Annual report / Medical Department, Fiji.

COLONY OF FIJI.

MEDICAL DEPARTMENT

ANNUAL REPORT

FOR THE YEAR

1947.

THE ACTING DIRECTOR OF MEDICAL SERVICES to THE HON. THE COLONIAL SECRETARY.

Suva, 28th June, 1948.

Sir,

I have the honour to submit, for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary conditions prevailing in the Colony of Fiji for the year 1947, together with the returns appended thereto.

I have the honour to be,
Sir,
Your obedient servant,

R. J. SNODGRASS,
Acting Director of Medical Services.

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1948.

LEGISLATIVE COUNCIL,

FIJI.

COUNCIL PAPER, No. 40.

Medical Department

(Annual Report for 1947.)

I—ADMINISTRATION.

(1) ESTABLISHMENT AND STAFF.

(*a*) Medical Directorate.

The year 1947 was regarded as a period of administrative consolidation. It was realized that numerical weakness in medical and technical staff and a general shortage of materials would preclude any great extension of medical services, but in retrospect appreciable progress has been made and a sound foundation laid for future expansion and development.

2. A decentralized district medical organization is now established and in many areas the subordinate rural system is working on the lines which will eventually co-ordinate more efficiently the various health services; a Colony tuberculosis registration system has been inaugurated and is gradually being built up; it was possible to employ a medical officer for most of the year on health work in the schools in Suva and valuable information has emerged from the survey; the building programme planned for the year has not progressed to the extent that was hoped and with the exception of additions to Lautoka Hospital and the Central Leprosy Hospital, Makogai, no major expansion or reconstruction of medical units has been undertaken.

3. The post of Director of Medical Services remained amalgamated with that of Inspector General, South Pacific Health Service. The joint administrative system worked satisfactorily although the executive officers at Headquarters were handicapped by the vacancy in the post of Secretary which was not filled during the year. Dr. J. C. R. Buchanan held the joint post of Inspector General, South Pacific Health Service and Director of Medical Services, Fiji and Dr. K. R. Steenson acted as Deputy Director of Medical Services during Dr. Snodgrass' absence from the Colony on leave, from the 23rd April to 31st December, 1947.

4. The Chief Health Inspector, Mr. C. Kendrick, and the Nursing Superintendent, Miss D. T. Pedersen, continued to serve on the Headquarters Staff.

(*b*) Medical, Nursing and Technical Staff.

5. The Departmental establishment is set out in Appendix I to this report. There were five vacancies in the establishment of Medical Officers at the beginning of the year. The temporary appointment of one of the supernumerary Medical Officers, Dr. H. D. N. Livingstone, expired in February and Dr. H. S. Evans, who retired from the post of Assistant Director of Medical Services in 1946, was re-employed temporarily in October as Medical Officer at the Nadi Airport.

6. Dr. A. S. Frater, M.B.E., assumed duty as Principal of the Central Medical School on the 1st January, Dr. D. W. Hoodless having retired from the post at the end of the previous year.

7. The arrangements for the recruitment of trained nursing staff from New Zealand continued and the establishment of 67 was well maintained during the year. Towards the latter part of the year some difficulty was experienced in arranging for the secondment of New Zealand nurses and the Director of the Division of Nursing, New Zealand, arranged for the appointment from New Zealand of a limited number of Australian Nurses on a temporary basis for six months in the first instance. If these nurses elect to remain for a two year tour, they will be eligible for concessions similar to those granted to New Zealand Nurses appointed on a two year contract.

8. Arrangements were made for a locally trained Sister to proceed to New Zealand under a Government bursary to enable her to undertake a post-graduate course in Maternity training It is hoped to arrange for at least one Sister to proceed to New Zealand each year for further training under this scheme.

9. Two Fijians and two Indians graduated from the Central Medical School in December and the total number of Assistant Medical Practitioners on the active strength at the end of the year was 74 Fijians and 12 Indians. Five Fijian Assistant Medical Practitioners were on secondment to Western Pacific High Commission territories at the end of the year.

10. The number of locally trained Assistant Nurses, all of whom are at present Fijians, increased from 130 in 1946 to 152 at the end of 1947. Of these 73 were employed in Hospitals and Dispensaries and 79 as District Nurses in the field. In addition there were 130 pupil Nurses training at the Suva and Lautoka Hospitals. A total of 25 pupil Nurses graduated during the year.

(2) LEGISLATION.

11. The following laws, regulations etc., were enacted:—

Ordinance—

No. 27 of 1947, to amend the Public Health Ordinance. (Cap. 107).

Proclamations—

No. 5 of 1947, declaring that Calcutta is a place infected with smallpox.

No. 6 of 1947, specifying drugs to which Part III of the Dangerous Drugs Ordinance shall apply.

No. 17 of 1947, declaring that Egypt is a place infected with cholera.

No. 18 of 1947, declaring that Australia is a place infected with acute anterior poliomyelitis.

Regulations—

Regulations made under the Leper Ordinance (Cap. 110) relating to the detention of lepers convicted and sentenced for offences, dated 3rd January, 1947.

Regulations made under the Public Health Ordinance (Cap. 107) amending the Public Health Regulations, 1947, relating to certificates of inspection for new buildings, dated 20th June, 1947.

Regulations made under the Quarantine Ordinance (Cap. 108) relating to the schedule of charges for quarantine and port health services, dated 1st July, 1947, and 23rd December, 1947.

Regulations made under the Public Hospitals Ordinance (Cap. 106) relating to free hospital treatment for members of the British Merchant Navy, dated 7th August, 1947.

Regulations made under the Quarantine Ordinance amending the Quarantine (Aerial Navigation) Regulations, 1946, dated 3rd December, 1947, and 23rd December, 1947.

Miscellaneous—

Order under section 69 of the Public Health Ordinance (Cap. 107) amending the First Schedule to the Ordinance relating to infectious diseases, dated 16th January, 1947.

Resolution of the Central Board of Health under section 9 of the Public Health Ordinance (Cap. 107) relating to the Rural Sanitary District of Nadi, dated 20th June, 1947.

(3) FINANCE.

12. The following table shows the revenue and expenditure of the Department during 1947, based on figures available on 30th April, 1948:—

Gross Expenditure	£293,839
Revenue	27,850
Net Expenditure	265,989

13. The total expenditure includes an allocation from Colonial Development and Welfare funds of £15,762 for Mosquito Control (Anopheline Prevention). Excluding this amount, and taking the revised estimate of the total expenditure of the Colony as £2,096,417, the gross cost of the medical and health service was 13·26 per cent of the total Colony expenditure, or 20s. 7·85d. per head of the population.

14. The rising cost of expenditure per head of the population in the past 11 years is shown in the following table:—

TABLE I—COST OF MEDICAL SERVICES PER HEAD OF THE POPULATION.

Year.	Population.	Expenditure *per caput.*	Remarks.
1936	201,086	8 0·77	
1939	215,030	10 7·42	
1942	233,895	10 0·78	
1944	246,485	12 0·81	£30,614 free grant from C.D. and W.F. deducted.
1945	254,676	14 1·67	£26,264 free grant from C.D. and W.F. deducted.
1946	260,468	16 6·38	£14,880 free grant deducted; £5,000 for new X-ray plant included.
1947	269,274	20 7·85	£15,762 free grant from C.D. and W.F. deducted.

Increasing costs of drugs and stores, equipment and feeding of patients are mainly responsible for the increase.

(4) MEDICAL STORES AND EQUIPMENT.

15. There was some difficulty in maintaining the supply of medical stores and equipment during the year owing to delays in delivery and shortages of supply. Supplies of essential drugs, anaesthetics etc., were maintained. It has not been possible to build up a reserve of supplies against the possible occurrence of an epidemic, and the ever increasing price of drugs and medical stores has caused some concern.

16. The total value of drugs, instruments, appliances, clothing, bedding and equipment issued from the Medical Store during 1947 was £38,003 4s. 7d.; of this total, £133 17s. 9d. represented free issues to Missions and £890 11s. 2d. was issued on repayment to the Western Pacific High Commission territories and other private accounts. The amount expended on stores for Child Welfare Work was £3,047 2s. 10d.

II—PUBLIC HEALTH.

(1) GENERAL REMARKS.

17. The incidence of disease is based on notifications received from each district in the Colony. It must be realized, however, that the figures represent only those cases that have been seen by a Medical Practitioner or Assistant Medical Practitioner. Although the figures, except in the case of the larger hospitals, are not an exact record, they illustrate the trend of disease incidence.

(2) COMMUNICABLE DISEASES.

18. *Influenza* was prevalent with its greatest incidence during the period March to June. It was more prevalent in the North Western districts than other parts of the Colony and the greatest number of cases occurred amongst Fijians. A total of 1,879 cases was notified.

19. *Mumps.*—Eight hundred and forty-five cases of mumps were notified, the greatest incidence being in the Suva area. The disease was probably introduced from Western Samoa and was most prevalent during the period September—December.

20. *Measles.*—Forty-two cases were reported during the year.

21. *Dengue Fever.*—This disease was prevalent during the year, particularly in the North Western districts. In all, 318 cases were notified, but it is believed that the incidence was much higher.

22. *Infantile Diarrhoea.*—Seven hundred and eighty cases were reported, the greatest incidence being during the months of June and July when nearly half the total cases occurred.

23. *Tuberculosis.*—Four hundred and fifteen cases of pulmonary tuberculosis were notified and 71 cases of other forms of tuberculosis. The greatest number of cases were found in the Suva Urban and Rural Sanitary Districts and the Province of Tailevu.

24. *Dysentery.*—A total of 451 cases of dysentery occurred as follows—Bacillary dysentery 250, Amœbic dysentery 50 and unclassified cases 151.

25. *Typhoid Fever.*—Sixty-five cases were reported with the greatest incidence in Tailevu and Lomaiviti Provinces.

(3) VENEREAL DISEASE.

26. *Gonorrhoea.*—Two hundred and ninety-four cases of gonorrhoea were reported for treatment. The majority of cases were in the urban and township areas of the Colony.

27. *Syphilis.*—One hundred and twenty-seven notifications were received; of these 56 showed primary lesions, 21 secondary lesions and 47 tertiary lesions.

28. The tertiary cases are of little significance as the diagnosis is based, in most cases, on serological examinations and a positive result might either be due to syphilis or yaws.

29. The increase in the number of primary and secondary cases, however, cannot be viewed with complacency and steps are being taken to deal with the situation.

(4) IMMUNIZATION AND PROPHYLAXIS.

30. Mass immunization against typhoid has been carried out in all areas where typhoid has occurred. Anti-Diptheria and anti-Whooping Cough immunization is carried out on a voluntary basis at all Public Health Centres.

31. The racial and monthly incidence of communicable diseases is shown in Appendix III.

(5) TUBERCULOSIS.

32. The organization preparatory to the tuberculosis survey, for which a grant has been made from the Colonial Development and Welfare Fund, was inaugurated. The system is that all suspected cases of tuberculosis are reported by the Assistant Medical Practitioner to the nearest centre where diagnosis can be confirmed by sputum examination and by radiology. A record of positive cases and contacts is kept in each dispensary and contacts are followed up by the Medical and Nursing staff. A central Colony Register is maintained at Tamavua Hospital and details of all positive cases and deaths from all parts of the Colony are sent to the Medical Officer in charge for entry in the Master Register. The system is not in full operation and cannot be until more field laboratory equipment is available, but a Colony wide registration is being built up and will become progressively more complete.

(6) LEPROSY.

33. *Central Leper Hospital, Makogai.*—The work of this important hospital, which serves many islands in the South West Pacific, is fully described in the Report by the Medical Superintendent, Dr. C. J. Austin, O.B.E., which forms Appendix VI to this report.

(7) FILARIASIS.

34. The campaign to eradicate this disease, which began in June 1944, is proceeding. With an increase in the number of trained Inspectors, instruction in Mosquito Control is available in most Provinces. The idea is primarily to educate the people in a knowledge of the cause of the disease and how to control the intermediary host, Aedes Scutellaris pseudo-Scutellaris, by keeping villages and the surrounding areas clean and clear of undergrowth and so prevent the breeding and harbouring of the Aedes Scutellaris pseudo-Scutellaris.

35. Of the fourteen Provinces of Fiji, seven are now under routine control and frequent inspection visits are made by the Inspectors. Three more Provinces should come under routine control about the middle of 1948, when the original larval and blood surveys of these three Provinces are expected to be completed.

36. In two years' time every Province should have the services of trained teams.

37. The personnel at the end of the year included 24 Inspectors and three Supervising Inspectors. Up to the end of 1947 a total of 34,172 blood tests had been made producing an average microfilarial rate of 19·2 per cent.

38. The response and co-operation of the Fijian people is slowly but steadily growing. It is considered that persuasion through knowledge will give better results in the end than compulsory methods, at least until native beliefs and prejudices are broken down.

39. Of the controlled villages 65 per cent are in a much better hygienic condition since the campaign started. The remaining 35 per cent are not yet up to the required standard.

(8) DENTAL HEALTH.

40. Increasing attention is being paid to dental health in the Colony, but the qualified staff is still hopelessly inadequate to deal with more than the fringe of the problem. In this connexion, an application was made in 1947 for a grant under the Research vote of the Colonial Development and Welfare Fund to enable dental research work to be undertaken. The survey of school children to which reference is made in Part III (5) (School Hygiene) makes it quite clear that the prevalence of dental disease in the younger generation is most serious and the preventive aspect is now receiving close attention.

