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COLONY OF SARAWAK

ANNUAL REPORT
OF THE
MEDICAL AND HEALTH DEPARTMENT
FOR THE YEAR
1951

BY

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APPENDICES

I. Introduction

The Colony of Sarawak, its shores washed by the China Sea, is a strip of territory from thirty to one hundred and sixty miles wide situated on the north coast of the Island of Borneo between, roughly, the 110th and 116th parallels of longitude east of Greenwich, and between 1° and 5° north latitude. It has a coastline of some 500 miles and in area is about 50,000 square miles, roughly the size of England and Wales. In the north and east, its boundaries march with those of the State of Brunei and the Colony of North Borneo, while to the east, south and west it shares a common boundary with the former Dutch Borneo, now part of the United States of Indonesia.

There is a wide, low-lying coastal plain which narrows towards the north of the territory. Through this plain wind innumerable rivers from their sources in the mountainous interior. These rivers are the main arteries of trade and, virtually, the only means of communication but they are not ideal for the purpose as rapids in the higher country of the interior and bars at the river mouths in certain cases render navigation hazardous and restrict usage. Nevertheless, fair sized vessels, up to about 2,000 tons, can ascend the Sarawak River as far as Kuching sixteen miles from the river mouth. The Rejang River, the largest and most important waterway in the Colony, can be used in its lower reaches by vessels of almost unlimited tonnage and by fair sized vessels as far as, and beyond, Sibu which is some sixty miles from the sea.

The estimated population at 31st December, 1951, was 576,116 (Census 1947 - 546,385). There are three main population groups, namely, the Pagan Tribes, the Malays and the Chinese. The Pagan Tribes, which includes Ibans or Sea Dayaks, Land Dayaks, Muruts, Kayans, Kenyahs, Punans and many others, constitute about fifty per cent of the Colony's population. The other two groups, approximately equal, constitute the other fifty per cent.

The population density throughout the territory as a whole is only approximately eleven per square mile but large tracts of country are uninhabited and the population is almost entirely concentrated in small settlements, on the coast and along the rivers and, in the case of the Pagan Tribes, in "Longhouses" on the banks of the upper reaches of the rivers. These longhouses are, in effect, villages under one roof and, in most instances, they are separated from each other by many miles. Roughly speaking the Malays and Melanos inhabit the coastal areas, the Chinese the towns and trading centres, the Dayaks the interior of the country.

The country's most important export, to which its economy is closely linked, is rubber, which comes from small holdings, mainly owned by Chinese. There are only three large rubber estates in the country.

The three main towns are Kuching, the Capital, on the Sarawak River, Sibu on the Rejang River, and Miri, the centre of the oilfields, in the north. The 1947 Census gave the population of Kuching as 37,949, of Sibu 9,983, and of Miri as 10,951.

Communication between the main centres and elsewhere is by sea or river and there are very few roads. In the First Division, in the environs of Kuching, there is something less than one hundred miles of roads. The only other road of significance in the Colony runs from Miri to the Brunei border and on to Seria and Brunei Town.

The climate is tropical but the heat is never extreme. Temperatures are uniform throughout the year and thermometer readings greatly exceeding 90°F. are rare. Humidity is high and renders the climate a trying one especially for Europeans. The average rainfall at Kuching is 160 inches. There is no clearly

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marked division into wet and dry seasons, rain falling throughout the year, but there is considerably more rain during the period of the North East monsoon from October to March.

II. Administration

(a) Staff

At the beginning of the year the approved medical establishment consisted of a Director, a Deputy Director, nine medical officers and a lady medical officer. All but two medical officer vacancies had been filled and all these officers were in the Colony. There appeared to be reasonable prospects that the two vacancies would be filled and thus, in spite of three officers being due for leave during the year, the medical staff position did not appear unfavourable. In the event no further recruits were obtained and, for a period when two officers were together out of the Colony on leave, there was difficulty in meeting commitments.

During the year approved establishment of medical officers was increased by two to meet increasing commitments and, as a serving officer resigned, the Department in fact finished the year with five medical officer vacancies. As the year closed information was received that an officer had been recruited but would not reach the Colony until April, 1952.

Throughout the year a lady doctor was employed on a part time basis in a station which would not normally, at this stage, be one to which a medical officer would be posted. Also late in the year, a local appointment in Kuching of a Chinese doctor, extra to establishment, was made. These could not, however, be regarded as easing staff difficulties to any material extent and so the prospects for 1952 were not bright.

Appendix I sets forth qualified medical staff available at 31st December, 1951 and Appendix II the senior establishment of the Department.

The establishment of senior nursing staff was, at the beginning of the year, a Matron, a Sister Tutor, a Health Visitor and four nursing sisters. All these posts were filled in the early months of 1951 but the Matron went off on leave pending retirement in May and from then until December, the Department was one officer short. The necessity for additional senior nursing staff being recognised approval was given in April for the establishment to be increased by one Matron, Grade II, one Health Sister and six nursing sisters. However, at the close of the year none of these new posts had been filled.

The Sarawak establishment includes provision for Brunei to the extent of two medical officers, one Matron, Grade II, one Nursing Sister and one Health Sister.

Even greater difficulties were experienced with regard to local staff, especially nursing staff, and the number of recruits presenting themselves was quite insufficient to meet the needs of the growing department. The situation gave rise to considerable anxiety and various expedients were resorted to meet the difficulties. The grade of Assistant Nurse was created, and such personnel are now employed in the hospitals on Kuching, Simanggang and Sibu. A lower standard of education is required from these girls than from the probationer nurse, their training is purely practical and their function is to relieve the professional nurse of those ward duties which do not require for their performance a high degree of professional training and skill. During the year

this scheme proved its value and demonstrated conclusively that, far from being a temporary expedient, the Assistant Nurse is a permanent and essential part of the Colony's nursing service.

Again, on account of the shortage of nurses trained midwives had to be employed to staff the Maternity Ward in Sibu Hospital.

Insufficient recruits to other branches, e.g. health visitors and health inspectors, prevented extension of these important and much needed services and it was only, perhaps, in midwifery service that as many trainees as could be dealt with were obtained and a positive advance achieved.

(b) Training of Personnel

(i) Hospital Assistants and Nurses

For Government service these groups are trained in the Kuching General Hospital, the only institution in the Colony which could qualify as a teaching hospital. Training is also undertaken at the S.O.L. Hospital at Miri to meet the needs of that institution. There is as yet no registration of nurses.

The training in Kuching is under the care of a qualified Sister Tutor and, as far as the nurses are concerned, is on a satisfactory basis. The training period for general nursing is three years followed by a year's training in midwifery. Standards are lower than one would wish for but, in the circumstances of local education, the results are often very good indeed.

Training of hospital assistants is not so satisfactory. The training period in this case is three years which, although not long enough, is all that present staff shortage will permit. There is much less training in medical skills than is desirable and, at present, the training is practically that which would be given to male nurses. As the main function of these men is to serve in outstations, more often than not on their own, their training in the clinical skills is essential and, in future, this will be stressed.

The numbers of hospital assistants and nurses who completed their training during the year was 4 and 4 respectively. At the close of the year 30 probationary hospital assistants and 18 probationary nurses were in training.

(ii) Midwives

The scheme for the improved training of midwives mentioned in the previous report was put into force in March. In the past midwife trainees were merely taught how to conduct labour in the Maternity Ward where they worked for a year. The new scheme extends the period of training to two years and provides in addition instruction in ante-natal and post-natal care and experience of domiciliary midwifery. The domiciliary aspect of the scheme was, from March until October under the supervision of the Midwife Tutor provided by UNICEF, and thereafter was supervised by her understudy, a local Senior Staff Nurse. By the end of the year satisfactory progress had been made and the scheme was securely launched.

Eight midwives were continuously in training throughout the year in Kuching. Two completed their training during 1951 and received certificates under the old training scheme.

(iii) Health Inspectors

It was unfortunately not found possible to send any men

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to Singapore for training as the course for the examination for the Certificate of the Royal Sanitary Institute could not be held there.

Towards the end of the year negotiations were proceeding with the World Health Organisation for scholarship to send one man to New Zealand for training as a health inspector and for a serving Senior Health Inspector to go to Australia to obtain experience in meat and food inspection and to obtain the appropriate certificate of the Royal Sanitary Institute.

Should it not be possible for the Authorities in Singapore to organise a course of training for health inspectors in 1952 it will be necessary to make alternative local arrangements, and a scheme of training is being drawn up.

(iv) Health Visitors

When the year commenced the personnel available and in training was two trained nurses and four district midwives. During the year it was only possible to make one addition to this staff by the engagement of a further district midwife. The two trained nurses completed their health visitor's training and three of the district midwives passed the appropriate examination and will, in future, be designated assistant health visitors.

Recruitment difficulties were extreme and it is anticipated that difficulties will be as great in 1952 as a result of the increased period of training for midwives from whom assistant health visitors are recruited. Again the acute shortage of trained nurses in the hospitals make it, at the moment, impracticable to release any for training as health visitors.

(v) Laboratory Technicians

During the year one trainee completed his training and was posted to an outstation hospital. Three other men were in training throughout the year.

(vi) Dispensers

Two probationers were in training throughout the year.

(c) Legislation

During the year the most important pieces of public health legislation brought into force were the Port Health Regulations, 1951, and the Port Health (Air Navigation) Regulations, 1951, which replaced the former, inadequate, Quarantine Rules. These new rules incorporate the provisions of the current International Sanitary Conventions but they will, perhaps, require amendment when the International Sanitary Regulations enter into force.

Although a new Registration of Births and Deaths Ordinance was enacted in 1948 it was found in practice to place such a strain on the clerical staff of the District Administration that amendment of the registration system became necessary. To achieve this it was considered desirable to enact a new Ordinance and thus the Registration of Births and Deaths Ordinance, 1951, was placed on the statute book and came into force on 1st August, 1951. The new Ordinance while retaining the essentials of the previous system of collecting information, provides for the maintenance of a central register alone, in place of registers in each district.

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(d) New Buildings

In spite of high building costs and labour shortages a not inconsiderable amount of Medical Department building was achieved or initiated during the year. At the Leper Settlement a new barrack block was erected and one semi-detached quarter. At Simanggang Hospital the erection of a twenty-bed general ward and a small ward for infectious cases was commenced but the work had not been completed by the end of the year.

