A target date of $2\frac{1}{2}$ to 3 years has been set for this purpose.

7. No less important has been the creation of a Junior Health Inspectorate and the planning for its training.

8. Health Inspectors are normally expected to possess the Certificate of the Royal Sanitary Institute, but the nearest training school for that diploma requires that the recruit should possess the Senior Cambridge Certificate before he is accepted. There appeared to be small chance of the Colony being able to furnish twelve young men so qualified, and accordingly plans were made for a local course comprising three years of theoretical and practical study, which it is hoped will turn out a very useful technician. This course will commence early in 1953.

PART VI.

MISCELLANEOUS SERVICES

1. <u>Laboratory Service</u>. At present there is no competent clinical pathological laboratory in the Colony. Nearly all such work performed is that which is normally undertaken in the side rooms of a modern hospital ward.

2. Water analysis, which is particularly important in planning the Colony's water supplies, has to be undertaken in Singapore.

3. In due course, however, the excellent equipment presented by UNICEF for a serological laboratory will leave little to be ordered when the competent technician at present being recruited under the Colombo Plan, arrives. It is hoped that this officer will train local personnel and so enable the building up of a sound Central Laboratory staff for the Colony and ensure that lesser procedures are carried out in a reliable manner in the various hospitals. It is expected that the internal air service, soon to commence, will be used extensively to convey specimens to the Central Laboratory for examination and report.

4. <u>Dental Service</u>. During the year a dental officer arrived in the Colony and set up a surgery in the building of the first class ward at the Jesselton Hospital. This officer, the only properly qualified dentist in North Borneo, is fully occupied with dental work, but is nevertheless endeavouring to build up a team which it is hoped may eventually form the nucleus of a Colony dental service. A senior dresser has been sent to Penang for a six months course and it is proposed to recruit a dental mechanic in 1953.

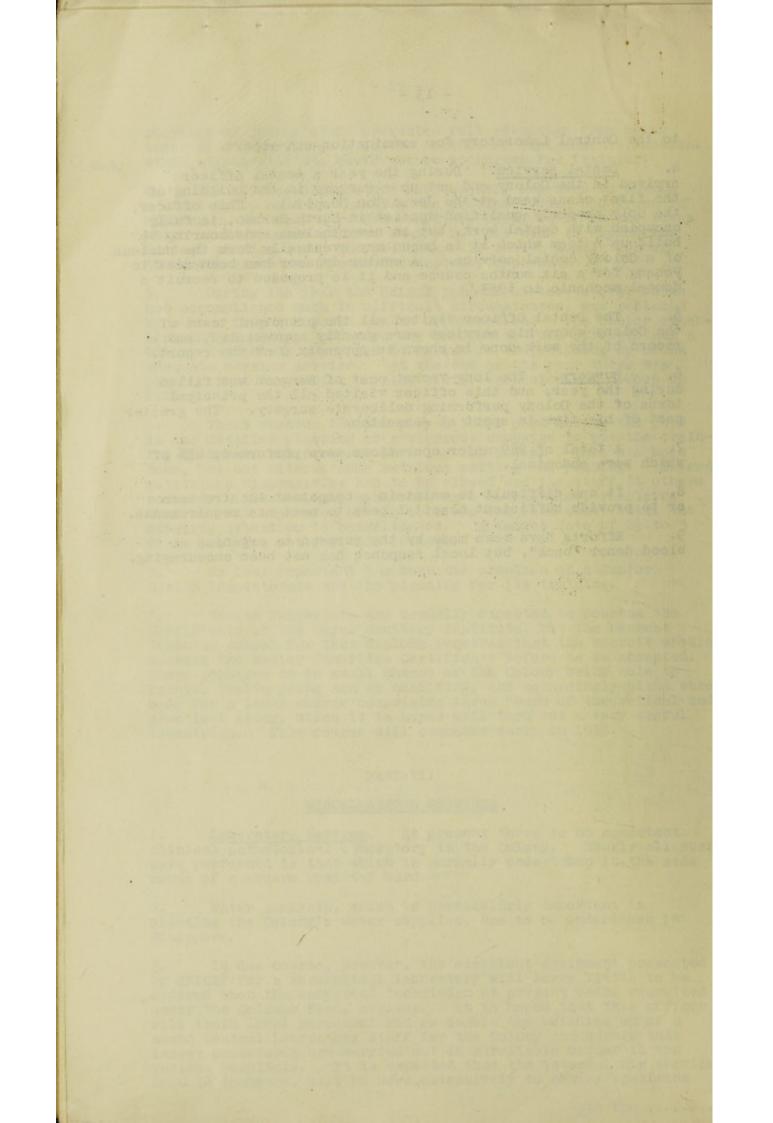
5. The Dental Officer visited all the principal towns of the Colony where his services were greatly appreciated, and a record of the work done is shown in Appendix C of the report.

6. <u>Surgery</u>. The long-vacant post of Surgeon was filled during the year, and this officer visited all the principal towns of the Colony performing deliberate surgery. The greater part of his time is spent at Jesselton.

7. A total of 289 major operations were performed, 45% of which were abdominal.

8. It was difficult to maintain a competent theatre team or to provide sufficient hospital beds to meet his requirements.

9. Efforts have been made by the surgeon to organise a blood donor "bank", but local response has not been encouraging.



APPENDIX A.

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GOVERNMENT HOSPITALS SUPERVISED BY A DOCTOR.

RETURN OF MORBIDITY & MORTALITY FOR THE YEAR, 1952

CLASSIFIED IN ACCORDANCE WITH (A MODIFICATION OF) THE INTERMEDIATE LIST OF THE INTERNATIONAL STATISTICAL CLASSIFICATION, 1948.

a state of the		STATISTICAL CLASSIFICATION, 1940.				
Intermediate List Number	Detailed List Numbcre	CAUSE GROUPS.	Out-putient let Attendances.	In-putient Admitted	Dicd in Hospital	Dcuthe Rcgie- tcred as occurring in the Colony for 1952.
$\begin{array}{c} H\\ H\\ \hline H\\ \hline \\ A & 1\\ A & 2\\ \hline \\ A & 3\\ \hline \\ A & 3\\ \hline \\ A & 5\\ \hline \\ A & 5\\ \hline \\ A & 3\\ \hline \\ A & 5\\ \hline \\ A & 3\\ \hline \\ A & $	001 - 008 010 011 012, 013 014 - 019 020 021 024 025 022, 023) 026 -029) 030 - 035 040 041, 042 043 044 045 044 045 046 047, 048 050 051 052 055 056 057 058 060 061 062 080 081, 083 084 085 091 092 094 100 101 102 - 103 106 - 108	Tuberculosis of Respiratory System Tuberculosis of meninges and Central nervous system Tuberculosis of intestines, perito- neum & mesenteric glands Tuberculosis, all other forms Congenital Syphilis Early syphilis (Primary & Secondary) Tables dorsalis General paralysis of insane All other Syphilis Gonococcal infections: (1) Acute (2) Other Typhoid Fever Paratyphoid Fever and other Salmonella infections Cholera Brucellosis (undulant Fever) Bacillary Dysentery Amoebiasis Other unspecified forms of Dysentery Scarlet Fever Streptococcal sore throat Erysipelas Septicaemia and Praemia Diphtheria Whooping Cough Meningococcal infections Plague Leprosy Tetanus Anthrax Acute infectious encephalitis Late effects of acute Polionyelitis & acute infectious encephalitis Babies Louse-borne epidemic typhus Mite-borne typhus Other and unspecified typhus	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	LI 234 2 29513-1 2077 - 22751312313-29-1 - 48-10	46 1 HANIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	527 2 1 6 41 - - - - - - - - - - - - -
	111	Malariae Malaria (Quartan) Falciparum Malaria (Malignant tott tertian)	/ 262	1 237	- 9	9 3 48

Intermediate List Number.	Detailed List Numbers.	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted.	Died in Hospital	Deaths Pegis tered ds occurring in the Colony for 1952.
(a)	115	Blackwater Fever	-	4	-	5.56
(e)	113, 114) 116, 117)	Other and unspecified forms of Malaria	3,477	513	26	747
A 38(a)	123.0	Schistosomiasis vesical (S. haematobium)		-		
(b)	123.1	Schistosomiasis intestinal (S. mansoni)	.+		-	-
(c) A 39	123.3 125	Other & unspecified schistosomiasis Hydatid Disease		-	-	2 1
A 40(a)	127	Onchocerciasis Loisais	an I	Ē	Ξ	E A
	1 8 1	Filariasis (bancrofti) Other filariasis	1	1	sI	
A 41 A 42(a)	129 126	Ankylostomiasis Tapeworm (infestation) and other	316	53	1120	1
(b)	130.0	cestode infestations Ascariasis	1,210	- 131		ī
	130.3	Guinea worm (dracunculosis) Other disease due to helminths	896	17		- 4
	130.1,130.2			1980-	388	IC AL
A 43(a)	0.37 0.38	Lymphogranuloma venereum Granuloma inguinale, venereal	es 1	1	-	- N
	0 39 049	Other & unspecified venereal disease Food poisoning infection and	241	.042	041	- AA
(e) (f)	071	intoxication Relapsing Fever	1	6	-	2
(f)	072	Leptospirosis icterohaemorrhagica (Weil's Disease)	1	4	-	paller a
(g) (h)	073 087	Yaws Chicken-pox	1,292	74	e <u>E</u> r.	1 3
(i) (j)	090 095	Dengue Trachoma	22	1	1	1 15
	096.7	Sandfly Fever Leishmaniasis gambiensis	1 300		1	
(m)	121(a)	Trypanosomiasis gambiensis Trypanosomiasis rhodesiensis	and I	-	1	
	(b) (c)	Other and unspecified trypanosomias:	is - 1,082	48	7	1. 22 2
	131	Dermatophytosis (Kurap, etc.) Scabies	387	5	-	1. 200
(p)	$\left[\begin{array}{c} 036,\ 054,\\ 059,\ 063,\\ \end{array}\right]$	and a second and the second se	253	57	9 1	10
	064, 070,) 074, 086,)	All other diseases	200	21	1.00	10
I) F	088, 089,)	scote tufersticke sneephelitie	5 Ame	15H	1	17.11
a i	096.6,096.8	Classified as infective and	Kos I	1 2 4		1: 12 4
	132 - 134) 136 - 138)	parasitic	101	59	-	
A 44	140 - 148	Malignant neoplasm of buccal cavity and pharynx	1000 -	1	-	102 2
A 45 A 46	150	Malignant neoplasm of stomach	2	23	10	15
A 47	152, 153	Malignant neoplasm of intestine, except rectum	100-	8	3	3
A 48 A 49	154 161	Malignant neoplasm of rectum Malignant neoplasm of larynx	1. 2. V	ī	ī	3 - 2
A 50	162,163	Malignant neoplasm of trachea and o bronchus and lung not specified	r -	5	3	5
	1 7	as secondary. A 51	1.			