41. There is still only one Assistant Dental Practitioner in the field and he has been employed in the Cakaudrove Province for most of the year. One of the four students now in training should qualify in 1949 and the preventive propaganda, which has now been started, can be intensified.

42. An Assistant Dental Practitioner was posted to the Province of Cakaudrove for the purpose of examining all school children. During the year, 1,616 children were examined in the age group 5—16 years. Five hundred and sixty-six children were found to have dental defects. This represents 34 per cent of the total examined. The average number of defective teeth per child was two. Prophylactic treatment included 398 fillings; 653 extractions were performed.

(9) DIETETICS AND NUTRITION.

43. During the year Miss Abraham was appointed temporary dietitian by the South Pacific Board of Health. She conducted investigations in Fiji and other territories. As a result of her investigations, a Guide to Diets has been written and is in the hands of the publishers. This Guide should prove of value to Assistant Medical Practitioners, Nurses and Institutions.

(10) VITAL STATISTICS.

44. The estimated population at the end of 1946 and 1947 is shown in Appendix IV. A Census of the population was taken in 1946. This was the seventh population Census since the Colony was ceded in 1874 and the total population and racial distribution was found to be as follows:—

Europeans	4,594
Part-Europeans	6,129
Fijians	118,083
Indians	120,414
Chinese	2,874
Others	7,544
Total	259,638

45. The percentage increase since the preceding Census in 1936, 30·88 per cent, was higher than at any previous Census of the Colony. A noteworthy statistical feature of the 1946 Census was the fact that the total Indian population overtook the total Fijian population during the period since the preceding Census. Since the cessation in 1916 of the recruitment of agricultural workers from India under indenture, the increase in the Indian population has been maintained mainly through natural causes. There has been a steady, but smaller, increase in the Fijian population figures since the Census of 1911. The following figures show the population increase since the 1936 Census of the two races:—

	Actual increase.	Percentage increase.
Fijians	20,419	20·9
Indians	35,412	41·7

46. The Census Report draws attention to the fact that 32·1 per cent of the entire population of the Colony is under 9 years of age and 56·2 per cent of the population is under 21 years of age. It can be assumed that, unless there are unforeseen circumstances, the percentage increase in the population will continue to rise.

47. The 1947 figures show that the rate of increase disclosed by the 1946 Census is being maintained. The Fijian infant mortality figure was 74·88 per *mille* compared with 79·67 in 1946 and 68·10 in 1945, which was the lowest since records have been kept. The Indian figure, 36·59, was the lowest on record. The crude birth and death rates graph has been fairly level during recent years.

(11) MALARIA CONTROL (ANOPHELENE PREVENTION)

48. Endemic malaria and the anophelene mosquito has not yet spread to the east of longitude 170°E. Cases of malaria have been reported in the Colony but these have all been imported and the majority are relapse cases in persons who have been in malarious countries, many of them ex-members of the Fiji Military Forces who served in the Solomon Islands during the war.

49. Interchanges of population between Fiji and other contiguous malarious countries mean that there is a real danger of the introduction of malaria and the anophelene mosquito by ship or aircraft. It has, therefore, been necessary to continue anophelene prevention measures in and around the main air and sea ports.

50. The sum of £65,000, which was originally granted from Colonial Development and Welfare Funds, had been expended by the end of 1945. Maintenance work and some capital outlay in protecting existing works by regrading drains, preventing and repairing storm erosion and scouring at outfalls was necessary. The sum of £13,300 was expended in 1946 and £12,100 in 1947 on this work and expenditure was met by additional grants under the Colonial Development and Welfare Act.

51. Work ceased at Nausori Airport in August, following the gazetting of Nadi as the sole port of entry for planes from malarious countries. One Assistant Mosquito Inspector, assisted by one searcher, was left at Nausori to keep a check on mosquito breeding and types.

52. The Nadi Airport was maintained in good order throughout the year from the mosquito control point of view. An area of 1½ miles radius from the aerodrome parking area was regularly inspected and, where larvæ were located, remedial action was taken immediately.

53. Maintenance and remedial work for the Suva Town area was continued, the area adjacent to the wharf receiving particular attention. Drains were weeded and cleaned and possible breeding grounds were regularly sprayed with oil. The Suva Town Board conducts a campaign in the Suva Town area and regular house to house inspections are carried out and notices served on the occupiers of premises on which mosquito larvæ are found.

III—HYGIENE AND SANITATION.

(1) ADMINISTRATION.

54. The administration of the Public Health Ordinance is vested, by the terms of that Ordinance, in the Central Board of Health and is decentralized by the Board to Local Authorities. The system was fully described in the Annual Medical Report of 1945 and there has been little material change.

55. The Local Authority for the Suva Rural Sanitary District met monthly and gave particular attention to the closing and demolition of buildings unfit for habitation in the suburbs of Suva.

56. The work of other Local Authorities has been actively maintained. Initiative in many cases is cramped by the lack of funds and of suitable office accommodation.

57. The work of the Health Inspectors and Assistant Health Inspectors during the year included the following:—

(*a*) *General Sanitary Inspections.*—37,448 inspections were carried out as the result of which 14,720 sanitary defects were remedied. 2,770 written notices were issued.

(*b*) *Food Supplies and Premises.*—3,555 inspections were made of food premises (shops eating houses, ice cream premises etc.) and 1,027 improvements to such premises were completed during the year. Food inspection was well maintained in closely settled areas and unsound foodstuffs were condemned and destroyed in all districts. 225 samples of foodstuffs were taken for analysis.

(*c*) *Supervision of Erection of New Buildings.*—Outside the Town of Suva, Health Inspectors act also as Building Surveyors and during the year dealt with 810 applications involving buildings to the value of £644,615.

(*d*) *Legal Proceedings.*—In 56 instances legal proceedings were instituted for offences against the Public Health or Pure Food Legislation.

(2) MEAT INSPECTION.

58. Responsibility for meat inspection in most districts, including Suva, was transferred to the Department of Agriculture during the year. Prior to handing over these duties, meat inspectors of the Medical Department gave practical training in meat inspection work to members of the staff of the Department of Agriculture.

(3) SEWAGE DISPOSAL.

59. The installation of septic tanks was encouraged in all suburban and country districts where means existed for the satisfactory disposal of effluent. Reinforced concrete latrine slabs were manufactured by the Medical Department and sold throughout the Colony at cost price.

(4) WATER SUPPLIES.

60. All town and township public water supplies are under Government control. The Suva supply is chlorinated, but receives no other treatment and, after heavy rain, discolouration of the water occurs. The Nausori supply has not yet been completed. 103 samples of water were taken for examination by Health Inspectors.

(5) SCHOOL HEALTH, HYGIENE AND DIET.

61. Special attention was paid to school health and hygiene during the year and an intensive health survey of school children in Suva was completed.

62. The officer employed in these duties (Dr. F. A. Thomson) was appointed Assistant Medical Officer of Health in Suva and, as her appointment was temporary, her duties were not only to survey the health of school children, but to build up an organization which could be carried on by a health sister and subordinate staff. Particular attention was paid to correlating faults found on school inspection with home conditions and so a sound system of home visiting has been

built up. As the work is based on the office of the Medical Officer of Health, Suva, it is possible to co-ordinate school and home inspection, for which the school health sister and her staff are responsible, with the tuberculosis follow-up system which is in the hands of an Assistant Medical Practitioner. The clinic for infants and pre-school children is conducted by another health sister, but the work there is also done in liaison with school and home welfare staff. Close contact has been maintained between the pathological laboratory, the Colonial War Memorial Hospital and the Dental Clinic and school inspection cards and propaganda literature are prepared in consultation with officers of the Education Department. No claim is made that the organization is complete, but a very great deal has been accomplished and a sound foundation has been laid on which a valuable social service can be built up.

63. The foregoing refers principally to Suva, but, in the smaller towns and townships and in rural areas, school inspection by Medical Officers of Health, Health Sisters, A.M.Ps. and subordinate nursing staff are regularly carried out insofar as the rapid expansion of activities of the Education Department and difficulties of staff and terrain permit. There, as in Suva, the policy of the Medical Department is to co-ordinate the work done by all branches and to endeavour to ensure that the causes of morbidity are traced back to the homes of the people and preventive measures are applied there.

64. Dr. Thomson's report on her survey of school children, in the course of which 7,281 were examined, forms Appendix V, but a few of the salient points emerging from it may be briefly summarized here.

65. Only 39 per cent of all children were classified as being in perfect health and by races the percentages were:—

Fijians	36 per cent.
Indians	45 ,,
Part-Europeans	33 ,,
Europeans	20 ,,

66. Nutritional ill health was often found, the following signs being taken as an indication that all was not well:—

1. Poor muscle tone and faulty posture.
2. Dental defects.
3. Mouth changes—
   (*a*) Oral sepsis.
   (*b*) Eroded tongue.
   (*c*) Cheilosis.
4. Skin changes—
   (*a*) Dry skin.
   (*b*) Phrynoderma.
   (*c*) Crazy pavement and mozaic.

67. Dental disease was the sign most commonly found. Among the Fijians 43 per cent showed some dental defect ranging from 33 per cent at five boarding schools to 88 per cent in four village schools in the Lautoka area. Among the Indians 48 per cent of the children, all in the Suva area, showed dental defects. In both racial groups the 5—8 age group was the worst. Generally, signs of malnutrition were mild, only a few extreme cases being reported. It is significant that anæmia was not found to be frequent or severe. 498 children were found to be suffering from Helminth or Protozoa infestations, the percentage distribution being as follows:—

Infection.	All Races.	Fijian.	Indian.	Part-European.	European.
Hookworm	27·3	33·8	24·1	34	10·8
Ascaris	9·0	4·3	11·8	7·6	....
Giardia E.	2·8	3·8	2·5	4·2	1·0
Histolytica	2·5	8·2	0·7	2·8	4·0
Others	11·0	17·8	9·5	13·9	4·0

68. There is no doubt that a great deal of investigation is necessary to correct faulty dietetic habits which are rapidly developing as the more wholesome traditional foodstuffs of the native population are losing ground to white bread and store goods which appear to be more readily come by in urban areas. The conclusion of Dr. Thomson's report is instructive and is quoted verbatim:—

> " It will be seen from this report that although only 39 per cent of all the school children examined were found to be in good health, serious disease was not common.
>
> Such nutritional defects as were found were not of severe degree, and the small amount of work already done to correct these defects seems to point that correction is not a matter of great difficulty. It is satisfactory to note some improvement in the children with even one year's supervision and it is hoped there will be further improvement next year.
>
> NOTE.—I should like to add the following notes already made in an earlier report and which it is felt might assist in the improvement of the general health.
>
> *Diet.*—Following enquiries and observations made at the schools there is no doubt that the children's lunch could be easily improved. Money is wasted on unsuitable ice blocks and buns. With guidance it has been found that more suitable food will be purchased. It is hoped that the diet pamphlets will help here, and the teaching staffs are most anxious to help. Home visiting and advice will do much to assist parents in the choice of a suitable lunch to take to school. School gardens can be further planted with citrus, pawpaw etc. and the fruits picked and eaten by the children at school.

Fatigue.—Children, in many cases, arrive at school tired and before the morning session is completed are in a state of considerable exhaustion, many of them yawning and ready for sleep. This seems to be due to a variety of home factors—bad feeding, shortage of sleep, lack of fresh air during the night, and over-crowding. Sometimes work has to be done in the morning, before the child leaves home for school, and this is sometimes followed by a long walk to school.

Were it possible to give the children a few minutes rest on arrival at school, say after roll call time, this to be followed by an inspection for cleanliness, including particularly heads and noses, much good would be done. After the preliminary inspection, ten to fifteen minutes simple breathing and postural exercises would be most beneficial, especially for the younger children. Postural exercises under careful individual supervision, rather than violently energetic drill, is much more likely to give results—indeed few of the children are in a physical state to benefit at all by violent drill. These simple exercises could be done in the class rooms and so wet days need not put a stop to the daily correction of faulty postures".

IV—SEAPORT AND AIRPORT HEALTH AND QUARANTINE.

69. The ports of entry are Suva, Lautoka and Levuka. Suva is the only port of entry for ships from malarial ports. The air ports are Nadi and Nausori for land planes and Laucala Bay for sea planes. The total number of ships and aircraft arriving at these ports from overseas during the year was as follows:—

Ships.		Aircraft.	
Suva	170	Nadi	560
Lautoka	4	Nausori	103
	174	Laucala Bay	98
			761

70. The total number of aircraft that arrived in the Colony in 1946 was 320. The increasing importance which Fiji is assuming as a focal point in Pacific air services is evident from the figures quoted above. Towards the end of the year over 70 overseas aircraft were arriving at Nadi each month. A resident Medical Officer was stationed at Nadi during the year. All aircraft from malarial or other countries, which necessitate special quarantine precautions, are required to land at Nadi or Laucala Bay near Suva. The Medical Officer of Health is required to be in attendance for all aircraft arriving at Laucala Bay and this has thrown an appreciable amount of additional work on him. Strict precautions are still being observed against the possible ingress of the Anophelene mosquito by sea or air.