In Sibu various alterations and additions were made to the Lau King Howe Hospital. Internal alterations led to a small increase in bed accommodation, a mental ward was completed and also the new Nurses' Home. A twenty-bed ward for tuberculosis cases was under construction as the year closed. Although funds were provided for a new outpatient department the work unfortunately could not be started in 1951.

But the largest medical scheme initiated during 1951 was the new Government Hospital at Miri and construction work had commenced by the end of the year. This scheme is the result of joint effort by Government and the Sarawak Oilfields Limited and provides for forty-four beds; twenty-two of which will be for tuberculosis cases. The cost of the tuberculosis unit and its equipment and the cost of part of certain ancillary hospital buildings will be borne by the Sarawak Oilfields Limited. The total cost of the scheme is estimated to be $177,660 of which $61,500 is accounted for by the hospital buildings and the remainder by staff housing.

(e) Finance

The estimated Medical Department expenditure for 1951 was $2,086,579.00 which was the equivalent of 10.4% of the Colony's total estimated revenue. In the event, expenditure fell below the estimate, the Colony's revenue was very much greater than anticipated and thus Medical Department expenditure represented a very much lower percentage of the Colony's revenue. The figures of expenditure for the year are shown below and compared with the figures for the previous year.

Sub-head	Estimated 1951	Actual* 1951	Expenditure 1950
Personal Emoluments	$ 939,942	$ 924,204.79	$414,977.89
Other Charges, Annually Recurrent	1,988,497	1,079,200.95	972,787.14
Other Charges, Special Expenditure	80,746	40,112.12	81,520.49
	$3,009,185	$2,043,517.86	$1,469,285.52

*These are not final figures but they are the most accurate available at the time of writing.

The following table sets forth annual Medical Department expenditure since 1938, excluding the years of Japanese occupation.

Year	Medical Department Expenditure $	Percentage of Colony's Revenue
1938	300,160	7%
1939	299,333	6.3%
1940	366,118	4.9%
1946	430,608	7.7%
1947	970,258	7.8%
1948	989,531	6.3%
1949	1,161,750	7.9%
1950	1,466,046	5.0%
1951	2,043,517	4.49%

(f) Central Medical Store

This institution functioned in a satisfactory manner throughout the year, adequately dealing with the ever-increasing volume of stores used by the Department. The supply position was satisfactory and difficulties were minimal in this regard. It was only in the case of the more elaborate items, such as electrical equipment, that substantial delays in delivery occurred. Progress was made in the building up of reserve supplies but a stage has now been reached when storage accommodation is taxed to the limit and the provision of additional storage space has become a matter of urgency. Extension of the present building may not be a practical proposition and the erection of a new and larger building, possibly more centrally sited, will have to be considered.

III. Vital Statistics

(a) Population

The last Census, the first comprehensive one to be carried out in Sarawak, was held on the night of 26th/27th November, 1947. At that time the population of the Colony was 546,385 made up of the following racial components:-

Europeans	691
Malay	97,469
Melano	35,560
Sea Dayak	190,326
Land Dayak	42,195
Other Indigenous	29,867
Chinese	145,158
Other Asiatic	5,119
	546,385

Registration of births and deaths was governed, in the early months of the year by the Registration of Births and Deaths Ordinance, 1948, and from 1st August, 1951 by the Registration of Births and Deaths Ordinance, 1951, The new Ordinance while retaining the essentials of the previous system of collecting information, provides for the maintenance of a central register alone, in place of registers in each district. An estimate of the Colony's population at 31st December, 1951 has been made and is shown below. The 1947 Census figures were used as a base line and account was also taken of immigration and emigration. However, a high degree of accuracy cannot be claimed for these figures and registration of births and deaths is still far from being complete.

Race	Estimated Population at 30th June, 1950	Estimated Population at 31st December, 1951
European	1,012	1,459
Malay	101,055	103,293
Melano	36,098	36.928
Sea Dayak	190,977	192,349
Land Dayak	43,181	43,964
Other Indigenous	30,128	30,433
Chinese	154,490	162,302
Other Asiatic	5,256	5,388
	562,197	576,116

This total figure represents an increase of approximately 5.4% on the Census population figure, and 1.8% over the previous year's figure.

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(b) Births

The total number of births registered as having occurred during the year ending 31st December, 1951, was 14,035, an increase of 1,558 over the previous year. This continued increase is the effect of the new system of registration but even yet registration is incomplete as the following anomalous figures of the racial breakdown of the 1951 birth registration shows.

	Male	Female	Total
European (including Eurasian)	12	17	29
Chinese	2,731	2,135	4,866
Malay	1,910	1,736	3,646
Melano	607	505	1,112
Sea Dayak	1,206	1,120	2,326
Land Dayak	652	666	1,318
Other Asiatic	98	94	192
Other Indigenous	274	272	546
	7,490	6,545	14,035

(c) Stillbirths

	Male	Female	Total
Chinese	26	22	48
Malay	25	20	45
Melano	13	7	20
Sea Dayak	17	8	25
Land Dayak	12	3	15
Other Indigenous	2	--	2
Other Asiatic	--	3	3
	95	63	158

It is certain that these figures are incomplete and that, especially in the more remote rural areas, stillbirths are not being recorded.

From these figures the stillbirth rate is 11.25 per 1000 live births.

(d) Deaths

The total number of deaths registered during the year ending 31st December, 1951 was 5,175. This figure was more than double that for the previous twelve months. The racial distribution of the deaths was as follows:-

	Male	Female	Total
European (including Eurasian)	4	3	7
Chinese	724	373	1,097
Malay	791	611	1,402
Melano	268	199	467
Sea Dayak	690	533	1,223
Land Dayak	340	259	599
Other Asiatic	36	20	56
Other Indigenous	176	148	324
	3,029	2,146	5,175

Virtually the only certified deaths were those occurring in the hospitals in Kuching, Sibu and Miri.

(e) Infant Mortality

Deaths under 1 year registered during the year ending 31st December, 1951, numbered 1,325 as compared with 1,112 in the previous twelve months, an increase undoubtedly due to wider registration.

The infant mortality rate was 94 per 1000 live births as compared with 97.9 per 1000 live births in the previous twelve months.

The racial distribution of the infant deaths was as follows:-

	Infant Deaths	Live Births	Infant Mortality Rate
European	2	29	69
Chinese	250	4,866	51
Malay	482	3,646	132
Melano	151	1,112	136
Sea Dayak	223	2,326	96
Land Dayak	136	1,318	103
Other Asiatic	9	192	47
Other Indigenous	72	546	132
	1,325	14,035	94

IV. General Sanitation

(a) Sewage Disposal

With the exception of individual septic tank installations in premises in the better residential areas of Kuching, Sibu and Miri and in isolated premises in certain outstations, there are no water borne system of sewage disposal in the Colony. In towns and trading centres, even in the densely populated bazaar areas, conservancy systems are in operation, usually the double bucket system. In general these work as well as their inherent disadvantages will permit but such a system can never be wholly satisfactory in urban areas. An additional difficulty experienced especially in the bazaar areas of Kuching is the absence of sanitary lanes at the back of the premises where the latrines are sited, and removal of buckets through shop premises is sometimes inevitable. In kampong areas and less congested parts of the towns riparian or pit latrines are the rule.

In Kuching collection and disposal of night-soil is undertaken by the Municipality. The double bucket system functions and vehicles and plant are satisfactory and are efficiently maintained. The night-soil is treated in a series of three tanks sited on the river bank below the town, the effluent being discharged into the river. There was evidence during the year that these tanks were overloaded as the effluent was often unsatisfactory creating considerable smell nuisance in the vicinity of the installation and, particularly, to vessels passing on the river.

In Sibu and Miri the work is carried out by contractors and is, in consequence, not so satisfactory. Sewage disposal is nominally by direct discharge into the rivers at a suitable state of the tide but there is clear evidence that a large proportion of the night-soil is profitably disposed of to Chinese market gardeners for use as manure.

In the smaller stations and trading centres disposal may be by the bucket system, pit latrines, or riparian latrines, but

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there is little doubt that here, too, a large proportion of the night-soil is surreptitiously disposed of in cultivation.

In rural areas houses are frequently built on the edge of tidal creeks and streams, disposal of sewage is directly into the water and nuisance is minimised. The Dayak "longhouses", however, are usually on high ground away from the rivers and they are raised high above the ground. Night-soil drops through the floor to the space below the house and is effectively disposed of by the domestic pigs whose haunt this space is.

(b) Refuse Disposal

Kuching has an efficient mechanised refuse collection organisation operated by the Municipality. Practically all premises have refuse bins and wherever possible the service is a direct dustbin to lorry one. In some areas, inaccessible to the lorries, double handling is necessary, the refuse being collected from the bins in baskets. Generally disposal is by controlled tipping but during the year composting of a proportion of the refuse was undertaken, the final product being disposed of to the Department of Agriculture and to private individuals.

In Sibu and Miri collection and disposal of refuse is again undertaken by contractors. It is reasonably well done but improvement can be expected when these municipalities do the work themselves.

In all other towns and townships simple refuse removal and disposal services operate and are in generally satisfactory.

(c) Water Supplies

Efficient piped water supplies existed in Kuching and Sibu. Kuching's supply is gravitated from a controlled catchment area in a range of hills some eight miles to the west of the town. No treatment is undertaken but the water is of excellent quality. The quantity available is hardly sufficient for the needs of the growing town and an interrupted service only is available in some areas. During the drier periods of the year real shortage of water occurs. A new pipe line is at present being laid and it is expected that the completion of this work will see an improvement in the supply position. Nevertheless, an alternative water source to augment the present service is essential, and preliminary investigations were carried out to obtain such an additional supply.

The Sibu water supply is drawn direct from the heavily polluted Rejang River, a short distance up river from the town. The water is stored and treated with alum and chlorine and the supply is adequate in quality and quantity.

In Miri water supplies are not entirely satisfactory. One small supply controlled by Government provides water to the Government residential area. Precipitation with alum is the only treatment given. The Sarawak Oilfields Limited has its own supply and from it provides a limited quantity of water to the bazaar. The supply is inadequate in quantity and an additional source of supply is very necessary.

Certain other small townships have piped supplies which are reasonably satisfactory. In rural areas the rivers provide the usual source of supply but in some places wells are utilised. These latter sources are almost invariably open to contamination and there is little doubt that they contribute materially to the high incidence of intestinal infection in rural areas.

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(d) Food

In all towns and bazaars food premises operate under Licence and are subject to inspection by Medical Department staff. In the three main towns qualified health inspectors are available and also in several of the smaller townships. Where no health inspector is available, supervision is exercised by the hospital assistant (dresser) in the station.