- 2 -

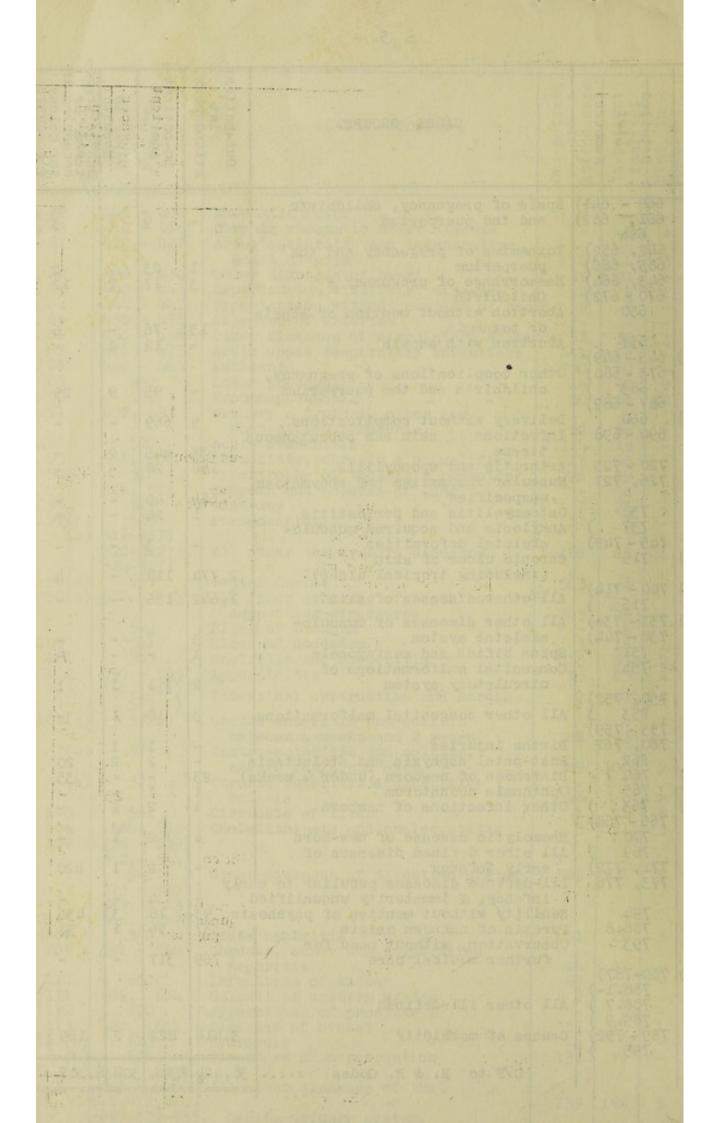
		- 3 -				
List List N u m ber	Detailed List Numbers.	CAUSE GROUPS.	Out-patient Attendances	In-patient Admitted	Dicd in Hospital	Deaths Registered as occurring in the Colony
51 52	170 171	Malignant neoplasm of breast Malignant neoplasm of cervix of	3	3	1	4
53	172 - 174	Malignant neoplasm of other and	The Age	9	7.14	1.8
54	177	unspecified parts of uterus Malignant neoplasm of prostate	22	10	- (1)	3
\$ 55	190, 191	Malignant neoplasm of skin	1	2	-	1 62
1 56	196, 197	Malignant neoplasm of bone and connective tissue	_	1	1	
1	155 - 160) 164, 165)	Malignant neoplasm of all	DRAT	1	11	17
NES4	175, 176)	Wariguan neobrasm or arr		32	11	13
1 02 1	178 - 181) 192 - 195)	Other and unspecified sites	10-	12.10	12.3	2 08 1
EP.	198, 199)	ALCON THE STATE OF		5.		
A 58 A 59	204 200 - 203,	Leukaemia and aleukaemia Lymphosarcoma and other neoplasms			C-	1
60	205 210 - 239	& haematopoietic System Benign neoplasms and neoplasms of	1	9	1	1
		unspecified nature	12	30 13	31	- 5 1
A 61 A 62	250, 251	Nontoxic goitre Thyrotoxicosis with or without goitre	19	13	1 2	3
A 63. A 64(a)	260 280	Diabates Mellitus Beri-beri	15	10 21	ī	-
(b)	281	Pellagra	1	2	- -	41
	282 283 - 286	Scurvy Other dificiency states	154	29	-4	18
A 65(a)	290	Pernicious and other hyperchromic	44		4	10
(b)	291	Anaemias Iron deficiency anaemias (hypochromic)	2	30	ī	
A - 66(a)	292, 293 241	Other specified & unspecified angemias	882	79	2 9	18 36
(b)	240	All other allergic disorders	Sec.	1.1	2	30
11-1	242 - 245)	endocrine,	48	7	-	(a-Those
1 6916	253, 254) 270 - 277)	metabolic and blood diseases	<u>v</u> ra	1-1	2-1	ka-
the state	287 - 289) 294 - 299)					
A 67	300 - 309	Psychoses	-	21	-	4
A 68	310 - 324) 326)	Psychoneuroses and disorders personality	3	16	1-1	-01 4
A 69 A 70	325 330 - 334	personality Mental deficiency Vascular lesions affecting central	34	47	-	E TOP
1. 1. 8.	H (67 \$ 18 (21))	nervous system	190-	7	2	10
A 71 A 72	340 345	Non-meningccoccal Meningitis Multiple sclerosis	1 -		-	2
A 73 A 74	353	Epilepsy	16	8	1	8
A 74 A 75 A 76	370 - 379 385	Inflammatory diseases of eye Cataract	17	103 25	-	-
A 76 A 77(a)	38.7	Glaucoma Otitis externa	407	1 9	-	-
(b)	391 - 393	Otitis media and mastoiditis	254	34	- 00	1
A 78(a)	394 380 - 384)	Other inflammatory disease of ear	219	12	-	1.3.4
	386, 388)	All other diseases and conditions of eye	680	157	1	1 see
(b)			000	1.51	-	01.1
2.	350 -352) 354 -357)	All other diseases of the nervous system and sense organs	338	89	4	4
	360 - 369)	anore set those the second	E B	6.45		
	395 - 398)	<u>/</u> A 79		100	Concel	

1		- 4 -		1 1 1		
Intermediate) List Number	Detailed List Numbers.	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted	Died in Hospital	Deathe Regis- tered as occurring in the Colony for 1952.
A 79 A 80 A 81	400 - 402 410 - 416 420 - 422	Rheumatic Fever Chronic rheumatic heart disease Arteriosclerotic and degenerative	2 -	-2	-1	49
A 82	430 - 434	heart disease Other diseases of heart	4	4 31	36	-
A 83 A 84	440 - 443	Hypertension with heart disease Hypertension without mention of heat		46	1	-
A 85 A 86 A 87	450 - 456 460 - 468 470 - 475	Diseases of arteries Other diseases of circulatory system Acute upper respiratory infections	n 52 681	32 18	3	4
A 88 A 89	480 - 483 490	Influenza Lobar pneumonia	1,730 14	60 90	- 9	127 22
A 90 A 91	491 492, 493	Bronchopneumonia Primary a typical, other and unspecified pneumonia	30 20	168 34	22 6	162 547
A 92 A 93	500 501, 502	Acute bronchitis Bronchitis, chronic & unqualified	2,224 1,217	219 98	10	4
A 94 A 95 A 96	510 518, 521 519	Hypertrophy of tonsils & adenoids Empyema and adscess of lung Pleurisy	208 - 7	89 4 21	1019	31 5 9
A 97(a) (b)	523 511-517)	Pneumoconiosis	27	3		-
	520 -522) 524-527)	All other respiratory diseases	1,168	45	1	(1740)
A 98(a) A 99(b)	530 531 - 535	Dental Caries All other diseases of teeth and supporting structures	583 243	6 29	18	
A100	540 541	Ulcer of stomach Ulcer of duodenum	3415	16 18	2	2 3 13 2
A 101 A 102 A 103	543 550 - 553 560, 561)	Gastritis and duodenitis Appendicitis	13	59 83	24	and the second second second
A104(n)	570)	Intestinal obstruction and hernia Gastro-enteritis and colitis	7	69	4 Sals	1
(b)	571.1	between 4 weeks and 2 years Gastro-enteritis and colitis,	388 589	53 100	10	175 55
(c)	572	ages 2 years and over Chronic enteritis & ulcerative	- 46	-6	-	2
A 105 A 106	581 584, 585	Cirrhosis of liver Cholelithiasis and cholecystitis	1 3	16 11	83	35
A 107	536 - 539) 542, 544) 545)	Other diseases of digestive system	1,585	228	5	6.
	573 - 580) 582, 583)	entegeoodent montegitle pie solerosie	-008 -008	0		
A 108 A 109	586, 587) 590 591 - 594	Acute nephritis Chronic, other and unspecified	31	26	3	48
A 110	600	nephritis Infections of kidney	14 69	27 22	-	39 4 1
A 111 A 112 A 113	602, 604 610 620, 621	Calculi of urinary system Hyperplasia of prostate Diseases of breast	2 - 26	4 2 13		-
A114(a)	613 634	Hydrocele Disorders of menstruation	4 132	5 22	-	-
(c)	601, 603) 605 - 609) 611, 612, 614	All other diseases of the	139	166	5	1
	-617,622-633 635-637.	, Genito-urinary system. /A 115		1999	0.00	5
			and the second s			and the second second second

and the second second

		- 5 -				
Intermediațe List Number	Detailed List Numbers.	CAUSE GROUPS.	Out-patient lst Attendances.	In-patient Admitted	Dicd in Hospital.	Deaths Regis- tered as occurring in the Colony for 1952.
A 115	640 - 641) 681, 682) 684		-	9	1	3
A 116 A 117	642, 652) 685, 686) 643, 664) 670 - 672)	Toxaemias of pregnancy and the puerperium Haemorrhage of pregnancy & Childbirth	1 3	23 17	21	2 12
A 118 A 119 A 120(a)		Abortion without mention of sepsis or toxaemia Abortion with sepsis	15	76 12	ī	6 -
	673 - 680) 683 687 - 689)	Other complications of pregnancy, childbirth and the puerperium	-	95	9	29
(b) A 121	660 690 - 698	Delivery without complications Infections of skin and subcutaneou	9 s	669	-	-
A 122 A 123	720 - 725	tissue Arthritis and spondylitis Muscular rheumatism and rheymatism	1,635 148	445 28	2-	-
A 124 A 125	730 737)	unspecified Osteomyelitis and periostitis Ankylosis and acquired musculo-	684 1	40 24	-	-
A 126(a)	745 - 749) 715	skeletal deformities Chronic ulcer of skin	-	3	-	-
(b)		(including tropical ulcer) All other diseases of skin	2,774		-	4
(c)		All other diseases of musculo-		100		1
A 127 A 128	738 – 744) 751 754	skeletal system Spina bifida and meningocele Congenital malformations of	3	7_	-	=
A 129	750, 752)	circulatory system	2	1	1	1
	753) 755 - 759)	All other congenital malformations	. 3	10	1	-
A 130 A 131	760, 761	Births injuries Post-natal asphyxia and atelectasi:	- s	1 2	1 2	20
A 132(a) (b) (c)	764 765 763)	Diarrhoea of newborn (under 4 weeks Ophthamia neonatorum Other infections of newborn	s) 23 1 1	1 2		35
A 133	766 - 768)	Haemolytic disease of new-born	-	2	1	-
A 134	769) 771, 772)	All other defined diseases of early infancy	-	2	1	420
A 135	773, 776	Ill-defined diseases peculiar to el infancy, & immaturity unqualified	a –	4 18	- 7	1, 20
A 136 A 137(a) (b)	794 788.8 793	Senility without mention of psychos Pyrexia of unknown origin Observation, without need for	337	56	31	430 38
(c)	780-787)	further medical care	769	317	-	
	788.7) 789.9) 789 - 792)	All other ill-defined Causes of morbidity	3,414	422	2	169
	795)	C/F to E. & N. Codes	38,424	7,394	304	4,307

- 5 -



"E" CODE. ALTERNATIVE CLASSIFICATION OF ACCIDENTS,

POISONINGS, AND VIOLENCE (EXTERNAL CAUSE).