71. Thirty overseas vessels and 52 local vessels were fumigated during the year and 21 international certificates of deratization were issued. No case of specified convention diseases was encountered in ships entering the ports of Fiji.

72. The quarantine islands of Makuluva and Nukulau were maintained during the year and improvements were made to the buildings on the latter island. The islands were inspected periodically by the Medical Officer of Health and Health Inspectors.

V—MATERNITY AND CHILD WELFARE.

73. The infant mortality graph (Appendix IVa) reflects credit upon those who have been engaged on child welfare work over the past years. The importance of this work has continued to be stressed by the Department and good work has been done by the Health Sisters and District Nurses employed on child welfare duties and the pre and post-natal care of mothers.

74. The number of Health Sisters was increased from 5 to 6 during the year and the number of Assistant Nurses employed on district work varied from 67 to 79. In addition to the full time staff, a trained nurse resident in Gau Island and a Mission Sister in Rotuma assisted in supervision on a part-time basis. The work of a Health Sister in Fiji is extremely arduous and although the European Sisters do sterling work they cannot visit many villages more than once or twice a year and it is necessary to rely largely on the Fijian Assistant Nurses to carry on the work, particularly in the more inaccessible parts. Unfortunately it has not been possible to fill vacancies for Health Sisters at Labasa and Savusavu on Vanua Levu.

75. The mobile Clinic, operating in the Suva and Rewa areas, continued to give good service. The vehicle is in a poor state of repair and it is hoped to effect a replacement in 1948.

76. Representative figures for attendance at the main stationary centres are set out in Table III below.

TABLE III—ATTENDANCES AT CHILD WELFARE CENTRES.

	Suva.	Lautoka.	Total.
Europeans	2,007	241	2,248
Part-Europeans	1,175	177	1,352
Fijians	6,162	875	7,037
Indians	5,074	968	6,042
Others	1,587	42	1,629
Home Visits	10,713	8,660	19,373
Total	26,718	10,963	37,681

77. Rural areas were covered by Health Sisters stationed at Ba, Sigatoka and Nausori. A total of 24,091 attendances at clinics in these districts was recorded.

78. The following Table shows the cases treated at the Maternity Annexe to the Colonial War Memorial Hospital, where 24 beds are available:—

TABLE IV—RETURN OF MATERNITY CASES IN THE C.W.M. HOSPITAL.

	Fijians.	Indians.	Others.	Total.
Admissions	240	472	93	805
Not in Labour	32	137	9	178
Births—Male	111	162	43	316
,, —Female	99	182	41	322
Total Ante-natal visits	846	1,775	270	2,891

79. Considerable obstetric work is carried out in District and Rural Hospitals within the limits of available facilities.

VI—HOSPITALS AND DISPENSARIES.

A.—GENERAL REMARKS.

80. Hospital units in the Colony are classified as general or specialized hospitals, district hospitals, rural hospitals and rural dispensaries. The general and consulting hospital in the Colony is the Colonial War Memorial Hospital, Suva. Apart from being the main hospital for South East Viti Levu, patients are admitted from all over the Colony for specialized investigation and treatment. Modern facilities for the treatment of Tuberculosis are provided at Tamavua Tuberculosis Hospital, located on an elevated site 5 miles from Suva. This hospital receives patients referred to it from all parts of the Colony. Patients from all parts of the Colony are also received at the Mental Hospital in Suva. District Hospitals are situated at Lautoka, Labasa and Levuka and are equipped to meet all emergency demands. It is planned to extend and improve facilities at these hospitals for the role they have to perform. Considerable extensions have been made to Lautoka Hospital and, when completed, the hospital, which is also a training school for Assistant Nurses, will be better able to meet the demands of the North Western districts. Rural hospitals are designed to serve as clearing stations or buffer units to district and general hospitals, while rural dispensaries are essentially out-patient units with a few sick bay beds. They are destined to develop eventually into rural health centres.

81. In addition to the Government Hospitals there are the following four small private hospitals in the Colony:—

Nurse Morrison's Maternity Home, Suva.
The Methodist Mission Indian Women's Hospital, Ba.
The Cottage Hospital, Ba
The Waiyevo Cottage Hospital, Taveuni.

Each of these is subsidized by Government.

82. The number of attendances at Government Hospitals and Dispensaries is recorded in Appendix II. Brief notes on the activities of the larger units are recorded in the following paragraphs.

B.—THE COLONIAL WAR MEMORIAL HOSPITAL, SUVA.

83. The capacity of this unit is 250 beds, including cots. In addition there are 24 beds in the obstetric annexe. In order to obtain space for this number of beds, use has been made of verandahs and a temporary wooden hut ward. The average occupied bed rate in 1947 was 202·79.

84. Dr. W. Worger continued to perform the duties of Medical Officer in Charge during the year with Miss J. Sinclair, who returned from leave in March, as Matron. Mr. K. J. Gilchrist was Surgeon Specialist. Two medical officers and a dental surgeon were posted for duty at the hospital. The nursing staff consisted of the Matron, the Assistant Matron, 21 sisters, 16 nurses (locally trained) and 82 pupil nurses.

85. A total of 820 operations, covering all fields of major surgery, were performed in the operating theatre and 815 minor operations in the out-patients department. Fort-eight operations were performed by the Assistant medical practitioner in charge of the eye clinic, S. T. Uluilakeba. 2,457 persons attended the eye clinic. Radiographic examinations were carried out on 5,285 patients during the year, involving the use of 8,095 films. The new X-ray plant gave every satisfaction. The following figures show the number of prescriptions made up in the Dispensary:—

Paying Out-patients Department	2,809	prescriptions dispensed.
Non-paying Out-patients Dept.—Indian ..	14,613	,,
Fijian ..	6,876	,,
In-patients	182	,,
Total ..	24,480	

86. The work in the obstetric annexe has been described in Section V above.

87. Work at the hospital laundry again increased considerably during the year and a total of 893,997 articles were laundered, compared with 790,641 articles in 1946, when Tamavua Hospital was opened. The coal consumption was 693 tons. The staff consisted of one supervisor (Miss Ryder), one assistant supervisor, 10 machine boys and 26 laundresses. Much of the machinery in the laundry is nearing the end of its useful life and the probability of extensive replacements and probably a larger and better equipped laundry will have to be faced in the near future. Another branch of the Colonial War Memorial Hospital in which there has been a great increase in activity over recent years is the sewing room. Miss Grace Shah, who has been in charge for 6 years, is assisted by a staff of three. 628 uniforms have been made, in addition to 4,000 other articles. 24,385 articles have been mended.

C.—TAMAVUA TUBERCULOSIS HOSPITAL.

88. Dr. L. G. Poole continued to act as Medical Officer in charge of the Tamavua Hospital, which was opened in 1946, assisted by Miss E. E. Butt, as Matron. The total capacity of the hospital, which was constructed as a military unit during the war, is 278 beds, but finance and staff considerations have limited the number of beds to 168, which was the daily average number of in-patients during the year. The subordinate staff is supervised by 9 nursing sisters and the Medical Officer in charge is assisted by a clerk, a dietitian and 2 Assistant Medical Practitioners.

89. The figures for admissions, discharges and deaths in 1947 were as follows:—

	Fijians.	Indians	Others.	Total.
Admissions	185	58	26	269
Discharges	117	42	24	183
Deaths	52	10	2	64

90. An endeavour is made to restrict admission to cases in which quiescence or cure can be expected. The result of this policy is reflected in the higher proportion of discharges over admissions, compared with the figures of 1946.

91. The X-ray unit was installed in December, 1946, and the activities of this Department started in January, 1947. The following figures show the number of X-ray examinations carried out during the year:—

In-patients	580
Out-patients	22
Staff	206
Total	808

In addition, 577 X-rays taken at the Colonial War Memorial Hospital were examined by the Medical Officer in Charge. Of these, 231 films revealed positive evidence of tuberculosis. Of the positive cases, 65 were admitted as in-patients, the remainder were either considered unsuitable for sanatorium treatment, or placed on the waiting list. In doubtful cases, arrangements were made for a further X-ray in three months' time.

92. The occupational therapy unit has been very successful. The diversity of products has been increased and such items as chairs, small stools, blinds etc. have been in great demand. It is hoped to arrange for discharged patients to be able to carry on with the work in which they have been engaged, if they wish to do so, during the rehabilitation period.

93. Light recreational facilities are provided for bed patients who have passed out of the rest period. The library has been augmented through outside assistance and reading matter of all varieties has been donated to the hospital. Concerts were given twice during the year and three choirs visited the patients in the wards. Films were shown once a week until towards the end of the year, when the projector broke down. Her Royal Highness Princess Elizabeth has graciously given permission for the purchase of a sound projector for Tamavua and for the Central Leper Hospital at Makogai from surplus funds collected by the people of the Colony for her wedding gift. It is hoped that the new equipment will be installed in 1948.

94. A school teacher was available from among the patients and the teaching of children patients for one or two hours during the morning was continued.

95. About 46 acres of the 70 acres of land on which the hospital is situated have been brought under cultivation. Contour planting under the direction of the Department of Agriculture has been undertaken with good results. The Hospital is now fully self-supporting in most of the native foodstuffs and there should soon be ample supplies of such fruits as bananas, pineapples etc. The foodstuffs produced over the last eight months of the year have been valued at £1,345. A poultry farm was also established during the year which will, it is hoped, prove a useful adjunct.

D.—MENTAL HOSPITAL, SUVA.

96. Dr. J. R. Reid carried out the duties of physician in charge of the Mental Hospital until towards the end of the year, when he was seconded for service in Tonga. He was succeeded by Dr. K. R. Steenson, Acting Deputy Director of Medical Services. Mr. H. Leaver continued to perform the duties of resident head attendant, assisted by Mr. M. Fenn as assistant attendant. The remaining staff consisted of 7 male Samoan warders, 6 Samoan wardresses, 2 night warders and 2 cooks. It was necessary to employ two additional Samoan wardresses during the year.

97. The total number of patients treated during the year was 112, of which number 88 were patients remaining over from the previous year, while 24 were new admissions. Fourteen patients were discharged unconditionally. There were 7 deaths, and at the end of the year 92 patients remained in the hospital.

98. The sex and racial distribution of patients remaining on the 31st December and the classification of total admissions by type of disease is shown in Table V.

TABLE V.

A.—Racial and Sex Distribution.

	Male.	Female.	Total.
European	2	2	4
Fijian	10	11	21
Indian	31	24	55
Other	10	2	12
	53	39	92

B.—Distribution by Type of Disease.

Type.	No. of cases.	No. of deaths.
Manic-depressive insanity	88	6
Paranoia and paranoid states	10	1
Schizo-phrenia	2	..
Reactive and toxic insanities	..	..
Epilepsy	5	..
Mental Deficiency	5	..
Hysteria	2	..
	112	7

99. The Board of Visitors, of which the Attorney-General is Chairman, in a report dated 3rd January, 1948, recorded " that the very high standard in management and control of the hospital, which has been noted in previous annual reports, has been maintained and reflects the greatest credit on the staff ".

E.—DISTRICT AND RURAL MEDICAL UNITS.

100. A complete list of these units is given in Appendix IX and the outline map of the Colony (Appendix X) attached to this report indicates the distribution throughout the Group.

101. The figures representing admissions to, and attendances at, the three district hospitals are shown in Appendix II and give some indication of the work done. The diseases treated are included in the consolidated statement in Appendix VII.

F.—AIDED HOSPITALS.

102. *The Methodist Mission Hospital for Indian Women at Ba* is under the medical charge of Dr. (Mrs.) D. Delbridge, assisted by a staff of three Nursing Sisters and eight Nurses in training. The daily average number of in-patients was 19·7, 867 patients were admitted to Hospital and 5,545 patients were treated as out-patients; 120 obstetric cases were admitted to Hospital. The Hospital serves a useful purpose, catering for the medical and obstetric needs of the local Indian population.

103. *The Cottage Hospital, Waiyevo, Taveuni* is managed by a committee of local residents, of which the Medical Officer is Chairman, and is maintained by public subscription augmented by a Government subsidy. It is situated close to the rural hospital. Sixteen cases were admitted for treatment during the year.

104. *The Cottage Hospital at Ba* has five beds and is in medical charge of the Colonial Sugar Refining Company's medical officer, assisted by a resident Nursing Sister.

105. *Nurse Morrison's Maternity Home* in Suva meets a very great want for maternity cases attended by private practitioners. There were 64 admissions during the year of the following racial group:—

Europeans	48
Part-Europeans	8
Chinese	5
Indians	3
	64

VII—LABORATORIES AND RESEARCH.

106. Dr. G. T, Barnes continued to perform the duties of Pathologist and Mr. J, E. Pery-Johnston those of Laboratory Superintendent. An Assistant Medical Practitioner was attached to the laboratory during the year, in addition to the clerical staff. The laboratory is a modern unit equipped to undertake all normal requirements of clinical pathology, parasitology, bacteriology biochemistry, forensic medicine and public health. T.A.B. and antigenous vaccines are prepared as required.

107. A medical and health departmental research committee was appointed during the year with the Pathologist as Chairman. The Pathologist's report " Preliminary Studies in Nutritional Deficiency " was published in the June number of the *Journal of Tropical Medicine and Hygiene*. A report entitled " An Investigation into the Causes of Severe Anæmia in Fiji " was completed but has not yet been published. Investigations were made into such subjects as the use of " Hetrazan " in the treatment of Filariasis, the persistence of H and O agglutinins after T.A.B inoculations and unusual causes of fatal cerebral vascular disease.