Methods of manufacture of food for sale, and conditions of storage and preparation for sale are too often primitive and the public health staff have an uphill fight, against the conservatism of the people, to achieve improvement. Nevertheless, their supervision and efforts are achieving some progress.

A major public health problem is presented by the food hawker. The numbers are very great and the scope of their trade much larger than in many other countries, extending virtually to the preparation of full meals. Food handling methods are, in general, crude. Efforts are made to control their numbers but, in the larger towns especially, these efforts are often vitiated by the unlicensed hawker.

In the towns the markets are under municipal control and are inspected by public health staff. Reasonable standards were maintained throughout the year.

There are very few cattle in the country and milk production is negligible. Imported powdered milk and condensed milk meet the needs of the people.

(e) Housing

In the towns the shortage of housing referred to in previous reports continued and, once again, it can be said that such building as did take place did little to affect the shortage. Building costs during the year reached fantastic levels and greatly retarded progress. In the previous report it was estimated that some 700 houses were required in Kuching merely to offset existing overcrowding in the Bazaar area alone. The position in 1951 remained unaltered, and it seems clear that a deficit of such magnitude is most unlikely to be met by private effort but will require public action by way of a major housing scheme.

Early in the year the Manager of the Singapore Improvement Trust visited Sarawak at the invitation of Government to advise on the housing problem in Kuching. He recommended, inter alia, that provision be made for housing 1,000 families in artisans' quarters and workmen's flats, and that in spite of current high building costs the scheme should go forward at once. However, by the end of the year it had not been found possible to implement these recommendations.

In the towns, other than Kuching, no surveys have yet been carried out but it is probable that investigation would reveal in them circumstances similar to those obtaining in the Capital.

The typical bazaar premises through the country is the "shop house" designed by the Chinese traders to meet their desire to live and trade in the same place. They are generally double storied, but may have three stories, and are erected in rows. The frontage is usually eighteen feet and the depth one hundred feet. In theory the ground floor accommodates the trading activity, almost invariably retail trade, and the upper story the living quarters access to which is through the shop, but kitchen, bathroom and latrine also are placed on the ground floor and domestic and trading activities are intermingled. The narrow frontage and relatively great depth of the premises render adequate lighting

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and ventilating by natural means extremely difficult. These circumstances added to the overcrowding which seems to be inevitably associated with these premises produce conditions inimical to good living and conducive to the spread of infection. In such an environment tuberculosis inevitably flourishes.

Much new building is required to rectify this very unsatisfactory state of affairs and it is clearly necessary that the present shop house design must not be perpetuated.

In rural areas housing problems are not so acute. The Malay kampong house built of temporary materials and raised some eight to ten feet above ground level is a more satisfactory structure from the point of view of healthy living than is the permanent bazaar shop house. It is will lit and ventilated, even in the most primitive examples.

In the interior among the Kayans and the Dayaks the term house has an unusual meaning. Here the "longhouse" is a communal one and, in effect, consists of a village of anything upwards of ten houses under one roof. It consists of a row of rooms, sometimes as many as sixty or more, each occupied by a family, and a long wide enclosed verandah where all communal activities are undertaken and where the bachelors live. It is raised above the ground, sometimes twenty feet or more, and is often of massive construction. Lighting is usually defective and the interior of the house is gloomy. There are no latrines and night-soil and refuse, being discharged through the floor to the space below the house, are disposed of by the pigs.

It is natural to expect that infection would be a serious matter among peoples living in such circumstances. Exact information is still lacking but there are indications that this is so and there is little doubt that tuberculosis infection introduced from the bazaar trading centres could establish itself and spread readily in such an environment. Investigation will probably reveal this to be the case.

V. Communicable Diseases

(a) Endemic Diseases

(i) Tuberculosis

The Chest Clinic service, initiated in Kuching late in 1950, developed rapidly and a considerable amount of work was accomplished in spite of staff difficoulties resulting in a period of stagnation for two months in the middle of the year. Public interest, in, and response to, the service was very great and attendances at times threatened to overwhelm available resources. The following figures indicate the work carried out by the Clinic and also the magnitude of the tuberculosis problem in Kuching.

Total attendances		16,116
Total New Attendances		2,500
Total New T.B. Cases		637
Number Tuberculin Tested in Clinic		2,397
Negatives	401	or 17%
Positives	1996	or 83%
Number Tuberculin Tested in Schools		8,024
Negatives	5687	or 71%
Positives	2337	or 29%
Number given B.C.G. in Clinic		401
" " " " Schools		5,687
Number of X-ray film taken		1,426

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Close liaison was maintained between the Clinic and the General Hospital which still has the only special tuberculosis beds, to the number of 50, in the Colony. These beds were constantly full, generally with cases referred to the hospital from the Clinic. However, there were far more cases than beds and out-patient treatment with Streptomycin and P.A.S. was largely resorted to. Home conditions of patients were investigated and visits paid by health inspectors and health visitors. It was not, however, found possible with the staff available to undertake domiciliary treatment om any substantial scale.

There was financial provision during 1951 for additional tuberculosis beds at other hospital centres, namely, Simanggang, Sibu and Miri, but, owing to building difficulties, although construction was underweigh in each case, the badly needed additional beds were not yet available when the year closed. However, by mid-1952 the number of special tuberculosis beds available will be doubled.

Reference was made in the last report to the possible formation of an anti-tuberculosis association to enlist voluntary aid. In April, the Anti-Tuberculosis Association of Sarawak was formed at a meeting in Kuching sponsored by the Social Welfare Council. The objects of the Association are to aid and supplement by all practical means the efforts of the Government to combat the infection of tuberculosis throughout the Colony, and its efforts are at present directed towards three main objectives, namely, the provision of treatment centres, the provision of relief and health education. The Association was extremely active during the year and raised funds exceeding $100,000. Its first aim is to erect in Kuching and present to Government a suitable building to accommodate the Chest Clinic Service. Plans were prepared but unfortunately owing to difficulties with regard to the site, building operations had not commenced by the end of December. Nevertheless there is every prospect of the work starting early in 1952.

The activities of the Association did much to focus public attention on, and interest in the problem of tuberculosis and much useful health educative work was done.

In other urban centres the problem was, in proportion, as great as in Kuching but it was not possible to make any organised approach to it. In a remote area of the Colony, namely the Fifth Division, a limited tuberculin survey was carried out in a rural tribal group, the Muruts, among whom tuberculosis was reported to be rife. The percentage of positives at 83% for all age groups was high for a rural population and arrangements are being made to initiate B.C.G. vaccination.

During the year the expected assistance from WHO/UNICEF to carry out tuberculosis survey work and B.C.G. vaccination did not, unfortunately, materialise although as the year closed the project had been approved and it was expected that the team of a doctor and a nurse was likely to arrive in the Colony early in 1952. They will work for a year, nine months in Sarawak and three months in Brunei. The request made to World Health Organisation for equipment for mass radiography and other equipment for the Chest Clinic was not approved but arrangements have been made to provide these in 1952 from the Colony's funds.

(ii) Malaria

Malaria incidence was unexceptional during the year. Few cases were recorded in the towns although hyperendemicity continued in the rural areas.

The Borneo Malaria Research Unit continued to be mainly preoccupied with work in North Borneo but it did manage to carry

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out preliminary surveys in areas of the Fifth Division of Sarawak and in parts of Brunei. However, over the larger area of Sarawak the malaria map remains blank and the problems of the Sarawak vectors remain to be solved.

In 1949, A.sundiacus was apparently incriminated as a vector at Miri and this appeared to explain the coastal epidemics of malaria which had occurred from time to time in the past. However, during 1951 the Malaria Research Unit recorded non-viable bodies resembling sporozoites, but definitely not sporozoites, in the salivary glands of A.sundiacus. This casts considerable doubt on the findings at Miri in 1949 and thus the role of A.sundiacus in the transmission of malaria in Sarawak is again uncertain. A very great deal of investigation is required of this and other species of mosquitoes and it is hoped that more investigational work will be carried out in Sarawak in the near future. During 1951 application was made to the World Health Organisation for assistance in this regard, by the provision of an entomologist to carry out investigation and experimental control. The Organisation was prepared to assist and by the end of the year plans were sufficiently well advanced as to give rise to the real hope that the work would commence during the first quarter of 1952. Thus with the Malaria Research Unit in North Borneo and United Nations personnel working in Sarawak, the tempo of investigation should be materially heightened.

During the year the total number of cases diagnosed as malaria at hospitals and dispensaries was 5,778, as compared with 6,689 cases in 1950, a very substantial reduction. As in the past the vast majority of these cases were diagnosed on clinical grounds.

(iii) Leprosy

The number of cases admitted to the Leper Settlement during the year was 41 as compared with 66 in 1950, 59 in 1949 and 67 in 1948. The incidence of the disease does not, in consequence, appear to have changed to any great extent and certainly does not appear to have increased.

The Settlement population at the end of the year was 436 compared with 444 at the beginning of the year, the reduction, in spite of the year's admissions, being achieved very largely by discharges of patients who had become bacteriologically negative as a result of treatment with the sulphone drugs. These during the year numbered 34. Each year since 1947 there has been a steady increase in the number of persons cared for in the Settlement with a consequent increase in the cost of operating the institution. For this reason alone a reduction in numbers is very welcome.

All persons discharged from the Settlement continued under oral D.D.S. treatment and had to report periodically for examination to the medical centre nearest to their homes. In the few instances of default those concerned were, as a disciplinary measure, returned to the Settlement. Several discharged cases found to have become bacteriologically positive once more were also returned to Settlement. There is no doubt at all that the use of the sulphone drugs has led to an entirely different outlook on this disease and persons admitted to the Settlement no longer feel that they are being subjected to a life sentence. However, problems are arising with regard to the re-absorption of discharged persons into the community and much education of the public at large is still required to enable the cured leper to be accepted with confidence by the people.

(iv) Poliomyelitis

There was no epidemic outbreak during the year. Only

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six sporadic cases were recorded, one in Kuching, two in Sibu, one in Sibu Rural Area and two in other smaller centres in the Third Division. The last case occurred in August. All were paralytic cases and no deaths were reported.