1	- 2 -	· · · · · · · · · · · · · · · · · · ·		and the second se	-		1
mediate	List Number.	Detailed List Numbers.	CAUSE GROUPS.	Out- patient lst Atten- dances.	In- patient Admitted	Died in Hospital	Deaths Regis tered as occurring in the Colony
2E	No.	The little	B/F	38,424	7,394	304	4.307
AE	138	E810-E835	Motor vehicle accidents	20	34	3	3
AE	139	E800-E802) E840-E866)	Other transport accidents	233	35	2	1
AE	140 141 142 143	E900-E904	Accidental poisoning Accidental falls Accident cause by machinery Accident caused by fire and	16 810 80	7 184 27	1 2 -	4 2 1
5	144	T 08	explosion of combustible material Accident caused by hot substance corrosive liquid, steam and	21	8	380 386 -	5
AE AE AE		E919 E929 (a) E920 (b) E923 (c) E927	radiation Accident caused by firearm Accidental drowning & submersion Foreign body entering eye and adnex Foreign body entering other orifice Accidents caused by bites and		41 7 2 9 11	- - 1	- 38 -
		(d) E928	stings of venomous animals and insects Other accidents caused by animals	150 26	29 6	- 10	2 -
	-	(e) E910, E911 E913-E915 E921-E922 E924-E926 E930-E965	All other accidental causes	1,971	325	4	48
AE			Suicide and Self-inflicted injury Homicide and Injury purposely inflicted by other persons	-	12.9m-D	CR I	THE HAS
AE	150	Е990-Е999	(not in war) Injury resulting from operations of war.	38 -	17 -	en -	145 TAN
		L. R.	TOTAL -	42,106	8,136	318	4,421
		23 -	reate data same sainted	ALL (2001-04 2005-01 50	364	

"N" CODE. ALTERNATIVE CLASSIFICATION OF ACCIDENTS,

POISONINGS, AND VIOLENCE (NATURE OF INJURY)

	Ru bi				2
Intermediate List Number. Detailed List Numbers.	CAUSE GROUPS.	Out-patient let Attendances.	In-patient Admitted.	Died in Hospital.	Deaths Registered as occurring in the Colony
1 . A . BE . 3	reneport-neatéarité	19930	(588E-	A188.	1
1	B/Finester Int	38,424	7,394	304	4,307
AN 138 N800-N804	Fracture of skull	10\$100+	19	6	15
AN 139 N805-N809	Fracture of spine and trunk	4	20	1	5
AN 140 N810-N829	Fracture of limbs	39	103	Ten	AL INA
AN 141 N8 30-N8 39	Dislocation without Fracture	20	18	_	1
AN 142 N840-N848	Sprains and strains of joints and adjacent muscle	574	30		
AN 143 N850-N856	Head injury (excluding fracture)	67	. 25	205	-
AN 144 N860-N869	Internal injury of chest, abdomen, and pelvis	bas bas s.toris-0	13	2	5
AN 145 N870-N908	Laceration and open wounds	1,080	302	22(2)	7
AN 146 N910-N929	Superficial injury, contusion and crushing with intact skin surface	1,374	134		
AN 147 N930-N936	Effects of foreign body enter- ing through orifice	98	13	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AS 146
AN 148 N940-N949	Burns anotherago morth untilizion	232	47	12992	2 2
AN 149 N960-N979	Effects of Poisons	31	9	1	-
AN 150 N950-N959) N980-N999)	All other and unspecified effects of external causes	291	23	-	77
	TOTAL -	42,106	8,136	318	4,421

APPENDIX B.

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PATIENTS REGISTERED IN ANNEX A AS CLASSIFIED BY RACE.

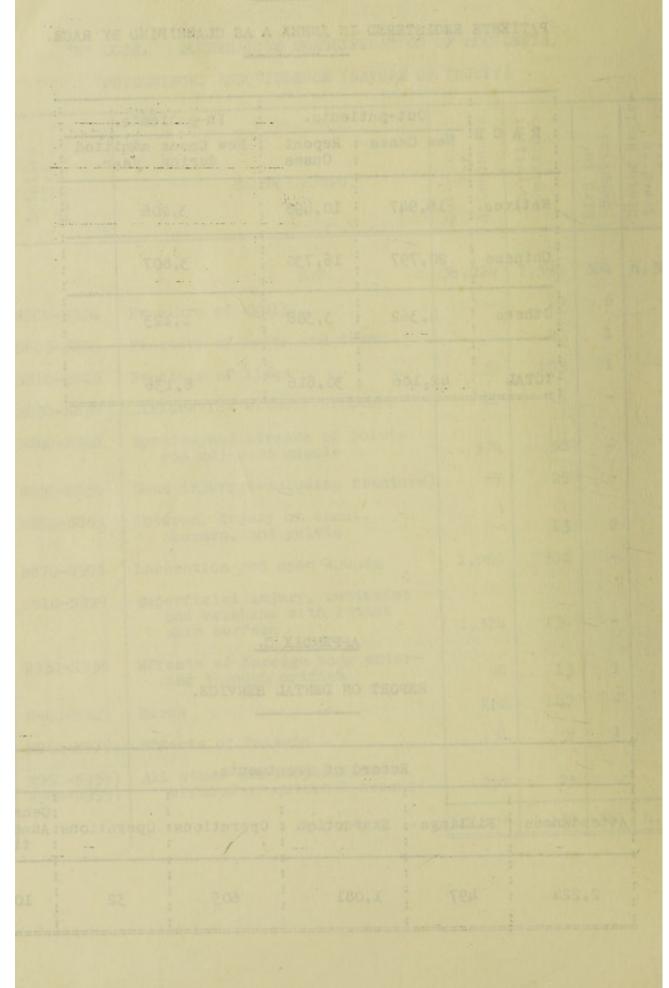
RACE	Out-pat:	ients.	: : In-patients.
	New Cases	Repeat Cases	New Cases admitted during year.
Natives	16,947	10,498	3,206
Chinese	20,797	16,730	3,807
Others	4,362	3,388	1,123
TCTAL \	42,106	30,616	8,136

APPENDIX C.

REPORT ON DENTAL SERVICE.

Record of Treatments.								
Attendances	Fillings	Extraction	Operations		General Anaesthe- tics.			
2,224	497	1,081	605	32	104			

ALL BURNER, LA



ANNUAL REPORT OF THE MEDICAL DEPARTMENT,

1953

PART I PUBLIC HEALTH.

- 1. General
- 2. Vital Statistics
- 3. Malaria Control
- 4. Tuberculosis
- 5. Intestinal Disorders
- 6. General Sanitation and Preventative Measures.
- 7. Nutrition

PART II HOSPITALS AND DISPENSARIES.

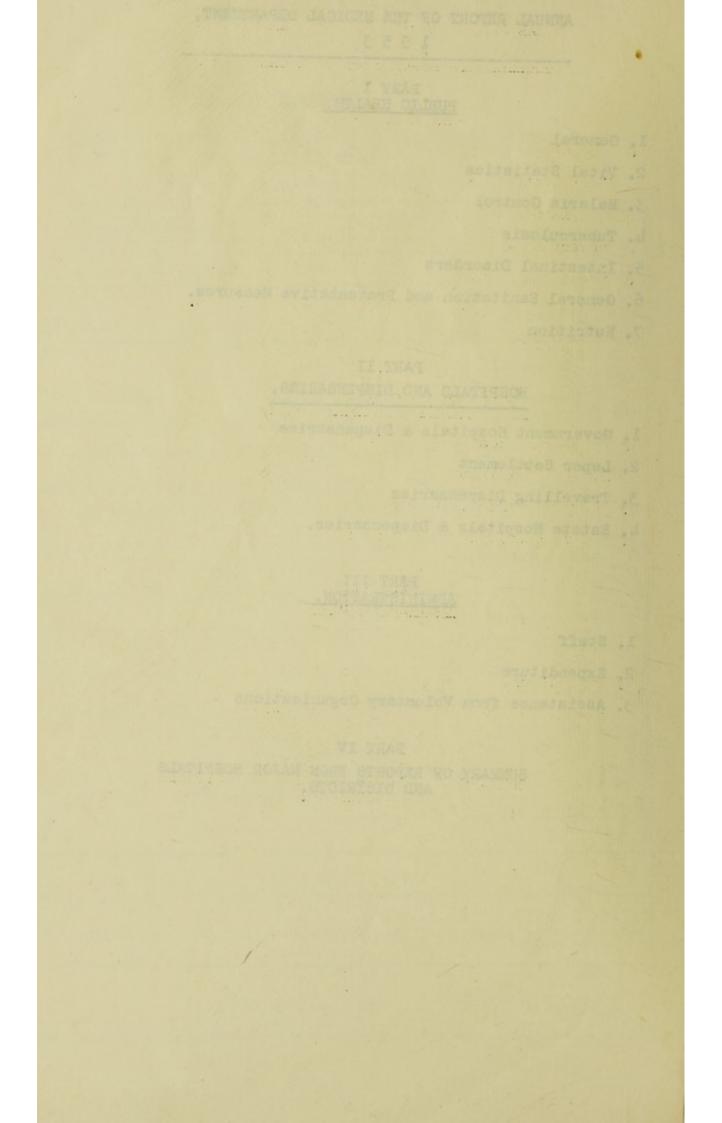
- 1. Government Hospitals & Dispensaries
- 2. Leper Settlement
- 3. Travelling Dispensaries
- 4. Estate Hospitals & Dispensaries.

PART III ADMINISTRATION.

- 1. Staff
- 2. Expenditure
- 3. Assistance from Voluntary Organisations

PART IV

SUMMARY OF REPORTS FROM MAJOR HOSPITALS AND DISTRICTS.



PUBLIC HEALTH.

1. GENERAL HEALTH.

On the whole the health of the population during the year 1953 was good. No epidemics of major infectious diseases were reported. The most important diseases causing chronic ill-health and diminished economic efficiency are - malaria, tuberculosis and intestinal complaints, including worm infestations. Although the control of these diseases is still far from complete, there are no reasons for supposing that their incidence has increased; in fact it may be safely assumed that there has been, on the whole, an improvement. There is evidence of an increasing public awareness of the effects of these diseases, notably in the case of tuberculosis. With improving sanitation consequent upon the rebuilding of many of the larger population centres throughout the Colony, it is reasonable to expect improvements in the public health. The year has been one of steady development in this sphere of medical and health services.