108. Specimens were received by the laboratory from all parts of Fiji and from other territories participating in the South Pacific Health Service. Table VI gives a brief analysis of the 26,291 laboratory procedures carried out.

TABLE VI—LABORATORY PROCEDURES.

Post-mortem Examinations	33
Histology Preparations	265
Clinical Pathology	4,921
Parasitology	15,349
Bacteriology	4,846
Biochemistry	439
Animal Inoculations	...
Rat autopsies for plague..	128
Medicolegal	18
Agricultural	212
Not otherwise classified	80
Total	26,291

109. The Lautoka Laboratory remained under the charge of Assistant Medical Practitioner Peni Tuidraki, who has had several years experience in the Suva laboratory. In September a fire occurred in the Health Office at Lautoka, the building in which the laboratory is situated, causing considerable damage to equipment, etc. Very little work was done for some time after the fire and activities were handicapped up to the end of the year through lack of proper accommodation and equipment. 2,476 specimens were handled at Lautoka during the year.

VIII—TRAINING.

A.—GENERAL.

110. Some progess was made during the year in the establishment of training facilities for local staff, although accommodation remained a pressing difficulty and the lack of a central institution where dental, health, laboratory and pharmacy students could be accommodated and instructed in subjects common to all. Approval has now been granted for the construction of the first stage of the medical centre in Suva, which provides for a new central medical school and hostel and a new school and hostel for assistant nurses, extensions to the Obstetric Annexe and a new Out-patients' Department at the Colonial War Memorial Hospital. Expenditure is to be met from a grant under the Colonial Development and Welfare Act. When completed an important advance will have been made in providing adequate teaching facilities for local personnel.

B.—CENTRAL MEDICAL SCHOOL.

111. Extracts from the annual report by Dr. A. S. Frater, M.B.E., who assumed duty as Principal of the School on the 1st January, 1947, are attached to this report as Appendix VIII. The high standard of education and conduct at the School has been well maintained. The following is a summary of the students from the various administrations attending the School during the year:—

Western Samoa	8
Tonga	3
Cook Islands	3
Niue	2
Gilbert and Ellice Islands Colony	5
British Solomon Islands Protectorate	2
New Hebrides	1
*Papua, New Guinea	6
Fiji	18
Total	48

*See Paragraph 1 of Appendix VIII.

C.—ASSISTANT DENTAL PRACTITIONERS.

112. It is hoped to arrange for a regular three year course in dentistry, but it has not been possible to make very much progress owing to lack of facilities. Students take the pre-medical course in preliminary sciences and elementary anatomy and physiology with the students at the Central Medical School prior to the dental course proper, which is conducted by the dental surgeon. There have been three students in training and the first assistant dental practitioner to qualify in Fiji passed his final examination at the end of 1946.

D.—NURSES' TRAINING SCHOOLS.

113. The Central Nursing School, which is attached to the Colonial War Memorial Hospital, is the largest training institution for nurses in the Colony. Nurses obtain their general and obstetric training at this school and specialized tuberculosis training at the Tamavua Hospital. Miss A. Storck performed the duties of Principal during the year.

114. As mentioned above, approval has been granted to the erection of a new hostel as part of stage I of the medical centre proposals, and will relieve the existing congestion in dormitories, refectories and lecture rooms. The quarters occupied by the Principal of the school and the Tutor Sister were considerably improved during the year.

115. There are 76 pupil nurses and 15 qualified nurses accommodated at the nurses' hostel. Thirty-four pupil nurses were accepted for training in 1947 and 22 nurses graduated from the school.

116. Forty-seven nurses and pupil nurses are accommodated at the nurses hostel attached to the Lautoka Hospital, 12 of whom were housed in a vacant ward until such time as extensions to the existing hostel can be completed. Eighteen pupil nurses were accepted for training during 1947 (12 Indian and 6 Fijian); 3 nurses graduated from the school.

117. The nursing school at Tamavua Hospital is not yet functioning to full capacity, but it is hoped that a tutor sister will be appointed in the near future. The School is, however, used for two-monthly periods twice yearly for nurses entering the central nursing school and for regular lectures for the male nursing orderlies.

118. The Methodist Mission Hospital at Ba is also recognized as a training unit for nurses and is able to take, on an average, 6 pupil nurses.

119. In all training schools, tuition extends over a period of three years, in accordance with a syllabus approved by, and to a standard recommended by, the South Pacific Board of Health. For many reasons no attempt has been made to train nurses to a standard which would be acceptable as qualifying for registration in the United Kingdom or the neighbouring Dominions. Every encouragement is given to local girls who go overseas to take the full nurses qualifications.

E.—MEDICAL ORDERLIES (MALE).

120. A scheme for the training of youths in nursing and the elements of medicine, with a view to their becoming qualified as medical assistants, has been worked out and it is hoped to make a start on a regular syllabus of training at the Tamavua Hospital in 1948. Desultory training has, in the past, been carried out in district hospitals and a certain number of orderlies have been absorbed from the military hospital into the Tamavua Hospital staff. Experience has shown that there is a definite opening for trained male medical assistants.

F.—ASSISTANT HEALTH INSPECTORS.

121. Two pupil Assistant Health Inspectors were in their second year of training by the end of 1947. When suitable training quarters and instructional staff can be made available it is proposed to introduce a more systematic and organized course of study than has been possible in the past.

G.—ASSISTANT LABORATORY TECHNICIANS.

122. The course for laboratory training which was inaugurated by the Pathologist at the beginning of 1946, continued during 1947 with instructions in physics, inorganic chemistry and mathematics, in addition to practical instruction at the laboratory benches. There were 2 Fijian and 2 Indian trainees at the end of the year.

H.—ASSISTANT PHARMACISTS.

123. The training of local youths as Assistant Pharmacists continued under the supervision of the Government Pharmacist. A systematic course of lectures is given and practical work is provided in the central pharmacy and the dispensary of the Colonial War Memorial Hospital. Two students who had been training since 1946 failed to secure a pass in their final examinations, but will be given an opportunity to sit for the examinations again early in 1948. No new students were accepted for training in 1947.

IX—METEOROLOGY.

124. A representative extract from the Meteorology Reports of the Colony is quoted in Appendix XI.

APPENDIX I.

ESTABLISHMENT—1947.

Director of Medical Services	1
Deputy Director of Medical Services	1
Secretary	1
Surgeon Specialist	1
Medical Officer of Health, Suva	1
Principal, Central Medical School	1
Principal, Central Nursing School and Tutor Sisters	3
Pathologist	1
Medical Superintendent, Central Leper Hospital	1
Medical Officers	19
Medical Officers, Supernumerary	2
Assistant Medical Practitioners	82
Dental Surgeon	1
Storekeeper and Pharmacist	1
Assistant Pharmacist	1
Laboratory Superintendent	1
Health Inspectors and Health Assistants	32
Trained Nursing Staff—General and District Hospitals	67
Native Nurses (Certificated)	168
Radiographers and Assistants	5
Dietitians	2
Attendants, Mental Hospital	17
Clerical Staff	29
Nursing Staff, Central Leper Hospital	26
Orderlies, Tuberculosis Hospital	52
Subordinate Staff	306
	822

APPENDIX II.

HOSPITALS AND DISPENSARIES—BEDS, ADMISSIONS AND ATTENDANCES, 1947.

IN-PATIENTS—RACIAL DISTRIBUTION.

Hospital.	Beds.	Occupied beds, daily average.	Admissions, 1947.	Race.	C.W.M.H	Lautoka.	Levuka.	Labasa.	Tamavua.	Total.
General Hospital, C.W.M.H., Suva	274	202·79	4,388	Europeans and P.M.E.N.D.*	484	185	13	72	12	766
Tamavua Tuberculosis Hospital, Suva	162	153·00	269	Fijians ..	1,374	483	561	257	185	2,860
Three District Hospitals ..	182	146·46	5,133	Indians ..	2,075	1,859	46	1,306	58	5,344
			9,790							
Thirteen Rural Hospitals ..	282	225·0	6,566	Chinese and Others.	455	193	100	58	14	820
Total ..	900	727·25	16,356	Total ..	4,388	2,720	720	1,693	269	9,790

* Persons of Mixed European and Native Descent.

OUT-PATIENTS.

Race.	Hospitals.				Dispensaries.	
	C.W.M.H.	Three District Hospitals.	Tamavua.	Thirteen Rural Hospitals.	Thirty-five Rural Dispensaries.	Totals 1947.
Europeans and P.M.E.N.D.	1,023	1,324	234	793	5,108	8,482
Fijians	23,716	8,089	1,313	47,600	84,149	164,867
Indians	12,131	18,037	1,446	35,134	22,325	89,073
Chinese and Others	2,683	3,080	118	2,614	333	8,828
Total	39,553	30,530	3,111	86,141	111,915	271,250

APPENDIX III.

TABLE A—NOTIFICATION OF INFECTIOUS DISEASES BY DISTRICTS FOR THE YEAR 1947.

Name of Disease.	Suva.				Southern.					Western.										Eastern.		Northern.		Cakaudrove.			Rotuma.	Total.
	Suva Urban.	Suva Rural.	Aircraft.	Ships.	Tailevu.	Rewa.	Naitasiri.	Serua.	Kadavu.	Nadroga.	Nadi.	Lautoka.	Ba.	Tavua.	Nadarivatu.	Ra.	Aircraft.	Ships.	Nadi Aerodrome.	Lomaiviti.	Lau.	Macuata.	Bua.	Taveuni.	Savu Savu.	Rabi.	Rotuma.	
Chicken Pox (Vericella)	19	2	..	..	18	..	2	1	19	5	..	1	4	11	2	8	..	..	..	44	6	5	1	1	6	..	..	155
Amœbic Dysentery	1	3	..	..	1	..	..	..	..	..	2	..	..	..	..	2	..	..	..	6	..	35	..	..	..	..	..	50
Bacillary Dysentery	5	..	..	..	4	..	..	..	..	15	44	10	2	9	..	18	..	..	..	7	3	131	..	..	2	..	..	250
Unclassified Dysentery	..	9	..	..	12	1	2	1	..	6	5	15	34	8	..	2	..	..	..	4	..	43	3	1	5	..	..	151
Influenza	62	1	..	..	33	22	28	39	10	223	70	107	331	362	1	193	..	..	..	18	54	120	24	29	152	..	..	1,879
Measles (Morbilli)	8	..	..	..	10	..	..	..	..	16	..	1	..	2	..	3	..	..	..	..	2	..	..	..	..	..	..	42
Mumps	173	185	..	..	77	5	2	..	..	2	19	..	15	35	..	21	..	..	..	62	1	..	..	..	..	..	248	845
Typhoid Fever	3	6	..	..	12	6	8	1	..	1	6	1	2	..	3	1	..	..	..	9	1	3	1	1	..	..	..	65
Whooping Cough (Pertussis)	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Dengue Fever	12	4	..	..	19	3	14	..	..	11	58	22	17	20	4	95	..	..	..	34	..	3	..	1	1	..	..	318
Diphtheria	..	2	..	..	..	..	..	..	..	..	1	..	3	1	..	..	..	..	..	..	..	....	..	..	..	..	..	7
Infantile Diarrhœa	10	25	..	..	108	29	68	..	..	22	52	93	94	12	3	83	..	..	..	30	37	34	13	28	24	15	..	780
Infective Hepatitis	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1								4
Leprosy.	1	8	..	..	2	..	1	..	2	1	3	2	2	3	..	6	..	..	..	2	1	18	1	1	1	..	..	55
Malaria	1	..	..	..	1	1	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	5	..	..	..	..	..	11
Puerperal Fever	2	..	..	..	2	..	..	1	..	4	..	6	12	2	1	6	..	..	..	3	..	1	..	2	..	..	..	42
Tetanus.	1	1	..	..	4	..	1	..	..	2	..	1	3	2	..	1	..	..	..	2	1	2	..	2	1	..	..	24
Trachoma	1	2	..	..	4	..	9	6	3	4	..	..	3	..	1	8	..	..	..	8	5	8	..	124	13	..	..	199
Tuberculosis Pulmonary	38	41	..	..	65	15	35	9	13	26	20	23	13	7	7	18	..	..	..	17	4	41	3	12	4	2	2	415
Tuberculosis other forms	1	2	..	..	10	..	6	5	2	3	3	..	2	4	3	1	..	..	..	15	..	6	1	5	1	1	..	71
Gonorrhœa	54	76	..	..	22	6	1	2	..	10	16	26	22	6	1	15	..	..	..	13	..	20	..	2	2	..	..	294
Opthalmia neonatorum	..	1	..	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	3	..	..	..	..	..	..	..	7
Syphilis	56	45	..	..	9	2	2	1	..	1	2	..	2	..	..	5	..	..	..	..	..	2	..	..	..	..	..	127
Total	449	414	..	..	416	91	179	66	49	353	301	309	563	484	26	486	..	..	..	279	115	477	47	209	212	18	250	5,793

TABLE B.

NOTIFICATION OF INFECTIOUS DISEASES BY RACE FOR THE YEAR 1947.