(v) Yaws

This infection is met with all over the country and cases still frequently turn up at the hospital outpatient departments in the towns, the patients having come for treatment from nearby rural areas. However, there have been indications in the past two years that the incidence is declining and certainly fewer cases are being diagnosed now at outstation dispensaries and the travelling dispensaries than two years ago. There is at least a possibility that the decline may be due in part to treatment which is, in many areas, more readily available than it was in the past before the advent of the travelling dispensaries. During the year 11,930 cases were recorded at hospitals and dispensaries as compared with 7,592 cases in 1950 and 15,370 cases in 1949.

(vi) Diphtheria

The incidence of this infection was not unusual in 1951. The number of cases recorded was 78 as compared with 46 cases in 1950 and 82 in 1949. Of the seventy-eight cases, sixty-two were recorded in Sibu.

(vii) The Enteric Fevers

The number of typhoid cases notified was 70. The comparable figures for the three previous years were 76, 107 and 153 and thus the decline in incidence was maintained. No epidemic occurred and the cases occurred sporadically.

(viii) Dysentery and Diarrhoea

Intestinal infections are very common in urban as well as rural areas, and dysentery and diarrhoea are diagnoses very frequently recorded by hospital assistants in outstations. This is not surprising in view of the low sanitary standards of such a large proportion of the population. What is surprising, perhaps, is that no major epidemics occurred during the year.

(ix) Helminthiasis

The proportion of the population harbouring intestinal parasites is very high. The commonest infestation is with the round worm, ascaris, but hookworm is also very common indeed, particularly in rural areas.

(x) Venereal Diseases

These diseases occur in all parts of the country but generally speaking the incidence is not unduly high even in the towns. During 1951, the number of cases of gonorrhoea diagnosed was 1,246, and of syphilis 1,357. The comparable figures for the previous year were 1,353 and 1,391.

Nevertheless these diseases are of great importance as was demonstrated early in the year by an investigation carried out in the Paku River of reported low fertility of the population. This investigation revealed a high sterility rate among the women and more than suggested that this was occasioned by venereal infection.

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(xi) Deficiency Diseases and Malnutrition

Gross malnutrition is uncommon in these days in Sarawak and deficiency diseases in severe form are not frequently encountered. Admissions to Kuching and Sibu Hospitals classified as "Avitaminosis and other Deficiency States" numbered 66.

However, undernourishment in varying form is not uncommonly seen in infants at the Welfare Clinics and in older persons at the outpatient departments. Much of this is due to faulty cumstoms and ignorance and, in such a prosperous period as the present, there can be little that is due to poverty. In certain areas of the country, although there is no accurate measure of the degree of malnutrition, it is known that, at certain times of the year, food supplies are deficient and the people go short while waiting for the new harvest.

(b) Non-endemic Diseases

No case of the major pestilences, plague, smallpox and typhus, occurred in the Colony during 1951. Typhus has never been recorded in Sarawak and it is considerably more than twenty years since cholera or plague occurred. Smallpox occurs in neighbouring territories and, on one occasion, early in the year, action was called for following reports of the infection in longhouses in Indonesian territory close to Sarawak's frontier. Widespread vaccination was carried out and no cases appeared in this territory.

VI. Port Health Administration

Port health administration is now based upon the Port Health Regulations, 1951 and the Port Health (Air Navigation) Regulations, 1951 made under the Prevention of Disease Ordinance. These regulations replaced the Quarantine Rules, 1932 which were inadequate in scope and not in accord with modern practice. The new rules operated satisfactorily but they will require amendment in due course to bring them into line with the 1951 International Sanitary Regulations.

Three ports in the Colony, namely, Kuching, Sarikei (for Sibu) and Miri are first ports of call for vessels from overseas. At each of these ports formalities are conducted by health inspectors but medical officers are available to deal with abnormal situations.

Kuching Airport remained the only airport in the Colony at which aircraft from overseas make a first landing. The Airport is a designated sanitary aerodrome and a local area.

The epidemiological intelligence services of the World Health Organisation were received regularly and were of great value. Quarantine measures were declared during the year against Pontianak, Moulmein, Samarinda, Haiphon, Hanoi, Phu Quoc Island, Baria, Tayninth, Soctrang, Sourabaya, Madura, Balikpapan, Bangjarmassin, Uthaitani, Prachinburi Province, Rangoon, Mergui, Fukuoko, Phum Penh, Timbang Village Bangkalan Regency.

No infected vessels or aircraft entered the Colony's ports during 1951.

Shipping statistics for the port of Kuching are set forth in Appendix III.

/VII.

VII. Maternity and Child Welfare Services

(a) Welfare Clinics

As in the previous year three centres were in operation, two in Kuching and one in a rural area fifteen miles from Kuching. These were supervised by the Lady Medical Officer, who also had duties in the General Hospital, and by a Health Sister. The latter was on overseas leave during the year but, fortunately, during her absence the WHO/UNICEF sister in charge of the Domiciliary Midwifery Service, was able to carry out her duties.

The service continued to be very popular and there was a substantial increase in the number of attendances. The work was, however, seriously hampered by shortage of local personnel and until additional staff can be obtained there is no possibility of expanding the service either in Kuching or in other centres such as Sibu and Miri where it is greatly needed. Inadequate and unsuitable accommodation also hindered the work of the central clinic in Kuching.

The main centre in the Central Dispensary caters mainly for the Chinese, the Kampong Clinic exclusively for the Malays and the 15th Mile Clinic almost exclusively for the Land Dayaks. Attendances at all three centres showed a material increase over those of the previous year. Figures of attendances are shown below.

	Main Centre	Kampong Centre	15th Mile Centre
Infants			
Total attendances	6002	614	2051
Total number of home Visits	3377	-	-
Ante-natal Cases			
Total attendances	6847	346	629
Visited at home	994	-	-
Post-natal Cases			
Total attendances	1060	56	148

The figure for home visits includes the Main Centre and the Kampong Centre. A number of Land Dayak compounds were visited from the 15th Mile Centre.

(b) Domiciliary Midwifery Service, Kuching.

Reference was made in the previous report to a proposal to start a domiciliary midwifery service in Kuching with the object of relieving pressure on the limited number of obstetric beds in the General Hospital and also to provide improved facilities for the training of midwives. The scheme was initiated in March and was under the care of the WHO/UNICEF Midwife Tutor whose term of service was extended by a year to enable her to establish the service on sound lines. In the event, this lady resigned in October to get married but by then the service was operating smoothly and the local staff nurse who understudied the Midwife Tutor was fully capable of carrying on on her own. The service was staffed initially by the Staff Nurse, three trained midwives and one pupil midwife, the intention being as time went on to increase the number of pupil midwives. However, when the year closed it had not been found possible to increase staff and two trained midwives and two pupils were engaged on the work.

Cases suitable for home delivery are selected through the ante-natal clinics and are visited in their homes before the birth. The staff is on call through the twenty-four hours at the General Hospital and proceeds to the homes by bicycle. After

delivery visits continue for ten days when the case is then handed over to the health visitor concerned.

During the nine months of its operation, 388 home deliveries were carried out by the service which is now firmly established and greatly appreciated by the public. A pleasing feature is the increasing use made of the service by the Malays who are very reluctant to seek hospital treatment.

VIII. Hospitals, Dispensaries and Other Institutions concerned with the Public Health

As in the previous year Government operated three hospitals, twenty-four outstation dispensaries and seventeen travelling dispensaries. Of the latter sixteen were river craft and one a road vehicle. The great majority of the outstation dispensaries have rest beds and simple inpatient treatment is provided. The average number of beds is six and the maximum is twelve. Certain of the larger dispensaries are, in effect, miniature hospitals. The total number of Government hospital beds in use during the year was 536, namely 395 (including 100 mental beds) in Kuching General Hospital, 117 in the Lau King Howe Hospital, Sibu, and 24 in Simanggang Hospital.

In Miri, the Sarawak Oilfields Limited operated its own hospital of 124 beds primarily for its employees and their dependents, but, by arrangement with the Company its hospital facilities are made available to the public on repayment by Government. A similar arrangement with the Government of Brunei enables people of the Fifth Division of Sarawak to receive treatment in Brunei Hospital.

Appendix V lists the hospital beds available at 31st December, 1951, and also the number of dispensary rest beds.

The following table summarises outpatients and inpatients treated by the Department during the year. The corresponding figures for 1950 are shown for comparison.

	Outpatients						Inpatients	
	1951			1950			1951	1950
	New	Rpt.	Total	New	Rpt.	Total		
eneral Hospital, Kuching.	22700	70113	92813	19861	53645	73506	5271	5064
au King Howe Hospital, Sibu.	13206	15173	28379	12958	11334	24292	2929	3064
imanggang Hospital	18811	4279	23090	15722	3353	19075	591	698
ispensaries	92747	27958	120705	91638	24560	116198	1003	1163
ravelling Dispensaries (River)	81761	30619	112380	126639	44707	171346	--	--
ravelling Dispensaries (Road)	6298	1573	7871	14748	6340	21088	--	--
tinerant Dressers	--	--	--	7451	--	7451	--	--
Grand Total	235523	149715	385238	289017	143939	432956	9794	9989

In addition, a total of 1,830 inpatients and 21,513 outpatients were treated at the Sarawak Oilfields Hospital, Miri. The corresponding figures for the previous year were 1,690 and 21,486. Admissions to the Brunei State Hospital from the Fifth Division of Sarawak numbered 121 as compared with 37 in the previous year.

/These

These figures are in general satisfactory, showing increases in all hospital outpatient departments and outstation dispensaries but a substantial decrease of attendances at the travelling dispensaries.

Inpatients treated remained about the same as in the previous year, there being a slight increase in Kuching and a slight decrease in the other two Government hospitals and in the outstation dispensaries.

(i) General Hospital, Kuching (Including Mental Section)

This is the largest and most elaborate medical institution in the Colony and it finished the year with 295 general and special beds and 100 mental beds. It is the training centre for hospital assistants, nurses, midwives, etc.

Staff difficulties have already been referred to and these prevented the full bed accommodation in the hospital being brought into use. The ward which had to be closed down last year remained out of use and, at one period of the year another ward was virtually closed down. This was only temporary, however, and, with the employment of additional assistant nurses it was brought into full operation again.

No major capital works were carried out in the General Hospital during the year but there were further minor improvements such as the provision of a very adequate practical teaching room. There was further steady improvement in equipment and the replacement of old equipment has now been practically completed. The main operating theatre and the X-ray department were air-conditioned with great benefit to staff working in these rooms.