2. VITAL STATISTICS.

During 1953 the printed report of the census held in 1951 became available and will be of the greatest value in statistical assessment of the health of the various races of the Colony.

The Census Report calls attention to the striking difference in the survival rate of Chinese children compared with those of other communities. It is remarked that for maternal ages up to 29, almost 93% of Chinese children survive, whereas for natives in general a comparable figure is 70% and for Muruts in particular, only 50%. Even allowing for mis-statements it is clear that the infantile mortality rate amongst natives must be very high as compared/ compared with the urban Chinese communities. These facts constitute a challenge to the health services which cannot be ignored. One of the first steps which has been taken is to establish a first class training school for nurses and midwives with a view to improved services to the rural areas.

2

The standards of accuracy of registration of births and deaths continue to improve, but still leave much to be desired, particularly among the less literate sections of the population. For this reason statistics relating to such matters as maternal and infant mortality and morbidity from various causes are not reliable. In the larger centres and where certification is made by a medical practitioner the figures are naturally a great deal more accurate. Unfortunately the rural and less literate people are those who stand most in need of medical assistance and public health measures. The population decline among the Muruts, for example, is causing concern and, with a view to investigating the cause for this and suggesting a remedy, the Government has under consideration an investigation to be undertaken in conjunction with the University of Malaya.

Figures showing the births and deaths registered in 1953 and the past five years are given below. -

 Year
 1947
 1948
 1949
 1950
 1951
 1952
 *1953

 Births
 6,630
 6,716
 8,037
 9,064
 10,435
 11,486
 10,956

 Deaths
 5,136
 4,552
 4,298
 4,320
 4,503
 4,530
 4,247

 Excess of births
 2,164
 3,739
 4,744
 5,950
 6,956
 6,682

* For the period 1st October 1952 to 30th September 1953.

3. MALARIA CONTROL

Routine measures, namely permanent anti-malarial works for drainage, oiling and spraying with insecticides continued. A W.H.O. sponsored Pilot Scheme for the eradication of malaria is in progress in the neighbouring Colony of Sarawak. This project aims at the eradication of malaria by the spraying of dwelling houses with modern insecticides. Since it is probable that the vector of of malaria (<u>A.leucosphyrus</u>) is the same in both countries, the encouraging results so far obtained in Sarawak make it likely that similar methods may be successfully employed in North Borneo. Malaria is not a serious problem in built up areas and townships, but it is a serious source of chronic ill-health and sometimes a cause of death in rural areas and on estates.

During 1953 a visit was paid by the Malaria Advisor of the W.H.O. Western Pacific Region. Based on his advice and the results of the W.H.O. Pilot Project in Sarawak, it is probable that a scheme to reduce substantially, if not to eradicate malaria, will be formulated in the near future.

4. TUBERCULOSIS

Pulmonary Tuberculosis is one of the most serious single causes of mortality and morbidity in the Colony today. Increased attendances have been recorded at all hospitals and clinics, but this is more likely to be due to increased public awareness of the disease and to the availability of modern drugs for its treatment then to a real increase in the incidence of tuberculosis. During the year the North Borneo Anti-Tuberculosis Association (NOBATA) was formed and has received a great deal of popular support. It works in close co-operation/

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New designs of "shophouse" for the new towns and townships have been approved. These designs avoid the old style of a long, dark, narrow and ill ventilated building, and should be an important factor in the prevention of the spread of tuberculosis. The modern methods of treatment are proving successful, and this combined with the preventive activities of the Public Health Department should make a material contribution to the reduction of this disease. Plans are now being drawn up for the provision of buildings over and above the provision made in general hospitals, in which tuberculosis patients can be housed, fed and treated.

Valuable advice and exchange of information was received during the year from the tuberculosis advisor to W.H.O. Western Pacific Region.

5. INTESTINAL DISORDERS.

As in all tropical countries where standards of hygiene and sanitation have been low, bowel infections form a high proportion of the diseases encountered. However, improved sanitation both as regards disposal of night-soil and refuse and improved water supplies will substantially reduce the number of bowel diseases in the urban areas. The rural community still rely on unprotected wells and polluted rivers and streams as sources of water, whilst the disposal of excreta in most rural areas is unsatisfactory.

6. GENERAL SANITATION AND PREVENTIVE MEASURES.

The ordinary work of the Public Health Department continued during 1953, and will be greatly helped by the establishment, approved in 1953, of a training school for Health Inspectors. Twelve candidates/

candidates began training during the year on a syllabus equivalent to that of the Royal Sanitary Institute in Singapore. Early in 1954 a qualified teacher is to be made available through the generous assistance of the Colombo Plan. Towards the end of 1953 the World Health Organisation provided a consultant Sanitary Engineer to look into and advise the Public Works and Medical Department on enviromental sanitation, with particular reference to water supplies and sewage disposal.

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Schools have been frequently inspected and advice given in general sanitation. A mumber of school children have benefited from the inspections and treatment given by the Dental Surgeon.

7. NUTRITION.

Starvation as such is almost unknown in the Colony, but many of the rural population fail to take advantage of the fruits and vegetables which they grow, or which are readily available to them, as a result cases of avitaminosis are met with here and there. The remedy lies in proper education, particularly that of the housewife. To this end advice and diet supplements are made available at the Health Centres throughout the Colony. It is hoped that through the assistance of UNICEF these diet supplements can be considerably increased.

HOSPITALS AND DISPENSARIES.

1. GOVERNMENT HOSPITALS AND DISPENSARIES. (Appendix A)

dente de la contra - 6. -

During the year 10,933 in-patients were treated as compared with 10,369 in the previous year. Outpatients, of whom some 15,000 were treated by travelling dressers, numbered 271,715 as compared with 229.981 in 1952. These figures reflect no decline in the general · health of the populace but are the direct consequence of improved facilities and a bigger staff of doctors.

One of the most important features of 1953 was the opening for use of the Duchess of Kent Hospital at Sandakan. This fine modern building is one of 100 beds, with a large outpatients department connected to it. It is well equipped to treat medical, surgical and maternity cases and has full diagnostic X-ray facilities.

New Health Centres were completed and opered both in Jesselton and Sandakan. These Health Centres serve mothers and children. Ante and post-natel clinics are regularly held as well as infant welfare clinics. The local branch of the British Red Cross Society has been of the greatest assistance at both of these centres.

The main Colony pathological laboratory is temporarily situated at the Jesselton Health Centre.

A new Cottage Hospital of 32 beds was completed at Kudat during the year, and a new dispesary with 10 rest beds was built at Papar.

Site preparation for the new Jesselton Hospital was well advanced by the end of 1953 and foundations for the nurses quarters have been prepared. This hospital which will be of modern design, is to accomodate 125 patients in a two storey building. Provision has been made in the drawings and the structure will be especially strangthened for the addition of a third storey should this prove necessary. Plans for an inter-territorial mental hospital to serve North Borneo, Brunei and Sarawak had unfortunately to be abandoned. It will thus prove necessary to rebuild the existing mental hospital at Sandakan, which is not well suited to its purpose. The average number of patients treated in the Mental Hospital during the year was 100.

2. LEPER SETTLEMENT.

The Leper Settlement which is situated on Berhala Island in Sandakan Harbour has held an average of 50 patients throughout the year. The inmates have greatly benefited from the introduction of modern methods of treatment, and occupy themselves in fishing, boat building and agriculture. A volutary welfare committee is very active in providing comforts and occupational diversions for the inmates. An average of only 4 new lepers are admitted each year, so that it may be assumed that leprosy is not a serious problem.

The present buildings in the leper settlement are of temporary construction and are scheduled for replacement. The opportunity will be taken to rebuild the whole settlement at a better site on the island, which is more spacious and will give better facilities for agricultural pursuits.

3. TRAVELLING DISPENSARIES.

The River Dispensary Launch operating on the East Coast and a Motor Ambulance Dispensary operating from Josselton continued to give good service to the public.

4. ESTATE HOSPITALS AND DISPENSARIES.

The Labour Ordinance provide for employers of labour being required to furnish hospitals and modical supervision for their employees. Many of the larger estates and companies have dispensaries or small hospitals, and furing the year there were 33 places of employment at which such medical facilities were provided.

PART III

ADMINISTRATION.

1. STAFF

The Department is administered by a Director and a Deputy Director of Medical Services, with a Colony Matron and a Medical Accountant Store Keeper in Headquarters at Jesselton. During the year an establishment of 12 medical officers was maintained, in addition to the Colony Surgeon and Dental Surgeon. Teaching was supplemented by W.H.O. Sister Tutors. At the end of the year a W.H.O. Tutor was stationed in Sandakan and the school fully equipped and prepared to start nursing training for male and female nurses in January 1954. A W.H.O. Public Health Sister Tutor was stationed in Jesselton. Teaching has been further supplemented by the valuable work done in this respect by a laboratory technician made available under the Colombo Plan. In addition 12 probationary health inspectors have been recruited and teaching begun.

In April the Colony received a visit from Dr. Wilson Rae, C.M.G., Deputy Chief Medical Officer of the Colonial Office, whose experience and advice was greatly appreciated. Dr. I.C. Fang, Regional Director of the Western Pacific Office of W.H.O. also visited the Colony in October. The visit of a W.H.O. Specialist Ophthalmic Surgeon for a short period in 1952 served to call attention still more forcibly to the need for services in regard to eye diseases in general and the prevention of blindness in particular. Approval was sought and obtained in 1953 for the appointment of a Specialist Ophthalmic Surgeon to serve the three Borneo Territories of North Borneo, Brunei and Sarawak. An officer on the Sarawak Establishment was selected and has been granted a W.H.O. Scholarship in ophthalmology which he will undertake in 1954.

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A table showing the medical and health staff of the Colony, including mission and private doctors appears at Appendix B.

2. EXPENDITURE.

The estimated expenditure on medical services from Colony funds in 1953 including personal emoluments, amounted to \$2,025,017. This figure refers to Medical Department expenditure only, and does not include sums spent in the towns on such municipal conservancy measures as scavenging, removal of night-soil and inspection by Sanitary Board officials within the Sanitary Board areas. Neither does it include capital expenditure on new buildings nor the generous aid which the Colony continued to receive during the year under Colonial Development and Welfare Schemes, and from the United Nations International Childrens' Emergency Fund, the World Health Organisation and the Colombo Plan.

3. ASSISTANCE FROM VOLUNTARY ORGANISATIONS.

During the year valuable practical assistance continued to be received from the North Borneo Branches of the British Red Cross Society and the St. John Ambulance Association. The Services of a whole time Red Cross worker were much appreciated, particularly by those sections of the urban and rural communities to which she was able to give assistance.

PART IV SUMMARY OF REPORTS FROM MAJOR HOSPITALS AND DISTRICTS.

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1. JESSELTON.