Diseases.	Europeans.	Part-Europeans.	Fijians.	Indians.	Others.	Total.
Chicken Pox	25	22	95	10	3	155
Amœbic Dysentery	5	2	27	15	1	50
Bacillary Dysentery	15	10	63	161	1	250
Unclassified Dysentery	5	1	44	96	5	151
Influenza	33	55	1,058	679	54	1,879
Measles	9	1	22	9	1	42
Mumps	12	52	174	317	290	845
Typhoid Fever	1	1	32	29	2	65
Whooping Cough	....	....	1	1	....	2
Dengue Fever	47	5	148	115	3	318
Diptheria	....	....	1	5	1	7
Infantile Diarrhœa	34	32	438	256	20	780
Infective Hepatitis	....	....	3	1	....	4
Leprosy	....	....	18	33	4	55
Malaria	....	....	11	....	....	11
Puerperal Fever	1	1	11	28	1	42
Tetanus	....	....	17	7	....	24
Trachoma	....	3	185	10	1	199
Tuberculosis Pulmonary	7	10	271	107	20	415
Tuberculosis other forms	1	1	57	9	3	71
Gonorrhœa	26	20	84	144	20	294
Opthalmia Neonatorum	....	....	4	2	1	7
Syphilis	7	2	....	111	7	127
	228	218	2,764	2,145	438	5,793

TABLE C.

NOTIFICATION OF INFECTIOUS DISEASES BY MONTHS FOR THE YEAR 1947.

Diseases.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Chicken Pox	3	3	5	6	5	1	11	64	4	17	27	9	155
Amœbic Dysentery	2	3	9	6	12	5	4	5	..	2	2	..	50
Bacillary Dysentery	23	32	45	29	25	39	17	17	10	4	3	6	250
Unclassified Dysentery	10	15	5	16	4	11	21	16	16	16	10	11	151
Influenza	157	178	250	215	84	214	135	194	107	152	104	89	1,879
Measles	3	26	1	1	2	3	3	1	2	..	..	..	42
Mumps	1	5	1	2	7	2	39	37	145	239	242	125	845
Typhoid Fever	5	9	4	2	1	9	10	9	8	5	1	2	65
Whooping Cough	..	..	..	..	..	1	1	..	..	..	..	..	2
Dengue Fever	8	13	108	30	16	13	22	15	28	23	12	30	318
Diptheria	..	..	1	1	2	..	1	..	..	..	1	1	7
Infantile Diarrhœa	23	28	23	45	40	113	235	93	77	46	33	24	780
Infective Hepatitis	..	..	..	1	1	..	2	..	..	..	..	..	4
Leprosy	4	4	9	15	2	2	6	..	3	3	3	4	55
Malaria	..	1	..	2	1	2	..	2	..	1	1	1	11
Puerperal Fever	..	3	2	2	1	1	5	6	5	6	4	7	42
Tetanus	3	1	2	3	1	1	1	1	2	3	2	4	24
Trachoma	3	11	24	45	5	4	89	10	2	2	1	3	199
Tuberculosis Pulmonary	44	45	30	48	28	40	43	31	27	12	21	46	415
Tuberculosis other forms	1	10	13	9	7	10	7	3	3	..	6	2	71
Gonorrhœa	8	18	22	17	19	22	54	27	43	25	19	20	294
Opthalmia neonatorum	..	..	1	..	..	..	1	..	1	3	1	..	7
Syphilis	1	10	12	12	10	8	14	26	10	11	5	8	127
Totals	299	415	567	507	273	501	721	557	493	570	498	392	5,793

APPENDIX IV.

VITAL STATISTICS.

The estimated population at the end of 1946 and 1947 was:—

Race.	Males. 1947.	Females 1947.	Total 1947.	Total 1946.	Increase.	Increase per cent.	Decrease.	Decrease per cent.
Europeans	3,015	2,361	5,376	4,529	847	18·70	....	....
Euronesians	3,293	3,048	6,341	6,140	201	3·27	....	....
Fijians	61,497	59,752	121,249	118,446	2,803	2·37	....	....
Rotumans	1,741	1,662	3,403	3,315	88	2·65	....	....
East Indians	67,680	57,994	125,674	120,986	4,688	3·87	....	....
Polynesians	2,239	1,584	3,823	3,677	146	3·97	....	....
Chinese	2,080	811	2,891	2,861	30	1·05	....	....
Others	276	241	517	514	3	·58	....	....
Total ..	141,821	127,453	269,274	260,468	8,806	3·38	....	....

The number of births recorded during the last four years was:—

Race.	1944.	1945.	1946.	1947.	Crude birth-rate per 1,000, 1947.
Europeans	84	102	89	79	14·69
Euronesians	215	224	236	242	38·16
Fijians	3,808	4,317	4,644	4,621	38·11
Rotumans	123	139	161	164	48·19
East Indians	4,699	5,045	5,181	5,248	41·76
Polynesians	79	56	110	118	30·87
Chinese	78	102	90	99	34·24
Others	3	3	....	4	7·74
Total ..	9,089	9,988	10,511	10,575	39·27

The crude birth rate in 1946 was 40·35.

The number of deaths recorded during the last four years was:—

Race.	1944.	1945.	1946.	1947.	Crude death-rate per 1,000, 1947.
Europeans	22	21	33	32	5·95
Euronesians	37	43	52	41	6·47
Fijians	1,929	1,772	2,016	1,828	15·08
Rotumans	80	70	50	76	22·33
East Indians	1,029	879	1,095	856	6·81
Polynesians	41	41	97	61	15·96
Chinese	15	12	19	11	3·80
Others	1	2	....	1	1·93
Total ..	3,154	2,840	3,362	2,906	10·79

The crude death rate in 1946 was 12·91.

The marriages, births, deaths and natural increase for 1947 were:—

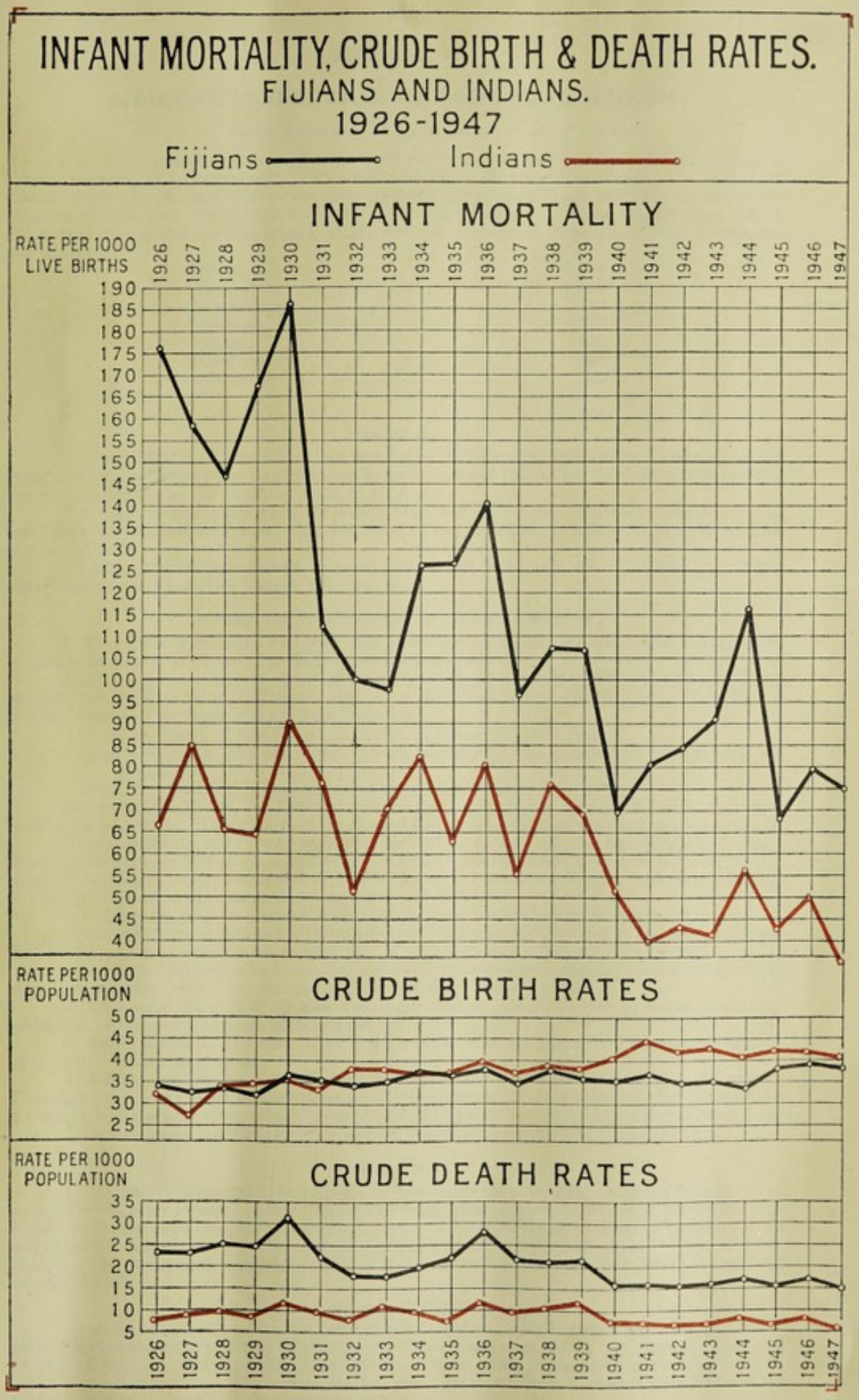
Race.	Marriages.	Births.	Deaths.	Increase.	Increase per 1,000.
Europeans	46	79	32	47	10·38
Euronesians	54	242	41	201	32·74
Fijians	1,068	4,621	1,828	2,793	23·58
Rotumans	42	164	76	88	26·55
East Indians	876	5,248	856	4,392	36.31
Polynesians	35	118	61	57	15·50
Chinese	5	99	11	88	30·76
Others	....	4	1	3	5·84
Total ..	2,126	10,575	2,906	7,669	29·44

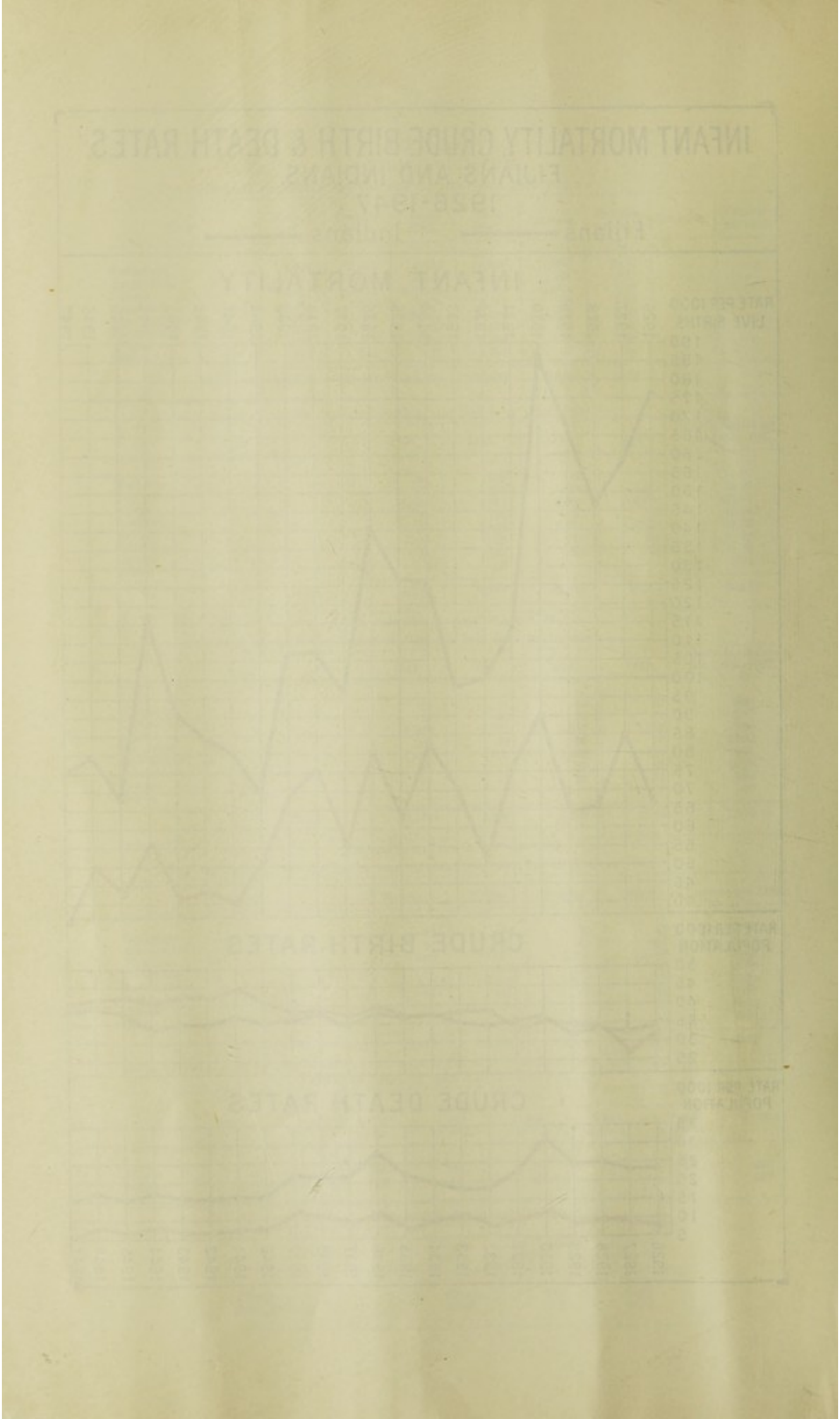
Table of Infant and Child Deaths, 1947.