The Mental Hospital is situated in the same compound as the General Hospital, Kuching, and accommodation is neither sufficient nor of a satisfactory nature. Throughout the year there was some overcrowding which increased the difficulties of caring for these patients in inadequate buildings. As much as was possible in the circumstances was done but it cannot be claimed that a high standard of treatment was achieved or that the institution was much more than a place of restraint. It was necessary during the year to carry out extensive repairs to buildings and to provide more secure accommodation for certain violent and dangerous patients. But all this is merely a temporary expedient and no final answer to the problem. It was thus gratifying that considerable progress was made in the planning of the proposed new mental hospital to be erected in Brunei to serve the three British Borneo Territories. A site has now been agreed upon and plans of the institution have been prepared and accepted by the three Governments and there appears to be no reason why construction work should not commence during 1952.

The Laboratory, also sited in the compound of the General Hospital, Kuching, as usual functioned in a very satisfactory manner and there was steady improvement in equipment. Work was carried out not only for the Medical Department but also for the Customs and Agricultural Departments and specimens were even received from the Medical Department of North Borneo. The potential of this institution is considerable and its development will be more rapid when it will eventually be possible to post to it a full time medical officer.

Details of admissions to the General Hospital are shown in Appendix VI. Causes of admissions to Kuching and Sibu Hospitals and deaths are shown in Appendix VII. Appendices VIII and IX show the surgical and laboratory work carried out in Kuching.

/(ii)

(ii) The Central Dispensary, Kuching.

This is the Outpatient Department of the General Hospital although sited in the centre of the town one and a half miles distant from the hospital. It is accommodated in two separate buildings and shares the available space with the central Maternity and Child Welfare Centre, and the Chest Clinic. The accommodation is sufficient for the outpatient department alone and totally inadequate for the additional activities mentioned. Staff and public are greatly inconvenienced by the inevitable overcrowding and work is carried out under real difficulties. It is quite the most unsatisfactory medical institution in Kuching and its replacement by a suitable new building is a matter of great urgency. During the year plans were prepared for a new building to provide adequate accommodation for the male and female outpatient departments, the Maternity and Child Welfare service, the dental service, a laboratory and a pharmacy. The scheme received the approval of Government and appropriate provision was made in 1952 Estimates. The new building will be erected on a site adjoining that upon which the Anti-Tuberculosis Association of Sarawak will erect the building to accommodate the Chest Clinic Service so that laboratory and other services can be shared.

Outpatient attendances during the year are shown in the foregoing table.

(iii) The Dental Clinic, Kuching.

Dental staff remained unchanged from the previous year. It consists of one Dental Officer, one Dentist on contract, a dental mechanic and one hospital mandor. This team has its headquarters at present in the General Hospital, Kuching, but will, next year, be moved to the new Health Centre to be built in the centre of the town. Two fully equipped dental surgeries are available and also a dental laboratory.

The service provided was much appreciated and made full use of particularly by Government officers and their families. Treatment was also provided for hospital inpatients and outpatients, patients referred from the Maternity and Child Welfare centres, and also school children. Visits paid by dental staff to outstations at intervals throughout the year were extremely popular and much good work was done.

In September a local Chinese girl was granted a scholarship by the New Zealand Government under the Colombo Plan to go to Wellington for the two years' training for Dental Nurses. On her return she will be of great use to the Department in providing dental services to school children.

Details of the work carried out during the year by the dental staff are shown in Appendix X.

(iv) The Lau King Howe Hospital, Sibu.

This busy hospital which serves the largest administrative division in the Colony had available throughout the year only one medical officer and, also was without a Nursing Sister. A Senior Staff Nurse acted as Nursing Sister and did very well but there was not as much progress in the raising of standards of nursing and ward management as one would have wished for. This shortage of senior staff was a serious matter for it threw a considerable strain on available personnel and completely precluded visits by a medical officer to outstations in the Division.

A certain amount of building was achieved and internal reorganisation effected. With the completion of the mental

observation ward referred to in last year's report, the old mental cells in the main hospital building were gutted and converted into a small, but useful, children's ward. A new Nurses' Home was erected during the year and this will be occupied in January, 1952. Also work on a tuberculosis ward had commenced by the end of the year. But, as in Kuching, the greatest need of the Sibu Hospital is for a new and adequate outpatient department to be provided to replace the completely unsatisfactory temporary structure which at present is in use. Although funds were provided for this work it could not, unfortunately, be undertaken in 1951 and so it remains the priority work for 1952.

The old X-ray plant in the hospital broke down and was not considered worth repairing. To tide over the period until a new set could be ordered and delivered a portable apparatus was purchased in Singapore and installed in the Sibu Hospital. It gave very good service indeed and did all that was asked of it.

There was a slight fall in the number of inpatients treated as compared with the previous year. The 1951 figure was 2,929 as compared with 3,064 for the previous year. Outpatient attendances, however, showed a satisfactory increase, total attendance being 28,379 as compared with 24,292 in 1950.

Confinements conducted in the hospital number 341 as compared with 265 in the previous year.

The bed strength of the hospital at the end of the year is shown in Appendix III, and details of admissions in Appendix XI.

(v) Simanggang Hospital

The performance of this institution with twenty-four beds available throughout the year was very satisfactory. Admissions number 591 a slight reduction on the previous year's figure of 698. He again, however, outpatient attendances showed an upward trend. Total attendances numbered 23,090 and new cases 18,811. The corresponding figures for the previous year were 19,075 and 15,722.

It had been planned to provide during the year a new general ward of twenty beds, a small ward for infectious cases and a mortuary, but because of building difficulties none were available when the year closed although the two wards were under construction and should be completed early in 1952. It is planned gradually to increase the bed strength of this hospital to seventy.

(vi) Outstation Dispensaries

The number of outstation dispensaries functioning during the year was twenty-four, the same as in the previous year. One additional dispensary was erected in a very remote part of the country in the upper reaches of the Trusan River, to serve the Muruts, a population group much in need of medical care. It was now, however, found possible permanently to man this dispensary and visits at two monthly intervals by a hospital assistant had to suffice. Limited dispensary facilities were also made available to the small population in the remote Kelabit plateau.

Total attendances at these dispensaries, as shown in the table on page 17, were very slightly greater than in the previous year and this is considered a very satisfactory performance particularly as, throughout the year, for the first time, nominal charges were levied for attendances in the case of persons who could afford to pay.

Once again supervision of the work of the hospital assistants in these dispensaries was completely inadequate, as such

medical staff as was available was tied to the hospitals and was unable to travel in the Divisions. In spite of this, however, there were few instances indeed where unfavourable reports were received and there is no doubt that, unsupervised as they were, the hospital assistants gave good services to the public.

(vii) The Travelling Dispensaries
(C.D. & W. Scheme No. D.850)

The travelling dispensaries are native type boats (perahu) suitably adapted and powered by outboard motors. They ply on fixed stretches of river, calling at convenient points on fixed days each week. They are manned by a hospital assistant, an attendant and a driver. Simple curative services are provided at each calling station and, in addition, the boats function as river ambulances bring back to outstation dispensary or hospital those who require more elaborate treatment than can be provided from the travelling dispensary. There are sixteen of these units and they cover a very large area of the Colony's river system that was never, in the past, visited by medical staff.

On the whole these sixteen units operated satisfactorily throughout the year though the service was by no means free from trouble. In certain stations where facilities for engine maintenance were not good, engine troubles occurred, and with greater frequency as the year progressed. Interruptions to schedules were occasioned by this and in certain instances much travelling time was lost. It is abundantly clear that the successful continuance of this service, which has proved its value, is completely dependent on the organisation of facilities to service and maintain the engines, not at all an easy matter in such a country as Sarawak. The high speed outboard engines may not, perhaps, be entirely suited to the hard and continuous work entailed and thus, in anticipation of major capital replacement being necessary when the present C.D. & W. Scheme ceases at the end of 1952, arrangements were made towards the end of the year for a special boat to be constructed. An inboard Diesel engine was purchased and this will be installed in the new boat. Although the initial cost of this inboard engine is greater than the outboards, running costs will be very much lower, maintenance will be simpler and, it is hoped, reliability greater. Should this experimental unit prove a success a change to these inboard engines will be made, in most cases, when the present scheme terminates. Some high powered outboards will, however, continue to be necessary in the upper reaches of certain fast flowing rivers.

Total attendances at the travelling dispensaries fell from 164,778 in 1950 to 112,380 in 1951, a drop of about 30% This serious falling off of attendances can certainly, in part, be attributed to interrupted schedules but this is not the whole explanation. In the Dayak areas there is little doubt that with the wearing off of the novelty of the service there is less interest and only the sick now attend whereas before the sick and the curious sampled the new and readily accessible medicines. Nevertheless, certain District Officers on being asked to express opinion on the causes of the falling off of attendances have attributed it, in part, to a definite improvement in health.

(viii) The Leper Settlement

This institution is situated thirteen miles from Kuching and is accessible by motor road.

The population of the Settlement at the end of the year was 436, six persons fewer than at 31st December, 1950, in spite of there having been 41 admissions during the year. The steadily increasing population of the Settlement over the past

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few years had given cause for some concern as costs of operating the institution materially increased and accounted for a substantial proportion of the Medical Department's budget. Thus even the slight reduction achieved in 1951 is welcome indeed and in the light of modern treatment augers well for the future. Discharges from the Settlement during the year numbered thirty-four, considerably more than in any previous year and there were eleven deaths. Births in the Settlement numbered six. Practice is for confinements to be conducted in the Settlement hospital by a trained midwife from Kuching. On being born the child is taken to the General Hospital and cared for there until it is old enough to be adopted.

The racial and sex breakdown of the 436 inmates at 31st December was as follows:-

Race	Male	Female	Total
Chinese	139	34	173
Malays (including Melanos).	43	18	61
Dayaks	145	57	202
	327	109	436

During the year, as the first stage of a building replacement scheme one barrack block and one block of semi-detached quarters were erected. In addition the water supply was greatly improved by the installation of a new pumping engine and the replacement of much of the piping.

Treatment with basic sulphone continued for the greater part of the year but with a view to facilitating continuous treatment after discharge oral treatment with di-aminodiphenylsulphone tablets was latterly resorted to. The results of treatment have been good and the fact that inmates are being discharged has very greatly changed the patients' outlook with consequent improvement in morale.

The various voluntary organisations, such as the Red Cross, Rotary and the Chinese Associations continued to interest themselves in Settlement affairs and did much to bring colour and interest to the lives of the inmates.

Figures of admissions, discharges, etc. are shown in Appendix XII.