The Jesselton Hospital, normally of 100 beds, contained for the greater part of the year far more than this number, which is accounted for by the presence of many tuberculosis patients. At the end of the year there was an average of between 80 and 90 tuberculosis patients under treatment in the hospital. Some of the buildings are becoming very dilapidated, as they are of temporary construction, pending building of the new Jesselton Hospital.

During the year some improvements were made in the number of Junior Staff available, many of these being new trainees. Additional out-patient facitlities were provided during the year, so that emergencies, accidents and other admissions could be exceeditiously dealt with throughout the 24 hours. Diets were reviewed and improved and better provision has been made for 2nd Class diet scales and the provision of a Mohammedan cook, both of which arrangements will come into force during 1954.

Other improvements which were brought about consist of improved lighting and increased number of telephone lines; improved hospital visiting hours and additions to the space available for the Dental Department. It was found necessary to arrange for almost continuous repairs to buildings, throughout the year.

During the year hospital accommodation was made available at the Kapayan Police Barracks at present giving accommodation for 15 patients and 3 isolation cases. From June to August a few cases of beri-beri made their appearance amongst men who were fed in the Police Mess. After investigation the rice was fortified by additional vitamins and no further cases have occured since.

2. SANDAKAN.

The main event during the year was the opening of the Duchess of Kent Hospital on the 7th September. The new Health Centre was completed in October. The shortage of junior staff affecting all hospitals throughout the Colony was equally felt in Sandakan, but with the School of Nursing being opened on the 1st January 1954, it is hoped that this defect will be to some extent remedied.

The Medical Officer reports that occasional cases of malaria originate in the town area, but that ample supplies of prophylatic drugs are available. As regards tuberculosis, the same situation prevails as is so common in the other towns.

Occasionally very bad cases of malnutrition, particularly in children, are brought in from the Interior. It appears that ignorance rather than lack of food is the cause.

3. KUDAT.

The new Cottage Hospital at Kudat was completed and occupied on the lst Septembe. For the last three months of the year it proved entirely satisfactory and adequate for the present needs of the district. The staff is complete and they are comfortably housed in new quarters. The Medical Officer reports that the general health of the district was good, save for a fairly wide-spread epidemic of influenza in mild form, during the early months of the year. On this epidemic was super-imposed an outbreak of whooping cough complicated by pneumonia, particularly among native children. Diseases caused by helminths were very common.

Sanitation in Kudat is very primitive, latrines being situated over the sea, and the water being mainly drived from shallow wells.

still births, infant deaths and maternal deaths have shown a gratifying decline in the last year.

4. LABUAN

The Medical Officer, Labuan reports that the general picture during 1953 was that of a population of fair economic status living in a naturally healthy area, under conditions of poor environmental sanitation. In the middle of the year there was a mild epidemic of mumps. The most important diseases were Malaria and Tuberculosis. However satisfactory control of Malaria transmission was maintained.

Increased travel by dressers resulted in an improved service to the public, and now nearly all areas of Labuan Island are visited once weekly. Towards the end of the year the building of a new operating theatre and a new Administrative block began.

5. BEAUFORT.

The most important advance during the year 1953, in the Beaufort district was the improvement in hospital buildings. At Papar, which is in the Beaufort Medical District, the old temporary hospital buildings were removed and a new hospital and dispensary with 10 beds was constructed. Two new dressers' quarters were also completed. The Medical Officer reports that additional beds, mattresses, hospital linen and items of ward and theatre equipment supplied to the hospitals at Beaufort and Papar have greatly improved the medical facilities and comfort of the patients, compared with previous years. 12 tuberculosis beds in the Beaufort Hospital were constantly occupied throughout the year and modern methods of treatment were widely employed. From the point of view of the Public Health the lack of a good pipe water supply renders the situation potentially dangerous.

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6. KENINGAU.

The Keningau Hospital is in a rather dilapidated condition and plans have been made for its re-building during 1954. In the same way small outstation hospitals in the Interior District are scheduled for reconstruction. Nevertheless improvements have been made in the supply of beds, cots, mattresses, linen and other stores. During the year three new dispensaries and one sick rest house were opened namely at Dalit, where a sick rest house was opened in January; Kerokot dispensary was re-opened in August, and the population of Apin Apin built a dispensary and dresser's quarters to replace the old dispensary (which was closed down in 1951). The dispensaries at Dalit and Apin Apin were enthusiastically welcomed by the local population who had, under their Headman, made very considerable contributions to the buildings. As in former years extensive travelling and the holding of regular clinics continued. The village midwifery service continued as in former years to offer a full midwifery service to most of the accessible places in the district. In Londa of Cat

As regards the public health, the Medical Officer reports that there were appreciable numbers of cases of whooping cough during the middle of the year, and that there was a mild outbreak of influenza early in the year. There were no cases of poliomyelitis or measles. Malaria seems particularly prevalent in the Keningau district and cerebral and fulminating forms of malaria were more common during 1953 than in previous years. In no part of the district does the intensity of infection fall below what is commonly regarded as hyperendemic. Prophylactic drugs have not to date been an unqualified success in this district.

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There has been a substantial decrease in the cases of yaws. The number of patients admitted with pulmonary tuberculosis gradually increased during the year, but the Medical Officer remarks that in his opinion this reflects no increase in the incidence of the disease but only the fact, remarked on above, that patients enter hospital for treatment when they realise that effective drugs are available. As in other small towns throughout the Colony, provision for a satisfactory water supply and adequate sewage disposal still leaves a good deal to be desired.

7. TAWAU.

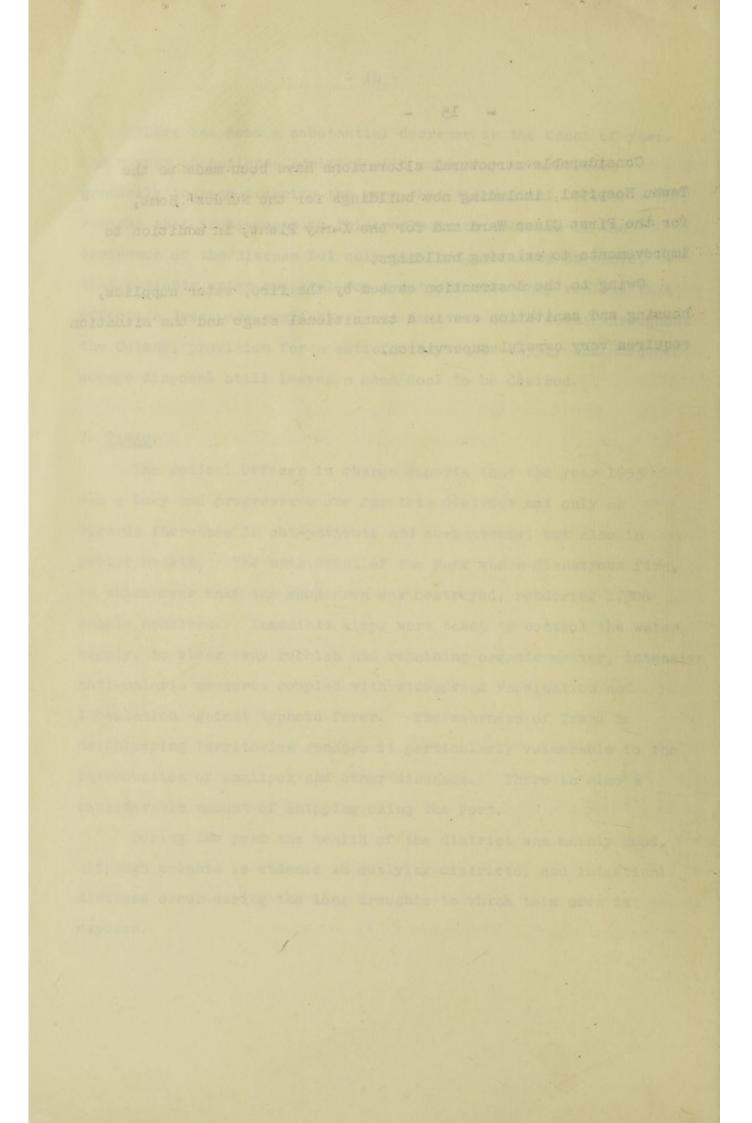
The Medical Officer in charge reports that the year 1953 was a busy and progressive one for this district not only as regards increases in out-patients and in-patients, but also in public health. The main event of the year was a disastrous fire, in which over half the shop area was destroyed, rendering 1,300 people homeless. Immediate steps were taken to control the water supply, to clear away rubbish and remaining organic matter, intensive anti-malaria measures coupled with widespread vaccination and inoculation against typhoid fever. The nearness of Tawau to neighbouring territories renders it particularly vulnerable to the introduction of smallpox and other diseases. There is also a considerable amount of shipping using the Port.

During the year the health of the district was mainly good, although malaria is endemic in outlying districts, and intestinal diseases occur during the long droughts to which this area is exposed.

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Considerable structural alterations have been made to the Tawau Hospital, including new buildings for the Nurses' Home, for the First Class Ward and for the X-ray Plant, in addition to improvements to existing buildings.

Owing to the destruction caused by the fire, water supplies, housing and sanitation are in a transitional stage and the situation requires very careful supervision.



APPENDIX A

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Name & Location Number and Category of Beds					
of Hospital.	General	Obste- trics	Tuber- culosis	Infectious	Total
Jesselton	: 101	: 10	90	1	. 202
Sandakan	73	14	20	6	113
(Duchess of Kent) Mental Hospital	100	-	-	-	100
Tawau	35	4	6	-parte-ta	45
Papar	10	-	-	Carpon -	10
Kudat	30	2	-	ane retre	32
Beaufort	32	-	-		32
Keningau	30		-	2	32
Kota Belud	16	4		- · · ·	20
Labuan	30	2	-	-	32
Lahad Datu	10				10
Semporna	5		200 <u>-</u>	-	5
Ranau	5			-	5
Tambunan	: 10				10 ·
Kuala Penyu	2	: -	-	-	2
Sipitang	: 5			-	5
Tenom	10			-	10
	:	:	:		665

APPENDIX B. STAFF INCLUDING PRIVATE DOCTORS.

	Government	: Missions :	Private
Registered Physicians	15	1	16
Nursing Sisters	7	3	1
Staff Nurses	12		-
Trained Nurses	19		-
Probationer Nurses	24		-
Government Hospital Assistants	9		-
Trained Dressers	77		52
Probationer Dressers	38		-
Certified Midwives	35	3	42
Health Inspectors Grade I.	2		-
Probationary Health Inspectors	11	-	-

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APPENDIX C.

RETURNS FROM 7 GOVERNMENT HOSPITALS AT WHICH A

MEDICAL OFFICER IS IN CHARGE.

RETURN OF MORBIDITY AND MORTALITY FOR THE YEAR 1953.

1. Racial Classification:

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The second second	Out-p	atients	In-patients
tiberesla		Repeat Cases	New Cases Admitted during year
Natives	18,670	14,998	3,319
Chinese	21,311	22,010	3,805
Others	: 5,498 :	6,084	1,123
TOTAL	45,479	43,092	8,247

Patients seen at Ante-natal Clinics and not 2. recorded in above or detailed Classification of disease.