Race.	Years					Total.
	Under 1 year.	1 and under 2.	2 and under 3.	3 and under 4.	4 and under 5.	
Fijians	346	167	52	31	23	619
Indians	192	31	12	5	7	247

Infantile Mortality.

Race.	No. of births.	No of deaths under 1 year.	Rate per 1,000 births.
Fijians	4,621	346	74·88
East Indians	5,248	192	36·59


INFANT MORTALITY, CRUDE BIRTH & DEATH RATES.
FIJIANS AND INDIANS.
1926-1947
Fijians
Indians
INFANT MORTALITY
RATE PER 1000 LIVE BIRTHS
CRUDE BIRTH RATES
RATE PER 1000 POPULATION
CRUDE DEATH RATES
RATE PER 1000 POPULATION



APPENDIX V.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

By Dr. F. Adam Thomson, M.R.C.S. (Eng.), L.R.C.P. (Lond.).

I have the honour to forward herewith my report on the health of 7,281 school children in the Government and Government aided schools of Fiji. All the Suva schools were visited, 27 schools in all. In Nausori and in the more outlying districts of Rewa and Tailevu, and in the Lautoka district, only certain schools were visited—11 schools. In all 38 schools were visited. For details of race and sex distribution at the different schools see Table A. Racial distribution was as follows:—

Indian	3,214
Fijian	2,530
Part-European	710
European	340
Chinese	142
Mixed races	245
Melanesian	100
	7,281

General.

The examination of school children was begun in February without the assistance of any staff, and I should like to put on record my appreciation and thanks for the willing help given at the various schools by the teaching staffs of all races.

The child welfare nurse gave occasional help, and with some assistance from the Indian and Fijian child welfare staff, every child was weighed and measured, and examined for the presence of nits and lice.

On 18th July the school welfare nurse commenced work and one Fijian and one Indian nurse were allotted to school work in the Suva area.

Scheme for Examination of School Children.

1. Every school is visited and each child given a careful clinical examination. The results of this examination are entered on individual medical cards.

The clinical notes include observations on all systems, signs of nutritional ill-health being specially noted (state of mouth, teeth, skin, eyes, conjunctivæ and muscle tone). Eye sight is tested. Charts of all these findings have been made—

Chart B—Signs of nutritional ill-health in racial and sex groups.

Chart C—Dental and nutritional defects in different age groups and in racial and sex groups.

Chart D—Analysis of diseases in racial and sex groups.

Hæmoglobin tests by the Tallqvist method were done in the case of 267 children chosen from all racial groups. This confirmed the clinical finding that children were not as a rule anæmic.

2. Arrangements were made with the hospital laboratory for the examination of stools. School staffs were again most co-operative about this. Children found to be infected were treated either at the Health Office or at school or, in the case of endomœba histolytica infections, admitted to hospital. Records were made of infestations—see Table E.

3. Children in need of hospital or dental attention were referred for treatment.

It was gratifying to note as the months went by that a large proportion of children so referred did in fact present themselves for treatment. Much, of course, still remains to be done.

4. Children who gave a history of having relatives with serious disease, such as tuberculosis, leprosy or syphilis, were carefully checked up and their homes visited.

5. Systematic house visiting also was begun and an attempt made to assist parents by giving advice on diet and child management.

6. School teachers, who were at all times most helpful and interested, were given talks on diet, general health and so on.

Pamphlets suitable for both teachers and parents are now in the hands of the printer. These give simple advice on suitable diets for the growing child. It is intended that these will be given to school teachers when schools are visited and to parents when home visiting is being done.

7. Anti-typhoid inoculations were carried out at all schools—4,657 children in all.

Records.

For simplicity of recording new school medical cards were designed and have been prepared by the Government Printer. These cards have been made uniform in size with school progress cards. With the kind co-operation of the Director of Education both school and medical cards will be sent to schools by the Education Department, together with instructions for the filling in of both. This will ensure a greater degree of accuracy, and at the same time lessen the work of the school staff.

School Buildings.

As well as the routine clinical examination of children, schools visited were always investigated for the state of repair and suitability of buildings and class rooms, the state of repair and number of latrines, washing facilities and drinking water, and, in the case of boarding schools, sleeping accommodation. Where these were found to be unsatisfactory reports were made to the Medical Officer of Health or the authority concerned.

Details of Health Findings.

General.—Only 39 per cent of all children examined were in apparent good health.

Fijians	36·0	per cent in good health.
Indians	45·0	,,
Part-European	33·0	,,
European	20·3	,,

Incidence of Disease.—Serious disease was not common, though one child attending school was found to have pneumonia, one leprosy, one a complete hare lip and cleft palate untreated at the age of 16 years—(this has since been operated on at the Colonial War Memorial Hospital)—and several cases of dengue and of mumps.

An analysis of all the findings is given in Table D. Below is a synopsis of these findings—

	Fijians.		Indians.		Part-European.		European.	
		per cent.		per cent.		per cent.		per cent.
Number	2,515	....	3,214	....	697	....	336	....
Nits	552	21·9	793	24·6	162	23	8	2·4
Skin Conditions	236	9·3	148	4·6	59	8·5	11	3·3
Defects of Vision	14	....	31	....	12	....	9	....
Eye Diseases	17	....	26	....	2	....	....	....
Ear Diseases	8	....	13	....	4	....	2	....
Lung Diseases	4	....	14	....	4	....	7	....
Heart	3	....	2	....	4	....	5	....
Deformities	35	....	19	....	19	....	16	....
T.B. Glands	4	....	....	....	....	....	....	....
Anæmia	1	....	18	....	2	....	....	....
Congenital Syphilis ..	....	....	4	....	4	....	1	....
Yaws	32	....	....	....	....	....	....	....
Others	18	....	40	....	12	....	11	....
Total excluding Nits ..	372	14·8	315	9·8	122	17·5	62	18·4

Incidence of Nutritional Ill Health including Defective Teeth.—(Tables B and C).

Nutritional ill health was often found. *Among all Fijian children* examined—63·7 per cent of them showed some defects. The range was from at the best, 59·7 per cent at Suva schools to, at the worst, 93·9 per cent at some Lautoka district schools.

In the 5—8 age groups a higher proportion still were defective. The range here being from 82·4 per cent, to the highest figure 97 per cent at some Lautoka district schools.

Of the others, there seems little difference between children in the Suva area itself and the rather more distant villages. Villages remote from towns, in the sense that store goods were not available, were not visited. If store goods can be obtained they are always used in preference to the fruits and vegetables of the peoples own labours.

In every group of cases it was found that the percentage of defects was higher in the 5—8 age groups. This is to be expected, as from the weaning period to about five years of age the child is struggling to nourish itself on a diet of sweetened tea without milk, bakers' bread, with an occasional piece of cassava to chew. As it grows bigger it is able to pick up this and that as an extra to its diet. It may possibly have some coconut, banana, mango or guava—even a little meat occasionally—things that the smaller child cannot take and is not given.

Among all Indian children 54 per cent were found to have these defects. These were all in Suva schools or in the Suva district. Again in the 5—8 age groups a higher proportion showed defects—75·8 per cent of all examined. Here, as in the case of the Fijians, until the child is able to take an ordinary adult mixed diet it is seriously undernourished.

The following signs were taken as an indication that nutritional ill health was present:—

1. Poor muscle tone and faulty posture.
2. Dental defects.
3. Mouth changes—(*a*) Oral sepsis,
   (*b*) Eroded tongue,
   (*c*) Cheilosis.
4. Skin changes— (*a*) Dry skin,
   (*b*) Phrynoderma,
   (*c*) Crazy pavement and mozaic.

Details of these signs are given in the notes below to accompany Table B.

Height and Weight.—For detail see accompanying Table F.

Although children were weighed and measured so that some estimate could be made of their general condition, results of this only confirm that height and weight alone are very little guide as to the state of nutrition. This is particularly so here in Fiji where there are so many racial types.

The A.C.H. index has not been used. It was found to be of no definite value in India and Ceylon, and conditions in Fiji were thought to be in some respects similar.

Anæmia.—This was not found to be frequent or severe. Among 265 children, only four were found by the Tallqvist method to have a hæmoglobin level as low as 70 per cent. None were below this figure. Pallor of the mucous membranes, suggesting some degree of anæmia, was found in less than one per cent of all the children examined.

Epidemic Diseases.—There were a number of cases of mumps, chicken pox and dengue during the year.

Tuberculosis.—Sixty-four contacts were investigated and their chests were X-rayed. Five of these gave suspicious results and one proved to be a definite positive.

Syphilis.—A number of cases of congenital syphilis were found at the schools. (See Table D). Some were untreated, some partially treated. Arrangements were made for completion of or commencement of treatment.

Leprosy.—One child was found to be suffering from leprosy and was transferred to Makogai.

Helminth and Protozoa Infections.—Four hundred and ninety-eight children were found to be infected—this was 42 per cent of the total number examined for infections:

Fijians	52	per cent
Indians	39·8	,,
Part-Europeans	46·5	,,
Europeans	20·6	,,

For detail see Table E.

Two hundred and nineteen infected children received treatment. Pamphlets for distribution to parents and schools were prepared.

PERCENTAGE DISTRIBUTION OF MAIN INFESTATIONS.

Infection.	All Races.	Fijian.	Indian.	P. European.	European.
Hookworm	27·3	33·8	24·1	34	10·8
Ascaris	9·0	4·3	11·8	7·6	...
Giardia E.	2·8	3·8	2·5	4·2	1·0
Histolytica	2·5	8·2	0·7	2·8	4·0
Others	11·0	17·8	9·5	13·9	4·0

CONCLUSION.

It will be seen from this report that although only 39 per cent of all the school children examined were found to be in good health, serious disease was not common.

Such nutritional defects as were found were not of severe degree, and the small amount of work already done to correct these defects seems to point that correction is not a matter of great difficulty. It is satisfactory to note some improvement in the children with even one years supervision and it is hoped there will be further improvement next year.

NOTE.

I should like to add the following notes already made in an earlier report and which it is felt might assist in the improvement of the general health.

Diet.—Following inquiries and observations made at the schools there is no doubt that the children's lunch could be easily improved. Money is wasted on unsuitable ice blocks and buns. With guidance it has been found that more suitable food will be purchased. It is hoped that the diet pamphlets will help here, and the teaching staffs are most anxious to help. Home visiting and advice will do much to assist parents in the choice of a suitable lunch to take to school. School gardens can be further planted with citrus, pawpaw, etc., and the fruits picked and eaten by the children at school.

Fatigue.—Children, in many cases, arrive at school tired and before the morning session is completed are in a state of considerable exhaustion, many of them yawning and ready for sleep. This seems to be due to a variety of home factors—bad feeding, shortage of sleep, lack of fresh air during the night, and overcrowding. Sometimes work has to be done in the morning, before the child leaves home for school, and this is sometimes followed by a long walk to school.

Were it possible to give the children a few minutes rest on arrival at school, say after roll call time, this to be followed by an inspection for cleanliness, including particularly heads and noses, much good would be done. After the preliminary inspection, ten to fifteen minutes simple breathing and postural exercises would be most beneficial, especially for the younger children. Postural exercises under careful individual supervision, rather than violently energetic drill, is much more likely to give results—indeed few of the children are in a physical state to benefit at all by violent drill. These simple exercises could be done in the class rooms and so wet days need not put a stop to the daily correction of faulty postures.

During the lunch hour, after the lunch has been eaten, the smaller children, say up to nine or ten years of age, would greatly benefit by supervised rest. This is indeed carried out at one school, children lying on the floor and actually sleeping for twenty minutes or so. They awake vastly refreshed and ready for afternoon school.

Again I should like to record my thanks to the staffs of all the schools visited during the year for their help, interest and co-operation at all times.

F. ADAM THOMSON,
School Medical Officer, Suva.

TABLE A 1—SCHOOLS, 1947—SEX AND RACIAL DISTRIBUTION.

SUVA AND DISTRICT.