IX. Voluntary Agencies concerned with the Public Health

(a) British Red Cross Society - Sarawak Branch.

During 1951 the Branch continued its activities although setbacks were experienced owing to overseas leave, etc. of key personnel. The work was not confined to Kuching, there being active Divisions in Miri and Betong as well.

The ambulance service in Kuching and the First Division did excellent work until September. Then, unfortunately, the ambulance vehicle was involved in an accident and was a total loss. By the end of the year, a replacement was on order but had not yet reached the Colony. During the last quarter of the year the services of the Red Cross ambulance were greatly missed by the Department and by the peoples along its normal route in the First Division.

Welfare work in the General Hospital, Kuching, the Mental Hospital and the Leper Settlement was carried out as in the past.

Courses of lectures in First Aid and Nursing were held. The Blood Transfusion Service was again of great assistance to the Department and met all the demands placed upon it.

(b) The Sibu Benevolent Society

This voluntary body is the longest established and, perhaps, the most active in the country. Its headquarters are in Sibu but, by its constitution, it serves the whole of the Third Division. Of its activities, the most important are the provision of care for destitute aged persons and also chronic tuberculosis cases. A Home near Sibu caters for the former category, while the tuberculosis cases are cared for in a Nursing Home in Sibu itself. The nursing home buildings were very dilapidated and unsuitable and thus new premises were provided during the year. The Society provided the land and Government met the cost of erecting a new building.

The Society is supported mainly by public subscription but it also receives a monthly contribution from Government.

(c) Missions

During the year there was some increase in the medical activities of certain of the missions, their staff being augmented, in one case by a doctor, and in another, by a trained nurse and a public health nurse. Simple outpatient treatment continued to be provided at several mission stations and, at two, inpatients were cared for by nuns who are also qualified nurses.

X. Meteorology

Meteorological records are maintained by the Department of Lands and Surveys. Available data for the year is detailed in Appendix XIII.

APPENDIX I

SARAWAK MEDICAL DEPARTMENT

Qualified Medical Staff at 31st December, 1951

Name and Qualifications	Appointment	Date of Appointment to Present Post	Date of Appointment to Service	Remarks
J.M. Liston, M.B.,Ch.B.,D.T.M.& H., D.P.H.	Director of Medical Services	23.7.1947	29.7.1935	Transferred from Kenya.
L.J. Clapham, M.R.C.S.,L.R.C.P., M.B.,B.S.,D.T.M.& H.	Deputy Director of Medical Services	23.2.1950	29.3.1940	Transferred from Malaya.
E.H. Wallace, M.B.,Ch.B. (A)	Medical Officer of Health, Kuching, and Public Health Officer, Kuching.		30.5.1948	Had previously 12 years service in the Indian Medical Service. Also Medical Officer in charge, Leper Settlement.
J. Lomaz, M.B., Ch.B.	Medical Officer-in-Charge, General Hospital, Kuching, & Divisional Medical Officer, 1st Division.	9.2.1950	10.8.1949	
M.A. Rozalla, M.B. (Calcutta)	Medical Officer, General Hospital, Kuching.	1.4.1950	16.12.1949	
E.C. Dymond, L.M.S.S.(A),M.R.C.S., L.R.C.P.,D.P.H. (A)	Seconded for duty in Brunei as State Medical Officer.		1.5.1950	
E. Gemmell, M.B.,Ch.B.,D.T.M.&H.	Lady Medical Officer-in-Charge, Maternity & Child Welfare Clinic.	19.9.1949	19.9.1949	
P.P. Gopala Pillai, M.B.,B.S. (Madras)	Medical Officer-in-Charge, Simanggang Hospital, and Divisional Medical Officer, 2nd Division.	12.12.1949	15.10.1949.	Three years previous service on contract.
Wong Mook Foo, M.B.,B.S. (Hong Kong)	Divisional Medical Officer, 3rd Division, and Medical Officer-in-Charge, Lau King Howe Hospital, Sibu.	27.11.1949	27.11.1949	
H.W.W. Harcus, B.D.S., D.D.S.	Dental Officer	17.7.1949	17.7.1949	

Note: (A) Officers on Contract.

APPENDIX II

ESTABLISHMENT

	Approved	Available at 31.12.51	Remarks
Director of Medical Services	1	1	
Deputy Director of Medical Services	1	-	On leave
Medical Officers	11	6	One for Brunei
Lady Medical Officer	1	1	
Dental Officer	1	1	
Sanitary Superintendent	1	1	
Matron	1	1	
Matron, Grade II	1	-	For Brunei
Sister Tutor	1	1	
Health Sisters	2	1	
Nursing Sisters	9	2	One for Brunei

APPENDIX III

SHIPPING STATISTICS - PORT OF KUCHING

1951

ARRIVALS

PORTS	TRIPS	TONNAGE	CREWS	PASSENGERS
Singapore	175	72,610	4,900	3,090
Pulo Bukom	9	3,162	151	--
Malacca	3	30	14	--
Bangkok	6	4,882	331	--
Natuna Islands	21	292	101	--
Sambas	10	21	25	--
Singkawang	--	--	--	--
British North Borneo & Labuan	27	19,619	1,382	348
Brunei	7	611	80	26
Australia	--	--	--	--
TOTAL	258	101,227	6,984	3,464

DEPARTURES

PORTS	TRIPS	TONNAGE	CREWS	PASSENGERS
Singapore	137	49,358	4,015	1,715
Pulo Bukom	4	1,042	55	--
Malacca	3	30	14	--
Bangkok	3	2,591	107	--
Natuna Islands	17	153	63	--
Sambas	10	26	18	--
Singkawang	1	207	32	--
British North Borneo & Labuan	21	14,601	918	206
Brunei	2	70	20	--
Australia	1	126	8	--
TOTAL	199	68,204	5,250	1,921

APPENDIX IV

MATERNITY & CHILD WELFARE SERVICES, KUCHING.

Infant Attendances during 1951.

	Main Centre	Kampong Clinic	15th Mile Clinic
Number of cases entered in File	1,060	163	469
Total number of Attendances	6,002	614	1,980
Malays	448	614	8
Chinese	6,237	-	265
Dayaks	81	-	1,731
Others	236	-	-

Number of Home Visits paid to Infants

	Main Centre	15th Mile Clinic
Total number of visits	2,833	544
First visits	763	214
Repeat visits	2,070	330
Malays	899	10
Chinese	2,367	107
Dayaks	59	427
Others	139	-

Ante-natal Attendances during 1951

	Main Centre	Kampong Clinic	15th Mile Clinic
Number of Ante-Natal Cases entered in File	1,609	25	160
Total number of Ante-Natal Attendances	6,847	346	629
Malays	538	346	-
Chinese	5,983	-	208
Dayaks	147	-	417
Others	179	-	24
Number of Ante-Natal Cases known to have delivered			
Normal	1,138	54	147
Abortion	21	1	5
Stillbirths	6	-	-
Other complications	27	2	1
Deliveries unverified	303	-	-
Number of Ante-Natal Cases in File at end of 1951	571	86	80
Number of Ante-Natal Cases referred to Medical Officer	1,431	75	89

APPENDIX V

Hospital Beds at 31st December, 1951

Name and Location of Hospitals	Number and Category of Beds							Remarks
	General	Obstetric	Children	Tuberculosis	Infectious	Mental	Total	
General Hospital, Kuching	183	20	26	50	--	16	295	
Mental Hospital, Kuching	--	--	--	--	--	100	100	This is in the same compound as General Hospital
Lau King Howe Hospital, Sibu, 3rd Division.	61	16	12	--	18	10	117	
Simanggang Hospital, 2nd Division.	24	--	--	--	--	--	24	
	268	36	38	50	18	126	536	

APPENDIX VI

GENERAL HOSPITAL, KUCHING.

1951

IN-PATIENTS

Total number of admissions during the year	5,271
Total number of male patients admitted during the year	2,342
Total number of female patients admitted during the year	2,929

NATIONALITIES

Arabian	...	...	3
Burmese	...	...	2
Chinese	...	...	3,478
Dayak, Land	...	...	546
Dayak, Sea	...	...	442
Eurasian	...	...	32
European	...	...	139
Indian	...	...	120
Indonesian	...	...	19
Kayan	...	...	6
Kelabit	...	...	4
Kenyah	...	...	6
Malay	...	...	460
Melano	...	...	7
Murut	...	...	5
Philipino	...	...	1
Punan	...	...	1
		TOTAL	5,271

BIRTHS

Total number of births for the year		958
Male	....	503
Female	....	455

NATIONALITIES

Chinese	...	...	863
Dayak, Land	...	...	15
Dayak, Sea	...	...	6
Eurasian	...	...	3
European	...	...	7
Indian	...	...	15
Malay	...	...	48
Melano	...	...	1
		TOTAL	958

DEATHS

DEATHS

Total number of deaths for the year	258
Male	172
Female	86

NATIONALITIES

Chinese	204
Dayak, Land	30
Dayak, Sea	7
Eurasian	1
European	1
Indian	3
Indonesian	1
Malay	10
Melano	1
TOTAL	258

APPENDIX VII

Inpatient Returns from General Hospital, Kuching, and Lau King Howe Hospital, Sibu - 1951