> (1) New Cases - 1,995 (2) Repeat Cases- 1,170

3. Travelling Clinics:

New Cases seen - 15,100

4. Operations:

(1)	Major	-	446
(2)	Minor	- 2	,065

5. Vaccinations: - 25,738

state and many and the state is show i white the man hand and i wat i when the a service of the serv Bar : Bapart Hax Cruss Desea : Ceses Adr. Ft. co Marka Revie intiente com et ante-antel difuiés and out recorded in coove or dotailed Claudification of dimense. (2) Repont Gazoa- 11170

and the second	1 the start of	and the second sec			
Intermediate List Number	Detailed List Numbers.	CAUSE GROUPS.	Out-patient lst Attendances	In-putient Admitted.	Died in Hospital
A 1 A 2 A 3 A 4 A 5 A 4 A 5 A 6 A 7 A 8 A 9 A 10 A 11 A 12 A 13 A 14 A 15 A 16 (b) c) A 17 A 18 A 19 A 20 A 21 A 22 A 23 A 24 A 25 A 26 C A 17 A 18 A 19 A 20 A 21 A 22 A 23 A 25 A 26 C C A 17 A 18 A 20 A 21 A 22 A 23 A 26 C C A 17 A 18 A 20 A 21 A 20 A 20 A 21 A 20 A 21 A 20 A 21 A 20 A 20 A 21 A 20 A 20 A 20 A 20 A 20 A 20 A 20 A 20	001 - 008 010 011 012, 013 014 - 019 020 021 024 025 022, 023) 026 - 029) 030 - 035 040 041, 042 043 044 045 046 047, 048 050 051 052 053 055 056 057 058 060 061 062 080 081, 083 084 085 091 092 094 100 101 104 105 102 - 103) 106 - 108) 110 111 112 115 113, 114) 116, 117	<pre>Tuberculosis of Respiratory System Tuberculosis of meninges and central nervous system Tuberculosis of intestines, peritoneum and mesenteric glands Tuberculosis, all other forms Congenital Syphilis Farly syphilis (Primary and Secondary) Tabes dorsalls General paralysis of insance All other Syphilis General paralysis of insance Infections Cholera Brucellosis (undulant Fever) Bacillary Dysentery Ameebiasis Other unspecified forms of Dysentery Scarlet Fever Streptococcal sore throat Erysipelas Septicaemia and Praemia Diphtheria Mhooping Cough Meningecoccal infections Plague Leprosy Tetaaus Anthrax Acute Poliomyelitis Acute infectious encephalitis Late effects of acute Poliomyelitis and acute infectious encephalitis Late effects of acute Poliomyelitis Menil-pox Mensles Louse-borne epidemic typhus (murine) Tick-borne epidemic typhus (murine) Tick-borne epidemic typhus Mite-borne typhus Other and unspecified typhus Vivax Malaria (benign tertian) Malariae Malaria (Malignant tertian) Blackwater Fever Other and unspecified forms of .</pre>	$ \begin{array}{c} -1 \\ 93 \\ 99 \\ -1 \\ -1 \\ 38 \\ 8 \\ -1 \\ -9 \\ 207 \\ 372 \\ 73 \\ -51 \\ -3 \\ -2 \\ -1 \\ -3 \\ -51 \\ 1 \\ -4 \\ 236 \\ 19 \\ 349 \\ 1 \\ 1 \\ 4 \\ 236 \\ 19 \\ 349 \\ 1 \\ 1 \\ 4 \\ 236 \\ 19 \\ 349 \\ 1 \\ 1 \\ 4 \\ 236 \\ 19 \\ 349 \\ 1 \\ $	254 3 445 4 7 5964	28
1	- Jeen	<u>Malaria</u> <u>/</u> A <u>3</u> 8 (a)			

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Intermediate List Number	Detailed List Numbers.	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted	Died in Hoepital
$ \begin{array}{c} A 38 (a) \\ (b) \\ (c) \\ A 39 \\ A 40 \\ (b) \\ (c) \\ (d) \\ A 42 \\ (a) \\ (c) \\ (d) \\ A 42 \\ (a) \\ (c) \\ (d) \\ (c) \\ (d) \\ (c) \\ (d) \\ (c) \\ (d) \\ (e) \\ (f) \\ (f) \\ (f) \\ (g) \\ (h) \\ (i) \\ (h) \\ (h)$	$\begin{array}{c} 123.0 \\ 123.1 \\ 123.3 \\ 125 \\ 127 \\ \end{array}$ $\begin{array}{c} 129 \\ 126 \\ 130.0 \\ 130.3 \\ 124, 128, \\ 130.1, 130.2 \\ 037 \\ 038 \\ 039 \\ 049 \\ 071 \\ 072 \\ 073 \\ 087 \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 096.7 \\ 120 \\ 096.7 \\ 120 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ 121(a) \\ (b) \\ (c) \\ 131 \\ 135 \\ 036, 054,) \\ 090 \\ 095 \\ 096.7 \\ 120 \\ $	Malignant neoplasm of buccal cavity pharynx Malignant neoplasm of stomach Malignant neoplasm of intestine, except rectum Malignant neoplasm of rectum Malignant neoplasm of larynx	i) 	$ \begin{array}{c} - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\$	
A 50 A 51 A 52 A 53	162, 163 170 171 172 - 174	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary. Malignant neoplasm of breast Malignant neoplasm of cervix uteri Malignant neoplasm of other and unspecified parts of uterus <u>/</u> A/54	- 2 1	2 7 20 18	- 13 -

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		A STATE OF A	i.	1	
Intermediate List Number	Detailed List Numbers.	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted	Died in Hospital
A 54 A 55 A 56	177 190, 191 196, 197	Malignant neoplasm of prostate Malignant neoplasm of skin Malignant neoplasm of bone and	26	2 4	1
	155-160)	connective issue	21	6	4
A 57	164,165) 175,176) 178-181)	Malignant neoplasm of all	100-1150 100-1150	16 1	
1 10	192-195) 198,199)	Other and unspecified sites	1	19	3
A 58 A 59	204 200 - 203,	Leukaemia and aleukaemia Lymphosarcoma and other neoplasms	24 2224	-	-
A 60	205 210-239	and haematopoietic System Benign neoplasms and neoplasms of	Docl	2	-
A 61	250, 251	unspecified nature Nontoxic goitre	65 9	15	2
A 62 A 63	252 260	Thyrotoxicosis with or without goitre Diabetes Mellitus	9	6 13	1
A 64(a)	280 281	Beri-beri Pellagra	43 1	12	-
	282 283-286	Scurvy Other dificiency states	122	25	-
A 65(a)	290	Pernicious and other hyperchromic anaemias	34	3 51	-
(b) (c)	291 292, 293	Iron deficiency anaemias (hypochromic) Other specified and unspecified	1 Pas	- A.	1
A 66(a)	241	Asthma	1,172	79 78	32
(b)	240 242-245)	All other allergic disorders Endocrine,	32	17	-
6 M	253,245) 270-277)	metabolic and blood diseases	- 571.	1	
s Peon	287-289) 294-299)	si Gretro-onteritie and colities adre	571-	(3)	
A 67 A 68	300-309 310 - 324)	Psychoses Psychoneuroses and disorders	1.572	36	5
A 69	326) 325	personality Mental deficiency	9 20	17 80	ī
A 70	300-334	Vascular lesions affecting central nervous system	2	10	4
A 71 A 72	340 345	Non-meningococcal Meningitis Multiple sclerosis	10-24	93	3-
A 73 A 74	353 370-379	Epilepsy Inflammatory diseases of eye	13 833	12 58	=
A 75 A 76	385 387	Glaucoma	16	8	-
A 77(a) (b)	390 391-393	Otitis externa Otitis media and mastoiditis	555 268	15	-
A $78\begin{pmatrix}c\\a\end{pmatrix}$	394	Other inflammatory disease of ear All other diseases and conditions	511	98	-
	386, 388) 389	of eye	100	27 51	4
(b)	341, 344) 350 - 352)	All other diseases of the nervous	249	51	4
2 COT	354 - 357) 360 - 369)	system and sense organs			
A 79	395 - 398) 400-402	Rheumatic Fever		4	-
		<u>/</u> A 80			

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Intermediate List Number	Detailed List. Numbere	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted	Died in Hospital
A 80	410-416	Chronic rheumatic heart disease	_	6	1
A 81 A 82 A 83 A 84 A 85 A 86 A 87 A 88	420-422 430-434 440-443 444-447 450-456 460-468 470-475 480-483	Arteriosclerotic and degenerative heart disease <u>Other diseases of heart</u> Hypertension with heart disease Hypertension without mention of heart Diseases of arteries Other diseases of circulatory system <u>Acute upper respiratory infections</u> <u>Influenza</u>	4 64 995 3,553	7 40 2 17 10 36 34 109	3 11 2 2 3 - 1 7
A 89 A 90	490 491	Lobar pneumonia Bronchopneumonia	17 29	103 122	21
A 91 A 92 A 93 A 94 A 95 A 96 A 97 (a)	492, 493 500 501, 502 510 518, 521 519 523	Primary a typical, other and <u>unspecified pneumonia</u> <u>Acute bronchitis</u> <u>Bronchitis, chronic and unqualified</u> <u>Hypertrophy of tonsils & adenoids</u> <u>Empyema and abscess of lung</u> <u>Pleurisy</u> <u>Pneumoconiosis</u>	121 2,273 1,297 382 5 7 -	73 · 199 185 112 6 15 3	2 - 1 - 3
(b)	511-517) 520-522)	All other respiratory diseases	560	43	-
A 98(a)	524-527) 530	Dental Caries	1,111	11	-
(b)	531-535 540)	All other diseases of teeth and supporting structures Ulcer of stomach	180 11	21 15	-
A 100 A 101	541) 543	Ulcer of duodenum Gastritis and duodenitis	624	1(2)	1
A 102 A 103	550-553	Appendicitis Intestinal obstruction and hernia	29 10	53 67 54	ī
A 104(a)	570) 571.0	Gastro-enteritisand colitis between 4 weeks and 2 years	238	41	9
(b)	571.1	Gastro-enteritis and colitis, ages 2 years and over.	643	109	2
(c) A 105 A 106 A 107	572 581 584,585 536-539)	Chronic enteritis & ulcerative coliti Cirrhosis of liver Cholelithiasis and cholecystitis	s 46 3 30	18 14 9	- 3 -
	542,544) 545 57 3- 580) 582,583)	Other diseases of digestive system	1,550	81	3
A 108 A 109	586,587) 590 591-594	Acute nephritis Chronic, other and unspecified	17	30	l
A 110 A 110 A 111	600 602,604	nephritis <u>Infections of Kidney</u> Calculi of urinary system	6 41 2	22 16 13	6 1 -
A 112 A 113	610 620,621	Hyperplasia of prostate Diseases of breast	- 15	2 19	ī -
A 114(a) (b)	613 634	Hydrocele Disorders of menstruation	3 139	8 35	1 -
(c)	601,603) 605-609) 611,612)	All other diseases of the	180	109	5
	614-617)	Genito-urinary system	360 - 36	20	
	635-637)	<u>/</u> A 115		26	1
		and a second second			-