School.			Indian.		Fijian.		Part-European.		European.		Chinese.		Mixed.		Melanesian.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Annesley	..	246	..	..	..	246	..	..	..	..	..	..	..	..	..	..
Dudley	..	309	..	309	..	..	..	..	..	..	..	..	..	..	..	..
Toorak	541	..	257	..	284	..	..	..	..	..	..	..	..	..	..	..
Wesley	54	37	..	..	..	..	54	37	..	..	..	..	..	..	..	..
St. Columba	536	..	414	..	98	..	..	..	..	..	12	..	12	..	..	..
St. Felix	181	..	..	..	..	..	181	..	..	..	..	..	..	..	..	..
Marist	165	..	116	..	9	..	21	..	2	..	14	..	3	..	..	..
St. Joseph	..	101	..	..	..	..	..	80	..	21	..	..	..	..	..	..
St. Annes	..	343	..	131	..	134	..	4	..	..	..	16	..	58	..	..
St. Philomena	..	109	..	8	..	4	..	83	..	..	..	..	..	14	..	..
Vatuwaqa	109	219	109	219	..	..	..	..	..	..	..	..	..	..	..	..
Samabula, Government	416	..	416	..	..	..	..	..	..	..	..	..	..	..	..	..
Ballantyne	..	212	..	..	..	212	..	..	..	..	..	..	..	..	..	..
Suvavou	38	34	..	..	38	34	..	..	..	..	..	..	..	..	..	..
Chinese	88	53	..	..	..	..	..	..	..	..	57	40	31	13	..	..
Arya Samaj	..	342	..	342	..	..	..	..	..	..	..	..	..	..	..	..
Rishikul	217	80	217	80	..	..	..	..	..	..	..	..	..	..	..	..
Samabula, S.D.A.	194	61	191	60	3	1	..	..	..	..	..	..	..	..	..	..
Colo-i-Suva	71	34	71	34	..	..	..	..	..	..	..	..	..	..	..	..
Tamavua	14	11	..	..	14	11	..	..	..	..	..	..	..	..	..	..
Draiba	37	11	..	..	25	5	..	..	..	..	..	..	12	6	..	..
Grammar, Junior	190	214	..	..	..	..	67	117	123	97	..	..	..	..	..	..
Grammar, Senior	97	55	..	..	..	..	38	19	59	36	..	..	..	..	..	..
Sawani, Provincial	144	..	..	..	144	..	..	..	..	..	..	..	..	..	..	..
Sawani, Village	29	31	..	..	29	31	..	..	..	..	..	..	..	..	..	..
Wailoku	64	53	..	..	5	2	1	..	..	..	..	..	30	23	28	28
Islamic	10	74	10	74	..	..	..	..	..	..	..	..	..	..	..	..
Totals	3,195	2,629	1,801	1,257	649	680	362	340	184	154	83	56	88	114	28	28

TABLE A 2.

NAUSORI, REWA, TAILEVU.

School.			Indian.		Fijian		Part-European.		European.		Chinese.		Mixed.		Gilbertese and Banaban.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Nausori	60	56	..	..	60	56	..	..	..	..	..	..	..	..	..	..
Lelean	289	33	10	..	259	33	..	..	..	..	..	..	..	..	..	..
Toga	29	24	..	..	29	24	..	..	..	..	..	..	..	..	..	..
Kuiva	23	33	..	..	23	33	..	..	..	..	..	..	..	..	..	..
Fulton	232	114	116	30	116	73	2	6	1	1	3	..	14	4	..	..
Namalata	42	45	..	..	42	45	..	..	..	..	..	..	..	..	..	..
Lodoni	297	..	..	..	228	..	..	..	..	..	..	..	..	..	49*	..
															20†	..
Totals	972	305	126	30	757	264	2	6	1	1	3	..	14	4	69	..

* Gilbertese. † Banaban.

LAUTOKA.

Vitogo	33	35	..	..	33	35	..	..	..	..	..	..	..	..	..	..
Viseisei	19	26	..	..	19	26	..	..	..	..	..	..	..	..	..	..
Tavabubu	13	15	..	..	13	15	..	..	..	..	..	..	..	..	..	..
Sabeto	14	25	..	..	14	25	..	..	..	..	..	..	..	..	..	..
Totals	79	101	..	..	79	101	..	..	..	..	..	..	..	..	..	..

TOTAL NUMBER OF CHILDREN.

Totals	4,246	3,035	1,927	1,287	1,485	1,045	364	346	185	155	86	56	199	146	..	..
	7,281		3,214		2,530		710		340		142		345*		..	..

* Mixed include Gilbertese, Banaban and Melanesian.

See notes for key to defects.

TABLE B 1A—SIGNS OF NUTRITIONAL ILL HEALTH—FIJIAN.

SUVA DAY SCHOOLS—AGES 5–18.

School.	No. of Children.		Poor Muscle Tone and Faulty Posture.		Teeth Defects.		Mouth Defects.						Skin.					
							Oral Sepsis.		Sore Tongue.		Cheilosis.		Dry Skin.		Phryno-derma.		Mozaic.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Toorak	284	..	16	..	78	..	113	..	..	..	..	..	13	..	1	..	..	..
St. Columba	98	..	6	..	40	..	21	..	3	..	..	..	12	..	1	..	1	..
Marist	9	..	..	..	3	..	1	..	..	..	..	..	2	..	..	..	..	..
Annesley	..	246	..	16	..	135	..	89	..	..	..	..	..	82	..	52	..	..
St. Annes	..	134	..	15	..	77	..	39	..	..	..	..	..	17	..	4	..	..
Suvavou	38	34	4	1	22	19	25	18	..	..	..	..	10	9	..	..	..	..
Tamavua	14	11	3	3	6	7	3	4	..	..	..	..	5	1	..	..	..	..
Dralba	25	5	17	6	21	3	18	9	..	..	..	..	11	4	3	1	..	..
Sawani	29	31	10	5	10	8	25	20	..	..	1	..	5	11	..	..	..	..
Totals	497	461	56	46	180	249	206	179	3	..	1	..	58	124	5	57	1	..

BOARDING SCHOOLS—AGES 10–18.

Ballantyne	..	212	..	3	..	72	..	13	..	..	..	..	..	46	..	2	..	1
Lodoni	228	..	10	..	58	..	39	..	..	..	6	..	88	..	..	..	1	..
Sawani	144	..	6	..	43	..	36	..	..	..	..	..	23	..	..	..	..	..
Lelean	259	33	66	3	106	13	131	12	1	..	4	..	154	10	20	..	1	..
Fulton	116	73	30	3	40	20	21	6	..	..	..	1	28	12	..	..	..	..
Totals	747	318	112	9	247	105	227	31	1	..	10	1	293	68	20	2	2	1

TABLE B. 1B—SIGNS OF NUTRITIONAL ILL HEALTH—FIJIAN (*Continued*).

VILLAGE SCHOOLS—AGES 5–14.

School.	No. of Children.		Poor Muscle Tone and Faulty Posture.		Teeth Defects.		Mouth Defects.						Skin.					
							Oral Sepsis.		Sore Tongue.		Cheilosis.		Dry Skin.		Phryno-derma.		Mozaic.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Namalata	42	45	8	6	16	12	13	18	..	..	..	..	18	5	..	..	..	..
Kiuva	23	33	10	16	5	14	9	7	..	..	..	..	13	14	..	..	..	1
Nausori	60	56	33	16	39	29	40	29	..	..	..	..	33	27	..	..	..	..
Toga	29	24	16	12	18	9	13	20	..	..	2	..	16	6	..	..	1	..
Totals	154	158	67	50	78	64	75	74	..	..	2	..	80	52	..	..	1	1

LAUTOKA DISTRICT.

VILLAGE SCHOOLS—AGES 5–14.

Vitogo	33	35	9	10	31	31	26	18	..	..	..	..	16	7	..	..	..	..
Viseisei	19	26	6	9	17	22	8	6	..	..	..	..	5	2	..	..	..	..
Tavakubu	13	15	4	4	13	15	7	7	..	..	..	..	8	4	..	..	..	..
Sabeto	14	25	9	6	12	17	7	9	..	..	..	..	14	15	..	..	..	..
Totals	79	101	28	29	73	85	48	40	..	..	..	..	43	28	..	..	..	..

TABLE B. 1C—SIGNS OF NUTRITIONAL ILL-HEALTH—FIJIAN—(*Continued*).

TOTALS AND PERCENTAGES.

Schools.	No. of Children.	Poor Muscle Tone and Faulty Posture.		Teeth Defects.		Mouth Defects.						Skin.					
						Oral Sepsis.		Sore Tongue.		Cheilosis.		Dry Skin.		Phryno-derma.		Mozaic.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Suva Day Schools	958	102	10·3	429	44·8	306	31·9	3	0·3	1	0·1	182	19·0	10	1	1	0.1
Boarding Schools	1,065	121	11·3	352	33	258	24·2	1	0·09	11	1	361	33·9	22	2	3	0·3
Village Schools	312	117	37·5	142	45·5	149	47·7	..	..	2	0·6	132	42·3	..	..	2	0·6
Lautoka Village Schools	180	57	31·6	158	87·7	88	48·8	..	..	..	..	71	39·4	..	..	..	..
Totals	2,515	397	15·8	1,081	42·9	801	31·8	4	0·15	14	0·5	746	29·7	32	1	6	0·2
Gilbertese—Lodoni	49	..	..	1	2	8	16·3	..	..	..	..	3	6·1	..	..	..	..

TABLE B. 2—SIGNS OF NUTRITIONAL ILL HEALTH—INDIAN.

DAY SCHOOLS—AGES 5-18.

Schools.	No. of Children.		Poor Muscle Tone and Faulty Posture.		Teeth Defects.		Mouth Defects.						Skin.					
							Oral Sepsis.		Sore Tongue.		Cheilosis.		Dry Skin.		Phryno-derma.		Mozaic.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Toorak	257	..	50	..	91	..	107	..	1	..	2	..	42	..	3	..	..	..
St. Columba	414	..	42	..	156	..	39	..	..	..	2	..	71	..	3	..	..	..
Marist	116	..	13	..	45	..	15	..	..	..	..	..	11	..	10	..	..	..
Samabula, Government	416	..	48	..	230	..	99	..	..	..	..	..	99	..	..	..	2	..
Dudley	..	309	..	27	..	180	..	97	..	..	..	3	..	51	..	36	..	..
St. Annes	..	131	..	22	..	82	..	31	..	..	..	1	..	13	..	1	..	..
Vatuwaqa	109	219	25	28	78	159	47	126	..	..	..	..	37	90	7	22	..	..
Islamic	10	74	2	5	8	34	3	13	..	..	..	..	3	13	..	..	..	..
Arya Samaj	..	342	..	8	..	155	..	38	..	1	..	..	..	100	..	2	..	3
St. Philomena	..	8	..	..	..	4	..	2	..	..	..	..	..	2	..	..	..	..
Rishkul	217	80	9	11	92	37	41	17	..	..	..	..	64	11	..	..	..	..
Samabula, S.D.A.	191	60	..	10	94	21	30	11	..	..	..	..	47	14	..	..	..	..
Colo-i-Suva	71	34	4	4	29	19	23	11	..	..	..	1	25	6	..	..	1	1
Lelean	10	..	2	..	7	..	..	..	..	..	..	..	2	..	..	..	..	..
Fulton	116	30	29	2	26	13	12	1	..	..	..	..	17	6	..	..	..	1
Totals	1,927	1,287	224	117	856	704	416	347	1	1	4	5	418	306	23	61	3	5

		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent
Total—Boys and Girls	3,214	341	10·6	1,560	48·5	763	23·6	2	0·06	9	0·3	724	22·5	84	2·6	8	0·2.

TABLE B. 3—SIGNS OF NUTRITIONAL ILL-HEALTH—PART-EUROPEAN.

DAY AND BOARDING SCHOOLS—AGES 5-18.

School.	No. of Children.		Poor Muscle Tone and Faulty Posture.		Teeth Defects.		Mouth Defects.						Skin.					
							Oral Sepsis.		Sore Tongue.		Cheilosis.		Dry Skin.		Phryno-derma.		Mozaic.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Wesley	54	37	2	1	43	30	33	24	..	..	..	..	16	8	2	5	..	..
St. Joseph	..	80	..	20	..	49	..	5	..	..	..	..	..	3	..	..	..	..
St. Philomena	..	83	..	27	..	46	..	31	..	..	..	..	..	1	..	..	..	..
Grammar, Junior	67	117	25	42	40	64	5	12	..	..	..	..	6	10	..	..	..	..
Grammar, Senior	38	19	6	5	22	14	2	..	..	..	..	..	2	..	..	..	..	..
St. Felix	181	..	4	..	68	..	11	..	..	..	..	..	4	..	..	..	..	..
Marist	21	..	1	..	11	..	1	..	..	..	..	..	..	..	..	..	..	..
Totals	361	336	38	95	184	203	52	72	..	..	..	..	28	22	2	5	..	..

		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Total—Boys and Girls	697	133	19	387	55·5	124	18	..	..	..	..	50	7	7	1	..	..

EUROPEAN.

St. Joseph	..	21	..	4	..	17	..	1	..	..	..	..	..	..	..	..	..	..
Grammar, Junior	123	97	47	26	72	68	3	5	..	..	..	..	..	..	..	..	..	..
Grammar, Senior	59	36	19	14	47	30	..	1	..	..	..	..	..	..	..	..	..	..
Totals	182	154	66	44	119	115	3	7	..	..	..	..	..	..	..	..	..	..

		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Totals—Boys and Girls	336	110	32·7	234	69·6	10	2·9	..	..	..	..	..	..	..	..	..	..

CHINESE.

Chinese	57	40	2	5	29	31	9	..	..	..	..	..	1	..	..	..	..	..
Totals																		

	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
	76	7	7·2	60	61·8	9	9·3	..	..	..	..	1	1	..	..	..	..

TABLE B. 4—SIGNS OF NUTRITIONAL ILL-HEALTH—RACIAL DIFFERENCES.

TOTALS.