		Cases	Deaths
A 1	Tuberculosis of respiratory system	361	46
A 2	Tuberculosis of meninges and central nervous system	15	7
A 3	Tuberculosis of intestines, peritoneum and mesenteric glands	6	1
A 4	Tuberculosis of bones and joints	23	-
A 5	Tuberculosis, all other forms	15	-
A 6	Congenital syphilis	8	3
A 7	Early syphilis	24	-
A 8	Tabes dorsalis	1	-
A 9	General paralysis of insane	9	3
A 10	All other syphilis	33	-
A 11	Gonococcal infection	26	-
A 12	Typhoid fever	58	8
A 13	Paratyphoid fever and other Salmonella infections	9	-
A 16	Dysentery all forms	108	1
A 18	Streptococcal sore throat	32	-
A 19	Erysipelas	5	-
A 20	Septicaemia and pyaemia	1	-
A 21	Diphtheria	69	12
A 23	Meningococcal infections	2	-
A 25	Leprosy	64	-
A 26	Tetanus	24	15
A 28	Acute poliomyelitis	6	-
A 30	Late effects of acute poliomyelitis and acute infectious encephalitis	2	-
A 32	Measles	6	-
A 34	Infectious hepatitis	16	-
A 37	Malaria	215	4
A 40	Filariasis	21	-
A 41	Ankylostomiasis	93	-
A 42	Other diseases due to helminths	221	-
A 43	All other diseases classified as infective and parasitic	137	-
A 44	Malignant neoplasm of buccal cavity	1	-
A 45	Malignant neoplasm of oesophagus	3	1
A 46	Malignant neoplasm of stomach	22	11
A 47	Malignant neoplasm of intestine, except rectum	1	1
A 48	Malignant neoplasm of rectum	4	-
A 50	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	1	-
A 51	Malignant neoplasm of breast	5	-
A 52	Malignant neoplasm of cervix uteri	31	4
A 53	Malignant neoplasm of other and unspecified parts of uterus	12	1
A 55	Malignant neoplasm of skin	4	-
A 56	Malignant neoplasm of bone and connective tissue	3	2
A 57	Malignant neoplasm of all other and unspecified sites	50	14
A 58	Leukaemia and aleukaemia	6	2
A 59	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	15	1
A 60	Benign neoplasms and neoplasms of unspecified nature	89	1
A 61	Nontoxic goiter	20	-
A 62	Thyrotoxicosis with or without goiter	25	-
A 63	Diabetes mellitus	30	1
A 64	Avitaminosis and other deficiency states	66	-
A 65	Anaemias	87	1
A 66	Allergic disorders, all other endocrine, metabolic and blood diseases	31	-
A 70	Vascular lesions affecting central nervous system	17	6

		Cases	Deaths
A 71	Nonmeningococcal meningitis	12	6
A 73	Epilepsy	3	-
A 74	Inflammatory diseases of eye	66	-
A 75	Cataract	19	-
A 76	Glaucoma	4	-
A 77	Otitis media and mastoiditis	12	-
A 78	All other diseases of the nervous system	134	5
A 79	Rheumatic fever	7	-
A 80	Chronic rheumatic heart disease	23	2
A 81	Arteriosclerotic and degenerative heart disease	23	9
A 82	Other diseases of heart	65	14
A 83	Hypertension with heart disease	2	-
A 84	Hypertension without mention of heart	17	-
A 85	Diseases of arteries	10	1
A 86	Other diseases of circulatory system	108	-
A 87	Acute upper respiratory infections	49	-
A 88	Influenza	86	-
A 89	Lobar pneumonia	61	7
A 90	Bronchopneumonia	102	41
A 91	Primary atypical, other and unspecified pneumonia	7	6
A 92	Acute bronchitis	130	-
A 93	Bronchitis, chronic and unqualified	97	3
A 94	Hypertrophy of tonsils and adenoids	7	-
A 95	Empyema and abscess of lung	8	1
A 96	Pleurisy	26	-
A 97	All other respiratory diseases	70	4
A 98	Diseases of teeth and supporting structures	30	-
A 99	Ulcer of stomach	92	2
A 100	Ulcer of duodenum	2	-
A 101	Gastritis and duodenitis	62	-
A 102	Appendicitis	127	-
A 103	Intestinal obstruction and hernia	45	-
A 104	Gastro-enteritis and colitis, except diarrhoea of the newborn	230	30
A 105	Cirrhosis of liver	22	3
A 106	Cholelithiasis and cholecystitis	17	-
A 107	Other diseases of digestive system	164	8
A 108	Acute nephritis	21	-
A 109	Chronic, other and unspecified nephritis	31	5
A 110	Infections of kidney	6	-
A 111	Calculi of urinary system	10	-
A 112	Hyperplasia of prostate	2	-
A 113	Diseases of breast	25	-
A 114	Other diseases of genito-urinary system	252	3
A 115	Sepsis of pregnancy, childbirth and the puerperium	23	2
A 116	Toxaemia of pregnancy and puerperium	24	3
A 117	Haemorrhage of pregnancy and childbirth	10	1
A 118	Abortion without mention of sepsis or toxaemia	127	-
A 119	Abortion with sepsis	2	-
A 120	Other complications of pregnancy, childbirth and the puerperium	135	12
A 121	Infections of skin and subcutaneous tissue	368	-
A 122	Arthritis and spondylitis	24	-
A 123	Muscular rheumatism and rheumatism, unspecified	35	-
A 124	Osteomyelitis and periostitis	32	-
A 125	Ankylossis and acquired musculoskeletal	11	-
A 126	All other diseases of skin and musculoskeletal system	83	2
A 127	Spina bifida and meningocele	1	-
A 128	Congenital malformations of circulatory system	2	-
A 129	All other congenital malformations	14	3
A 131	Postnatal asphyxia and atelectasis	3	2
A 132	Infections of the newborn	8	1
A 133	Haemolytic disease of new born	1	1
A 134	All other defined diseases of early infancy	10	2

		Cases	Deaths
A 135	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	9	-
A 137	Ill-defined and unknown causes of norbidity and mortality	113	6
	"E" Code. Alternative classification of Accidents, Poisonings, and Violence (external cause).		
AE138	Motor vehicle accidents	4	-
AE139	Other transport accidents	3	-
AE140	Accidental poisoning	16	-
AE141	Accidental falls	82	1
AE142	Accident caused by machinery	3	-
AE143	Accident caused by fire and explosion of combustible material	23	3
AE144	Accident caused by hot substance, corrosive liquid, steam and radiation	9	1
AE145	Accident caused by firearm	11	-
AE146	Accidental drowning and submersion	6	-
AE147	All other accidental causes	150	-
AE148	Suicide and self-inflicted injury	8	-
AE149	Homicide and injury purposely inflicted by other persons (not in war)	25	-
AN138	Fracture of skull	18	-
AN139	Fracture of spine and trunk	19	1
AN140	Fracture of limbs	81	-
AN141	Dislocation without fracture	4	-
AN142	Sprains and strains of joints and adjacent muscles	6	-
AN143	Head injury (excluding fracture)	9	4
AN144	Internal injury of chest, abdomen and pelvis	4	1
AN145	Laceration and open wounds	171	-
AN146	Superficial injury, contusion and crushing with intact skin surface	99	-
AN147	Effects of foreign body entering through orifice	19	-
AN148	Burns	41	6
AN149	Effects of poisons	11	-
AN150	All other and unspecified effects of external causes	4	-
	Normal Delivery(parturition)	950	
	Pregnancy	132	
	Lodger	78	
	For investigations	75	
	Mental observation	35	
	Vaccination Quarantine	1	

APPENDIX VIII

GENERAL HOSPITAL, KUCHING.

1951

OPERATIONS PERFORMED

Major operations	230
Minor operations	1380
Total	1653

Operation	No. of Operations	Chinese	Dayak	Malay	Others
Incision abscess	171	119	25	19	8
Aspiration abscess	3	2	--	--	1
" T.B. glands & instillation P.A.S.	1	--	--	1	--
Aspiration T.B. abscess & instillation streptomycin	4	3	1	--	--
Aspiration joint	4	1	3	--	--
Wound suture	296	188	25	58	25
Skin grafting	7	5	2	--	--
Nail avulsion	15	4	3	5	3
Excision subcutaneous cyst	18	11	3	2	2
" " tumour	13	7	3	3	--
" cervical gland	3	3	--	--	--
" inguinal gland	1	1	--	--	--
" Warts	1	1	--	--	--
" haemangioma	1	1	--	--	--
" gland periauricular area	1	1	--	--	--
Excision extra auricle	1	1	--	--	--
" growth scalp	1	--	1	--	--
" papilloma	4	3	1	--	--
" melanoma	1	1	--	--	--
" tumour neck	1	--	1	--	--
Scraping granulation tissue	2	2	--	--	--
Cautery granulation tissue	2	1	--	--	1
Excision and curettage mucoid cyst	1	1	--	--	--
Exploration sinus	2	2	--	--	--
Curettage and cautery growth	1	--	--	1	--
Debridement dead tissue	2	--	2	--	--
Biopsy	5	5	--	--	--
Excision ganglion	4	2	--	1	1
Dental extraction under G.A.	13	3	2	3	5
Incision carbuncle	2	1	--	1	--
Exploratory puncture swelling	7	5	--	1	1
Exploratory incision	8	4	1	3	--
Ligature bleeding vessel	3	2	1	--	--
Excision keloid	2	2	--	--	--
" " ankylosed joint	2	--	1	--	1
Incision and drainage breast abscess	8	8	--	--	--
Reduction simple fracture and splinting or application of P.O.P.	139	73	21	27	18
Reduction compound fracture and toileting	18	11	6	1	--
Reduction dislocation	7	6	1	--	--
Open reduction fracture	1	1	--	--	--
Manipulation joint	21	8	4	7	2
" " and application P.O.P.	3	1	--	2	--

/Application

Operation	No. of Operations	Chinese	Dayak	Malay	Others
Application P.O.P. various types	27	25	2	--	--
Insertion Steinmann's pin	5	--	5	--	--
" Kirschner's wire	1	--	1	--	--
Amputation digits	7	3	3	2	--
" leg	2	1	1	--	--
Excision specula of bone fragment	1	1	--	--	--
Sequestrectomy	3	1	1	--	1
Drainage osteomyelitis	1	--	1	--	--
Suturing fractured patella	1	--	--	1	--
Decompression depressed fracture skull	1	--	--	1	--
Removal Steinmann's pin & application P.O.P.	3	--	3	--	--
Removal calcanean spur	1	1	--	--	--
Separation adherent skin from bone	1	1	--	--	--
Appendicectomy	41	34	4	--	3
Appendicectomy & drainage	4	4	--	--	--
Drainage appendicular abscess	7	7	--	--	--
Laparotomy	11	5	5	1	--
Drainage general peritonitis	2	2	--	--	--
Repair perforated gastric ulcer	2	--	1	1	--
Gastrostomy	1	1	--	--	--
Intestinal resection and anastomosis	1	--	1	--	--
Cholecystostomy	2	2	--	--	--
Haemorrhoidectomy	15	14	--	--	1
Excision fistula-in-ano	5	5	--	--	--
Incision and repair imperforate anus	3	1	--	2	--
Anal dilatation	3	--	--	3	--
Herniorrhaphy (inguinal)	14	8	3	1	2
" (strangulated)	4	3	--	1	--
Removal foreign body cesophagus	2	1	1	--	--
Incision sichio-rectal abscess	2	2	--	--	--
Excision skin tag	1	1	--	--	--
Dilatation and curettage uterus	107	80	17	4	6
" " " " and cautery cervix	4	1	3	--	--
Dilatation cervix and rupture membrane	1	1	--	--	--
Gilliams ventro-suspension	1	1	--	--	--
Ovariectomy & appendicectomy	3	--	3	--	--
Caesarean section	12	10	1	1	--
" " & sterilisation	3	1	--	2	--
Sterilisation	20	19	--	1	--
" and dilatation and curettage uterus	1	1	--	--	--
Ruptured tubal pregnancy	12	8	4	--	--
Removal hydatidiform mole	5	5	--	--	--
Sub-total hysterectomy	5	2	3	--	--
Total hysterectomy	1	1	--	--	--
" " and ovarian cystectomy	1	--	--	1	--
Evacuation haematoma vulva	2	2	--	--	--
P.V. examination & E.U.A.	33	29	1	--	3
Perineorrhaphy	3	2	--	1	--
Ante version retroverted uterus	1	--	--	1	--
Excision cervical fibroid	2	1	1	--	--
Ant. post. colporrhaphy and perineorrhaphy	3	2	1	--	--
Ant. post. colporrhaphy and perineorrhaphy and amputation cervix	2	2	--	--	--
Ant. colporrhaphy	1	1	--	--	--
Post. colporrhaphy and perineorrhaphy	1	1	--	--	--
Plastic operation for stenosis vaginal orifice	1	1	--	--	--
Removal ovarian tumour	1	--	1	--	--