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Intermediate List Number	Detailed List Numbers	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted	Dicd in Hospital
Λ 115	640-641) 681,682) 684	Sepsis of pregnancy, childbirth and the puerperium		111	1
A 116	642,652) 685,686)	Toxaemias of pregnancy and the puerperium		30	1
A 117	643,664) 670-672)	Haemorrhage of pregnancy & Childbirth	3	16	2
A 118	650	Abortion without mention of sepsis or toxaemia	8	94	
A 119 A 120(a)	651 645-649) ·	Abortion with sepsis Other complications of pregnancy,	1200-	12	1
	673-680) 683	Childbirth and the puerperium	153	106	7
(b) A 121	687-689) 660 690-698	Delivery without complications Infections of skin and subcutaneous	12	910	-
A 122	720-725	tissue Arthritis and spondylitis	1,854 93	240 48	-
A 123	726,727	Muscular rheumatism and rheumatism unspecified	852	28	
A 124 A 125	730 737)	Osteomyelitis and periostitis Ankylosis and acquired musculo-	7	17	
A 126(a)	745-749)	skeletal deformities Chronic ulcer of skin (including	1	4	-
(b)	700-714)	All other diseases of skin	2,450 1,788	148 229	1612.00
(c)	716) 731-736)	All other diseases of musculo- skeletal system	1	12	
A 127 A 128	738-744 751 754	Spina hifida and meningocele Congenital malformations of	-	-	
A 129	750,752)	circulatory system	-	2	1
	753 755- 7 59	All other congenital malformations	-	9	
Λ 130 Λ 131	760,761	Birth injuries Post-natal asphyxia and atelectasis	157	2	1
A 132(a) (b)	764 765	Diarrhoea of newborn (under 4 weeks) Ophthamia neonatorum	43	2 -	-
(c)	763,) 766-768)	Other infections of newborn	665	(8)-	-
A 133 A 134	770 . 769	Haemolytic disease of new-born All other defined diseases of early	-	- 6	-
A 135	771,772) 773,776	Ill-defined diseases peculiar to	1	0	1
A 136	794	early infancy, and immaturity unqualified Senility without mention of psychosi	s 31	4 31	2
A 137(a) (b)	788.8	Pyrexia of unknown origin Observation, without need for	866	92	8
(c)	780-787)	medical care	719	334	-
	788:1-) 788.7)	All other ill-defined causes of	2 760	700	E
	789.9) 789-792)	morbidity	1,369	300	5
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		and the second sec	9 48		

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"E" CODE. ALTERNATIVE CLASSIFICATION OF ACCIDENTS,

POISONINGS, AND VIOLENCE (EXTERNAL CAUSE).

Intermediate List Number	Detailed List Numbers	CAUSE GROUPS.	Out-patient let Attendances	In-patient Admitted	Dicd in Hospital
AE 138	E810-E835	Motor vehicle accidents	30	28	1
AE 139	E800-E802) E840-E866)	Other transport accidents	104	31	
AE 140	E870-E895	Accidental poisoning	64	7	-
AE 141	E900-E904	Accidental falls	647	170	-
AE 142	E912	Accident caused by machinery	161	11	Set - t
AE 143	E916	Accident caused by fire and explosion of combustible material	18	15	2
/E 144	E917, E918	Accident caused by hot substance corrosive liquid, steam and radiation	136	39	145
AE 145	E919	Accident caused by firearm	-(115-0	7	12-
AE 146	E929	Accidental drowning & submersion	n lages	14	1
AB 147	(a) E920	Foreign body entering eye and adnexa	58	7	127
	(b) E923	Foreign body entering other <u>orifice</u>	39	4	res.L
	(c) E927	Accidents caused by bites and stings of venomous animals and insects	135	38	
	(d) E928	Other accidents caused by animals	214	30	- 1
	(e)E910,E911) E913-E915) E921-E922) E924-E926) E9 3 0-E965)	All other accidental causes	1,963	390	4
AE 148	E970-E979	Suicide and self-inflicted injury	113	33	4
AE 149	Е980-Е985	Homicide and Injury purposely in- flicted by other persons (not in	1.625		
AE 150	Е990-Е999	war) Injury resulting from operations	18	8	1
100		of war		-	-
		Malarial suppressive	162	-	-
		Accompanying patient TOTAL-	45,479	29 8,247	267
-			45,415	0,241	201

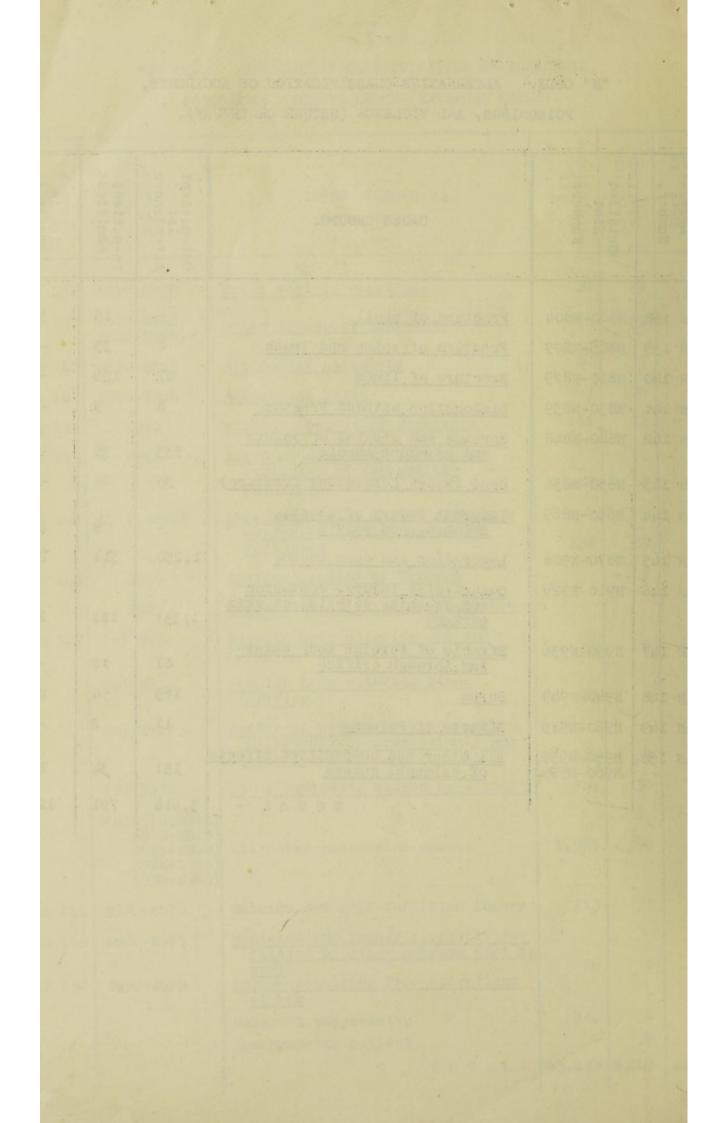
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"N' CODE. ALTERNATIVE CLASSIFICATION OF ACCIDENTS,

POISONINGS, AND VIOLENCE (NATURE OR INJURY).

Intermediate List Number.	Detailed List Numbere	CAUSE GROUPS.	Out-patient lst Attendances	In-patient Admitted	Died in Hospital
AN 138	N800-N804	Fracture of skull	_	16	3
AN 139	N805-N809	Fracture of spine and trunk	2	35	-
AN 140	N810-N829	Fracture of limbs	27	126	-
AN 141	N830-N839	Dislocation without Fracture	8	9	-
AN 142	N840-N848	Sprains and strains of joints and adjacent muscle	533	36	-
AN 143	N850-N856	Head injury (excluding fracture)	35	26	-
AN 144	N860-N869	Internal injury of chest, abdomen, and pelvis	_	9	2
AN 145	N870-N908	Laceration and open wounds	1,250	311	ż
AN 146	N910-N929	Superficial injury, contusion and crushing with intact skin surface	1,351	121	2
AN 147	N930-N936	Effects of foreign body enter- ing through orifice	81	12	
AN 148	N940-N949	Burns	165	54	2
AN 149	N960-N979	Effects of Poisons	11	2	-
AN 150	N950-N959) N980-N999)	<u>All other and unspecified effects</u> of external causes	151	34	l
		TOTAL -	3,614	791	12

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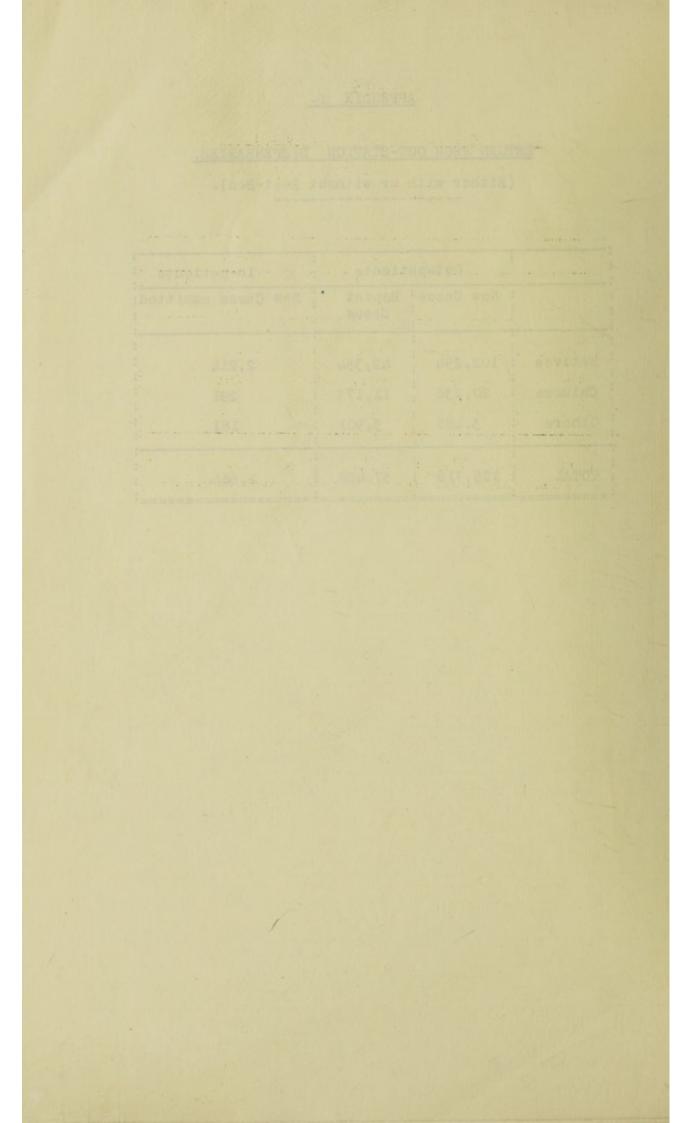
APPENDIX D.