Operation	No. of Operations	Chinese	Dayak	Malay	Others
Removal broad ligament tumour	1	1	--	--	--
Excision skin across vagina	1	1	--	--	--
" Cervical polypi	2	1	--	--	1
Vaginal plugging	2	2	--	--	--
Amputation cervix	1	1	--	--	--
Removal ovarian dermoid cyst	1	--	1	--	--
External version - malposition pregnancy	7	7	--	--	--
Ovarian cystectomy and sterilisation	1	1	--	--	--
Ovarian cystectomy	5	2	3	--	--
Replacement inversion uterus	1	1	--	--	--
Removal pelvic tumour	1	--	1	--	--
Circumcision	130	7	2	118	3
Tapping hydrocele	2	1	--	--	1
Operation for cure of hydrocele	1	--	--	--	1
Removal adenoma breast	2	2	--	--	--
Mastectomy	1	1	--	--	--
Evacuation haematoma scrotum	1	1	--	--	--
Supra pubic cystotomy with removal of growth	2	2	--	--	--
Nephrectomy	1	1	--	--	--
Partial amputation penis	1	1	--	--	--
Supra pubic cystostomy and repair rupture urethra	1	1	--	--	--
Urethral dilatation with bougie	21	16	1	--	4
Insertion Depezzer's catheter	2	2	--	--	--
Passing metal catheter	6	6	--	--	--
Bladder sound	2	2	--	--	--
Removal urethral calculus	1	1	--	--	--
Hemithyroidectomy	7	1	6	--	--
Sub-total thyroidectomy	1	--	1	--	--
Secondary suture wound	9	6	2	1	--
Blood transfusion	37	30	3	4	--
Abdominal tapping	51	34	12	5	--
Cleaning of dressing of burns	29	16	6	7	--
Removal foreign body subcutaneous tissue	45	22	5	16	2
Incision and curettage infected sebaceous cyst	2	2	--	--	--
Exploratory puncture chest	12	11	1	--	--
Aspiration chest	22	19	3	--	--
Aspiration chest and Penicillin instillation	19	16	3	--	--
Aspiration chest and streptomycin instillation	5	4	1	--	--
Aspiration pericardial effusion	12	--	12	--	--
Lumbar puncture	49	33	10	3	3
" " and streptomycin instillation	13	8	--	5	--
Lumbar puncture and penicillin instillation	2	2	--	--	--
Prostoscopy	31	28	2	--	1
Venesection	1	1	--	--	--
Separation adherent tissue - eye	1	1	--	--	--
Injection local anaesthetic sciatica	2	--	--	1	1
E.U.A. external area	1	--	1	--	--
Exploratory puncture scar area	1	1	--	--	--
Removal foreign body throat	1	1	--	--	--
Tonsillectomy	2	2	--	--	--
" and curettage adenoid	1	1	--	--	--
Drainage tonsillar abscess	2	2	--	--	--
Nasal polypi removal	12	7	3	--	2
Nasal examination	20	14	3	--	3
Foreign body nose removal	5	4	--	--	1

/Nasal

Operation	No. of Operations	Chinese	Dayak	Malay	Others
Nasal plug	1	1	--	--	--
Cautery nasal septum	2	--	--	--	2
Incision and curettage chalazions	2	2	--	--	--
Excision pterygium	11	3	7	1	--
Cataract extraction	7	3	1	2	1
Foreign body eye removal	8	5	--	3	--
Ophthalmoscopy	3	2	--	1	--
Iridectomy	1	--	1	--	--
Foreign body ear removal	8	5	2	1	--
Laryngoscopy	4	4	--	--	--
Removal foreign body joint (bullet)	1	--	1	--	--
Auriscopy	1	1	--	--	--
Cataract operation (not completed)	1	--	1	--	--
Tracheotomy	2	2	--	--	--
Harelip repair	3	1	2	--	--
Ligature of omentum protruding through drainage tube	1	1	--	--	--
Phrenic crush	1	--	1	--	--
Induction A.P.	1	1	--	--	--
Refillings	30	30	--	--	--

APPENDIX IX

RECORD OF WORK CARRIED OUT IN THE LABORATORY, KUCHING, DURING 1951.

BACTERIOLOGY

	No.	No. Positive
Swabs cultured for C. diphtheria	1,284	52
Smears examined for M. tuberculosis	6,840	2,836
Guinea pig inoculation for tuberculosis	19	12
Smears examined for M. leprae	936	384
Blood cultures on suspected cases of Enteric Fever	92	24
Stools cultured for enteric organisms	81	13
Urines cultured for enteric organisms	26	2
Stools cultured for dysentery organisms	54	17
Smears examined for N. gonorrhoea	398	148
Cerebro-spinal fluids examined:-		
D. pneumoniae		4
Meningococi		2
M. tuberculosis		5
H. influenzae		2
Conjunctival smears examined:-	526	
Koch-Weeks bacillus		91
Morax-Axenfeld bacillus		29
Xerosis bacillus		51
N. gonorrhoea		2
Urines cultured	118	62
Dark ground examination	14	6
Water analyses	136	--
Food examination	15	--
Vaccines manufactured:-		
Cholera vaccine ...	76,000 c.c.	
Typhoid/paratyphoid vaccine ...	79,500 c.c.	
Autogenous vaccine prepared ...	6	
Cultured media prepared (32 types) ...	382 litres	

PARASITOLOGY

	No.	No. Positive
Stool Examination:-	15,830	
(a) Entamoeba histolytica		136
(b) Entamoeba histolyticacysts		5
(c) Entamoeba coli		3
(d) Lamblia intestinalis		42
(e) Blastocystis hominis		31
(f) Ascaris lumpriocoides		4,935
(g) Ankylostoma duodenale		1,365
(h) Oxyuris vermicularis		92
(i) Trichocephalus dispar		1,689
(j) Hymenolepis nana		2
Blood Examination:-	9,210	
(a) Subtertian malaria		196
(b) Benign tertian malaria		184
(c) Quartan malaria		86
(d) Mixed infectiouns (S.T. & B.T.)		4
(e) Mixed infections (B.T. & Q.)		3
(f) Microfilaria		16

PATHOLOGY

Pregnancy tests (Friedman's)	3	2

/CHEMISTRY

CHEMISTRY	No.	No. Positive
Water examination	122	
Milk examination	9	
Arrack examination	65	
Brandy examination	18	
Biochemical examination (quantitative)	386	
Biochemical examination (qualitative)	17,931	
Rubber coagulants ...	236 samples	

BLOOD WORK	No.	No. Positive
Bloods examined by Kahn's reaction	4,391	861
C.S.F. " " " "	18	5
Bloods " " Widal "	172	39
" " " Weil-Felix Reaction	172	--
Blood typings carried out	193	
Leucocyte enumerations	2,934	
Differential leucocyte enumerations	2,631	
Erythrocyte enumerations	5,160	
Haemoglobin estimation	5,036	
Blood films for abnormal cells	41	
Reticulocyte enumerations	8	
Bleeding time estimation	7	
Clotting time estimation	7	
Blood sedimentation rate estimation	2,814	

MEDICO-LEGAL WORK	No.
Toxicological examinations	84
Blood stain examination	34
Seminal stain examination	4
Miscellaneous	2
Autopsies (police cases)	17

APPENDIX X

GENERAL HOSPITAL, KUCHING

DENTAL DEPARTMENT

SUMMARY OF WORK 1951

Patients	Extractions	Fillings	Dentures	Repairs	Scales	X-Rays
Government Officers & Families	1,299	422	125	22	82	97
Clinic & Hospital Patients	1,920	6	18	--	4	20
School-children & Students	810	158	8	--	27	2
Prenatal	393	62	1	--	21	--
+Non-Government	151	136	17	8	21	36
TOTAL	4,573	784	169	30	155	155

+Non-Government patients classified here are those paying the maximum fees for treatment.

APPENDIX XI

LAU KING HOWE HOSPITAL, SIBU

1951

Total number of patients remaining from last year	87
" " " admissions during the year	2,929
" " " discharges " " "	2,739
" " absconded " " "	20
" " " deaths " " "	109
" " " patients transferred to Kuching	6
" " " " " " Nursing Home, Sibu	3
" " " discharges against Medical Advice	23
" " " " at own request	14
" " " lepers sent to Kuching	20
" " " lunatics " " "	11
" " " patients remaining at the end of the year	71

CLASSIFICATION OF ADMISSIONS

	Males	Females	Children	Total	
Natives	333	147	48	528	
Others	800	1,073	528	2,401	2,929

CLASSIFICATION OF DISCHARGES & DEATHS

Discharges	2,739
Absconded cases	20
Deaths	109
Transferred to Kuching Hospital	6
" " Nursing Home, Sibu	3
" " Kuching Leper Settlement	20
" " Kuching Mental Hospital	11
Discharges at own request	14
" against Medical Advice	23
Total number of births during the year	341
" " " major operations performed during the year	253
" " " minor " " " " "	2,033
" " " others (e.g. P.V. Aspirations etc.)	413

OUTPATIENTS RETURNS FOR THE YEAR 1951

Total number of new cases treated during the year	13,206
" " " repetitions during the year	15,173
Grand total	28,379
Daily average	77.75