RETURN FROM OUT-STATION DISPENSARIES.

a le le la la	Out-pa	tients	In-patients
	New Cases	Repeat Cases	New Cases admitted:
Natives	102,294	42,354	2,214
Chinese	20,236	11,173	291
Others	3,186	3,901	181
TOTAL	125,716	57,428	2,686

.

(Either with or without Rest-Bed).



	25.	24.	23.	22.	21.	20.	19.	18.	17.	16.	15.	14.	13.	12.	11.	10.	9.	8.	7.	6.	5.	Ŧ.	3.	2.	1.	1	1
TOTAL - 125,716 57,428 2,686 46	Menggata1	Jesselton Mobile Dispensary	Sepulot	. Mempakul	Semporna		Tongod	Trusan	Lamag	Beluran	Ranau	. Bundu Tuhan	. Kota Belud	. Tandik	. Bandau	. Tulid	. Tambunan	. Pensiangan'	. Tenom	. Sipitang	. Kuala Penyu	. Papar	. Tenghilan	. Tuaran .	. Kapayan		STATIONS
125,716	1,813	16,372	2,400	1,911	5,630	2,553	1,571	2,322	391	2,401	4,933	1,937	18,250	2,756	4,190	1,354	4,607	7,950	8,199	10,213	4,187	4,842	5,506	7,011	2,417	New Cases	Out-Patients
57,428	445	1,198	2,932	727	5,738	4,313	274	159	158	852	4,485	174	1,885	421	419	1,379	951	2,471	4,583	3,125	682	7,757	1,901	3,254	7,145	Cases	icnts
2,686	1	1	L	1	104	1.84	1	1	1	22	122	19	489	1	1	66	378	298	273	106	18	319	1	1	287	New Cases Admitted	In-Putients
,428 2,686 46	1	1	1	1	1	10	1	1	1	1	5	I	4	1	1	1	7	1	10	S	1	6	1	1	1	Dicd in Hospital	tente
	1	1		1	1	1	I	1	1	1	1	1	83	1	I	1	1	ı	1	6	I	43	1	147	1	New Cases	Ante-Natal
415	1	1	I	1	I	1	1	1	I	I	I	1	219	I	I	1	1	1 -	1	T	1	1	1	195	I	Repeat	latal
279 415 48,408 4 840 13,444	1	16,372	534	971	254	401	1,723	981	1,288	2,267	1,193	752	4,048	1,328	1,255	1,563	5,374	3,718	923	2,585	305	681	1	1	1	New Cases Seen	
4 840	1	1	1	1	1	1	1	1	1	1	2	1	1	1	I	1	1	1	N	1	1	1	1	1	1	Major	Travelling
8410	37	1	6	28	62	78	7	11	2	19	64	5	35	1	1	52	26	33	85	85	4	49	1	66	86	Minor	
13,444	13	4694	1	374	285	1,114	611	1,127	214	2,170	120	1	1,477	627	306	1	21	250	2,283	262	225	988	40	240	S	Vaccination.	Operations

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APPENDIX E.

DENTAL DEPARTMENT (REPORT FOR 1953).

The first full period of 12 months, for which the Dental Service has been in operation, began in April, 1952. Owing to the large number of potential patients, the service is primarily a casualty Dental Service, providing for the immediate treatment of those in urgent need. It was however possible during the year to inspect a large number of school children, and follow this up with routine treatment.

The Dental Surgery was by the end of 1953 almost completely equipped. The Laboratory is not completely equipped, but considerations of space make it unlikely that a fully equipped laboratory can be brought into use until the new Dental Department in the Jesselton Hospital is available for occupation.

RECORDS OF INSPECTION AND TREATMENT

Attendances	-	2,909
Teeth Filled	-	394
Temporary teeth extracted	-	1,186
Permanent teeth extracted	-	1,605
Other Operations	-	363
General Anaesthetics given	-	257
Partial Dentures	-	61
Full Dentures	-	31
Repairs to Dentures	-	11
X-Ray	-	47

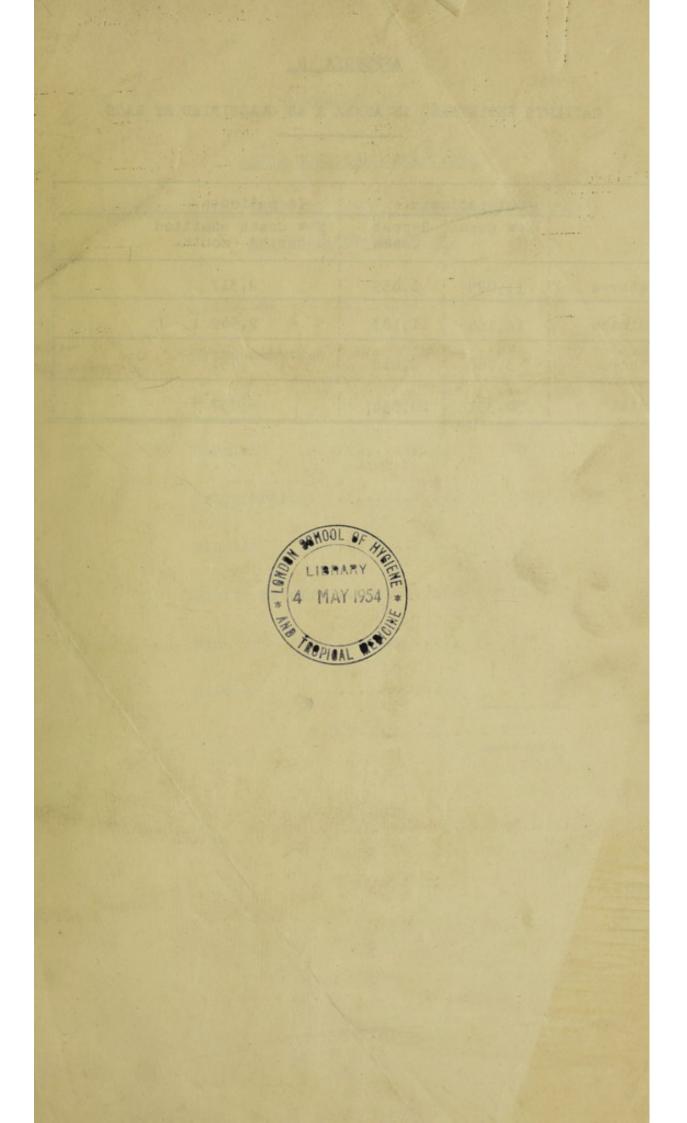
VISITS TO OTHER STATIONS:

During the year visits were paid to Keningau, Papar, Sandakan, Kota Belud, Tawau and Kudat. In all these places a majority of School children were inspected and treatment offered.

TRAINING:

The training of subordinate additional staff on a limited scale proceeded throughout the year.

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APPENDIX B.

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	· Out-patie	onts.	In-patients.	
1.1.1	New Cases	Repeat Cases	New Cases admitted during month.	
Natives	11,099	6,459	2,317	
Chinese	16,164	11,183	2,989	
Others	3,088	2,412	751	
Total	30,351	20,054	6,057	

PATIENTS REGISTERED IN ANNEX A AS CLASSIFIED BY RACE.

APPENDIX F.

MAJOR SURGICAL OPERATIONS

PERFORMED DURING THE YEAR 1953 BY THE COLONY SURGEON AT JESSELTON HOSPITAL.

Abdominal		60
Gynaecological		35
Rectal		34
Herniai		28
Orthopaedic		22
Plastic		15
Genito-Urinary		14
Neck		12
Others .		5
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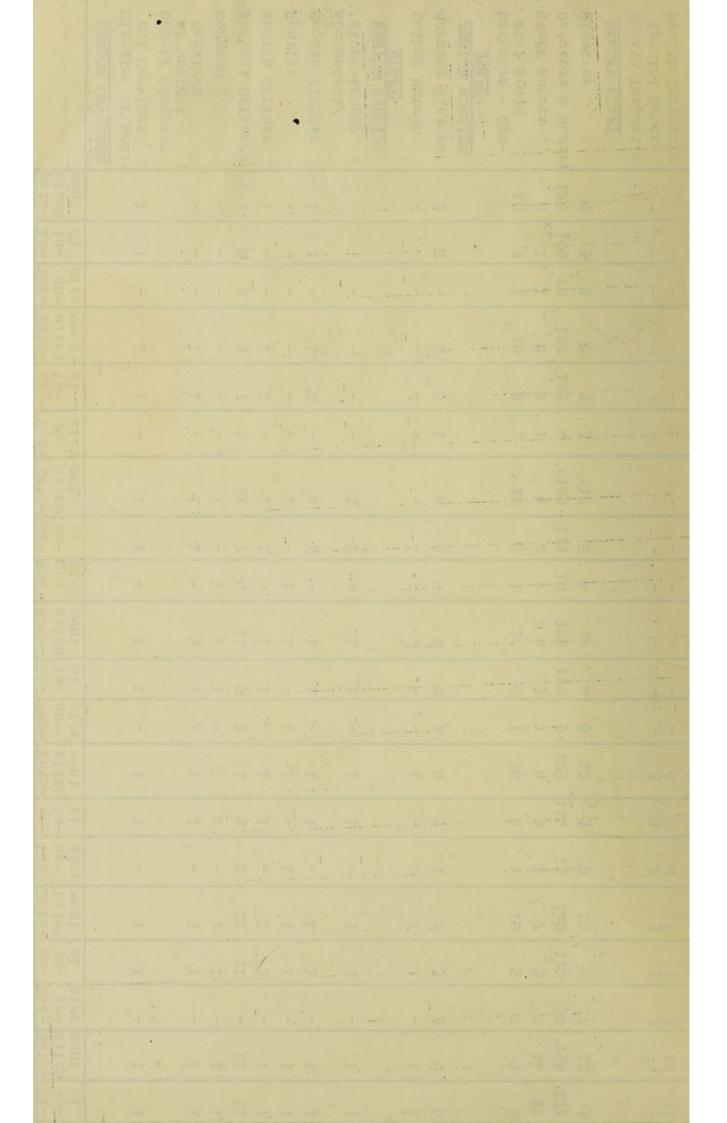
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HEALTH STAFF Health Inspector Special Grade Health Inspector Vaccinators Rat Catcher	& de	Nursing Sisters JUNIOR NURSING STAFF Dressers - Spe-		Dentist Health Visiter	Surgeon Medical Officers Health Officer	SENIOR OFFICERS Director of Medi- cal Services Deputy Director of Medical Services		
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Amahe at Hostcle	Cocks at Hostels	Watchmen	Messengers	Mandore	Attendante & Servante	Dental Mechanic	Laboratery Assistant	MISCELLANEOUS JUNIOR STAFF	Village Midwives	Staff Village Midwives	CHILD WELFARE	Anti-Mosquito Assistants	Village Health Inspectors		
	1	4	1	10	157	1	1		15	1		4	15	Esta- blish ment	
1	1	4	1	8	157	1	I		Ч	I		4	15	Ac- tu- al	1947
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U.	G	6	6	10	169	1	1		29	N		S	15	Esta- blish ment	
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