Race.	No. of Children.	Poor Muscle Tone and Faulty Posture.		Teeth Defects.		Mouth Defects.						Skin.					
						Oral Sepsis.		Sore Tongue.		Cheilosis.		Dry Skin.		Pityriasis Versicolor.		Mosaic.	
	No.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Fijian	2,515	397	15·8	1,081	42·9	801	31·8	4	..	14	—0·7	746	29·7	32	1·2	6	0·2
Indian	3,214	341	10·6	1,560	48·5	763	23·6	2		9	—0·3	724	22·5	84	2·6	8	0·2
Part-European	697	133	19	387	55·5	124	17·8	..	..	..	..	50	7·1	7	1·0	..	..
European	336	110	32·7	234	69·6	10	2·9	..	..	..	..	..	..	..	..	..	..

SIGNS OF NUTRITIONAL ILL HEALTH.

NOTES TO ACCOMPANY TABLE B.

1. Muscular Tone.

Poor muscle tone associated with faulty posture was recorded only when muscles were definitely flabby and posture bad. Lordosis, postural scoliosis and the Knudsen Schiotz sign of the median dorsal furrow frequently occurred. Due allowance was made for racial differences of physique.

Fijian.—15·8 per cent showed one or other of these defects. (Range 10·3 per cent in Suva day schools—to 37·5 per cent in a village school series).

Indian.—10·6 per cent—all in Suva.

Part-European.—19 per cent—all in Suva.

European.—32·7 per cent—all in Suva.

2. Teeth.

Defective teeth were recorded when one or more of the following occurred—

(*a*) Caries of more than one tooth of the temporary dentition.
(*b*) Caries of one or more teeth of the permanent dentition.
(*c*) Mottling of two or more teeth.
(*d*) Crowding and/or badly formed jaw and palate.
(*e*) Fillings and/or extractions.

Fijian.—43 per cent showed one or more of these defects. The range was from 33 per cent at five boarding schools, where to some extent children are picked for good physique before admission, to 88 per cent in four village schools in the Lautoka area.

Indian.—48 per cent of the children, all in the Suva area, showed these defects. Again the 5—8 group was worst—65 per cent of all examined.

A small series of Gilbertese children may be mentioned—only 49 in all. But it is significant that these children, with their fish and coconut diet in early childhood, showed only two per cent with defective teeth.

Chinese, part-European and European children all show similar teeth defects, ranging from 56 per cent in the part-European children, to 62 per cent in the Chinese.

A point of interest is that European children in the 5—8 age group do not show the bigger percentage defective that we see in other races. This is to be expected, as most European mothers have some knowledge of and interest in child management in the earlier years. It is only as the child grows older and becomes more able to look after itself, and to some extent feed itself, that unsuitable diets tend to be given.

3. Mouth.

(*a*) *Oral Sepsis.*—Varying degrees of unhealthy mouths were found—septic conditions, gingivitis, overgrowth of mucous membrane, swollen, spongy and bleeding gums. Many mouths showed a combination of these conditions.

Twenty-four per cent of Fijian children and 31 per cent of Indian children showed these defects.

(*b*) *Eroded Tongue.*—There were a very few cases showing slight degrees of fissuring and erosion of the mucous membrane of the tongue. No severe cases were found. The specific glossitis associated with ariboflavinosis was not found at all, nor was the glossitis associated with nicotinic acid deficiency.

(*c*) *Angular Stomatitis.*—This superficial erosion of the mucous membrane of the lips, at the angles of the mouth, was rarely found. Slight maceration and fissuring of the epithelium in this site, occurred in only 23 children in the whole series. A few children showed marked vertical fissuring of the lips (or perleche).

4. Eye Changes.

Bitots Spots.—Most children showed some degree of thickening and pigmentation of the conjunctiva over the sclerotics. Only a few true Bitots spots were found. This pigmentation is the precursor of the fully developed Bitots spots. It was noticed that the maximum thickening and hyperplasia did occur in the outer quadrant of the sclerotics—which is the site of the typical Bitots spots.

Photophobia and lachrymation and complaints of poor vision—not borne out by a visual test—were often found.

5. Skin Changes.

(*a*) *Dry Skin.*—This was recorded when there was loss of the normal gloss of the skin, associated with varying degrees of dryness. It is an atrophic condition often associated with loss of elasticity of the skin, and sweat and sebaceous glands do not function efficiently. This condition merges into that of mozaic eruption.

(*b*) *Dry Skin with Mozaic.*—This was recorded only when a severe degree of dryness and fissuring of the epidermis was present with a wide distribution. The distribution may be widespread but it is typically found on shins and thighs. The moist varieties described as crazy pavement eruption by Williams were not seen, nor were the depigmentation, œdema and hair changes described by her, seen at all.

(*c*) *Phrynoderma or Toadskin.*—Was recorded if present whether in small patches or as a more generalized eruption. Special attention was paid to varying degrees of "hyperkeratosis follicularis", especially found around the extensor aspects of arm and forearm. It is this condition that has been described as having a "nutmeg grater" feel, and which is produced by the hyperkeratosis and atrophy of the sebaceous glands. Plugging of the ducts with degenerate epithelium occurs and leads to a dry skin and papular eruption. The centres of these papules are frequently pigmented. In the more severe cases sweat glands are also affected and the skin may be rough and fissured all over the body.

(*d*) *Pellagra-like Eruptions.*—Occurred either alone or together with the skin lesions described above. Sometimes there was a scaly roughening and pigmentation, especially in exposed portions such as dorsum of hands and feet and on the face. This proved to be partly due to a nicotinic acid deficiency. (Two children with this condition improved greatly with 100 mg. nicotinic acid daily for ten days).

One or other of the skin lesions described above was found in 31 per cent of the Fijian children examined, and in 25 per cent of Indian.

6. Hair Changes.

Were not observed. Most children, however, treat their hair with coconut oil and changes may have been masked by this.

Neither œdema nor the condition described as burning feet were found.

7. Infections.

Of different kinds were common. Unhealed sores were frequently found, a history of diarrhœas and respiratory tract infections frequently obtained, and profuse and persistent nasal catarrh often observed.

8. Bradycardia.

Pulse rates were checked at two schools only. Thirty-four per cent of Fijians gave pulse rates lower than the accepted standards for age. Sixteen per cent of Indians showed low pulse rates.

9. Pigmentation of Tongue Papillæ.

Tongue papillæ were found to be pigmented in many cases who showed skin changes. The degree varied from pigmentation of a few, to nearly all papillæ showing changes.

TABLE C. 1—DENTAL AND NUTRITIONAL DEFECTS.

FIJIANS—SUVA SCHOOLS.

School.	No. Examined. 5–18 years.		Dental Defects. 5–18 years.		Dental Defects Treated.		Nutritional Defects. 5–18 years.		No. Examined. 5–8 years.		Dental Defects. 5–8 years.		Nutritional Defects. 5–8 years.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Toorak	284	..	78	..	34	..	94	..	63	..	36	..	50	..
St. Columba	98	..	40	..	2	..	44	..	31	..	17	..	21	..
Marist	9	..	3	..	1	..	4	..	..	..	..	..	..	..
Annesley	..	246	..	135	..	..	..	189	..	61	..	34	..	49
St. Annes	..	134	..	77	..	6	..	83	..	44	..	38	..	38
Suvavou	38	34	22	19	..	..	31	26	11	12	9	8	11	12
Tamavua	14	11	6	7	..	..	12	9	7	9	3	6	5	7
Draiba	25	5	21	3	..	..	24	5	10	5	8	3	10	5
Sawani	29	31	10	8	..	..	25	26	10	9	6	1	10	6
Totals	497	461	180	249	37	6	234	338	132	140	79	90	107	117
Total Boys and Girls	958		No. 429	Per cent. 44·8	No. 43	Per cent. 4·5	No. 572	Per cent. 59·7	272		No. 169	Per cent. 62·1	No. 224	Per cent. 82·4

FIJIANS—VILLAGE SCHOOLS.

School.	No. Examined. 5–18 years.		Dental Defects. 5–18 years.		Dental Defects Treated.		Nutritional Defects. 5–18 years.		No. Examined. 5–8 years.		Dental Defects. 5–8 years.		Nutritional Defects. 5–8 years.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Namalata	42	45	16	12	..	..	25	22	17	21	7	9	12	16
Viwa	23	33	5	14	..	..	16	17	7	10	3	7	5	7
Nausori	60	56	39	29	..	..	56	38	34	23	29	14	31	23
Toga	29	24	18	9	..	..	28	18	12	12	10	5	11	8
Totals	154	158	78	64	..	..	125	95	70	66	49	35	59	54
Total Boys and Girls	312		142 = 45·5		....		220 = 70·5		136		84 = 61·8		113 = 83·0	

FIJIANS—BOARDING SCHOOLS.

Ballantyne	..	212	..	72	..	41	..	109	..	..	..	..	..	..
Lodoni	228	..	58	..	35	..	96	..	..	..	..	..	..	..
Sawani	144	..	43	..	18	..	80	..	..	..	..	..	..	..
Lelean	259	33	106	13	33	5	226	25	8	..	6	..	6	..
Fulton	116	73	40	20	..	6	71	33	6	8	6	6	6	7
Totals	747	318	247	105	86	52	473	167	14	8	12	6	12	7
Total Boys and Girls	1,065		No. 352 = 33	Per cent.	No. 138 = 12·9	Per cent.	No. 640 = 60	Per cent.	22		No. 18 = 81·8	Per cent.	No. 19 = 86·4	Per cent.

FIJIANS—VILLAGE SCHOOLS LAUTOKA DISTRICT.

Vitogo	33	35	31	31	..	..	32	34	12	20	12	19	12	20
Viseisei	19	26	17	22	..	..	18	24	16	17	14	16	15	17
Tavakubu	13	15	13	15	..	..	13	15	8	10	8	10	8	10
Sabeto	14	25	12	17	..	..	14	19	7	11	5	5	7	9
Totals	79	101	73	85	..	..	77	92	43	58	39	50	42	56
Total Boys and Girls	180		158 = 87·7		....		169 = 93·9		101		89 = 88·0		98 = 97·0	

TABLE C. 1—DENTAL AND NUTRITIONAL DEFECTS—*Continued.*—
FIJIANS—TOTALS.

School.	No. Examined. 5–18 years.		Dental Defects. 5–18 years.		Dental Defects Treated.		Nutritional Defects. 5–18 years.		No. Examined. 5–8 years.		Dental Defects. 5–8 years.		Nutritional Defects. 5–8 years.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Suva Schools	497	461	180	249	37	6	234	338	132	140	79	90	107	117
Boarding Schools	747	318	247	105	86	52	473	167	14	8	12	6	12	7
Village Schools	154	158	78	64	..	..	125	95	70	66	49	35	59	54
Village Schools, Lautoka	79	101	73	85	..	..	77	92	43	58	39	50	42	56
Totals	1,477	1,038	578	503	123	58	909	692	259	272	179	181	220	234
Total Boys and Girls	2,515		1,081=42·9		181 = 7·2		1,601=63·7		531		360 = 67·8		454 = 85·5	

TABLE C. 2—DENTAL AND NUTRITIONAL DEFECTS.
INDIAN, CHINESE, GILBERTESE AND BANABAN.

School.	No. Examined. 5–18 years.		Dental Defects. 5–18 years.		Dental Defects Treated.		Nutritional Defects. 5–18 years.		No. Examined. 5–8 years.		Dental Defects. 5–8 years.		Nutritional Defects. 5–8 years.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
INDIAN.														
Toorak	257	..	91	..	20	..	108	..	72	..	49	..	57	..
St. Columba	414	..	156	..	9	..	205	..	124	..	84	..	91	..
Marist	116	..	45	..	12	..	51	..	..	..	..	..	..	..
Samabula, Government	416	..	230	..	1	..	284	..	188	..	132	..	151	..
Dudley	..	309	..	180	..	17	..	185	..	101	..	73	..	76
St. Annes	..	131	..	82	..	23	..	93	..	58	..	41	..	50
Vatuwaqa	109	219	78	159	3	9	91	170	86	85	66	53	75	68
Islamic	10	74	8	34	..	..	8	38	10	30	8	20	8	20
Arya Samaj	..	342	..	155	..	4	..	224	..	183	..	101	..	125
St. Philomena	..	8	..	4	..	2	..	6	..	..	..	..	..	..
Rishkul	217	80	92	37	1	..	139	45	106	55	59	30	77	34
Samabula	191	60	94	21	..	..	..	..	52	29	40	17	44	21
Colo-i-Suva	71	34	29	19	..	..	51	22	29	27	19	19	26	15
Lelean	10	..	7	..	2	..	8	..	..	..	..	..	..	..
Fulton	116	30	26	13	4	..	..	18	13	10	..	3	10	5
Totals	1,927	1,287	856	704	52	55	945	801	680	578	457	357	539	414
Total Boys and Girls	3,214		1,560 = 48		107 = 3·3		1,740 = 54		1,258		814 = 64·7		953 = 75·8	
CHINESE	57	40	29	31	..	1	33	32	25	20	19	18	19	18
Total Boys and Girls	97		60 = 61·8		....		65 = 76		45		37 = 82		37 = 82	
GILBERTESE (Lodoni)	49	..	1	..	..	..	11	..	..	..	..	..	..	..
Total Boys	49		1 = 2		....		11 = 22·4		....		....		....	
BANABAN (Lodoni)	20	..	3 = 25		....		11 = 55		....		....		....	

TABLE C. 3—DENTAL AND NUTRITIONAL DEFECTS.
PART-EUROPEAN AND EUROPEAN.

School.	No. Examined. 5–18 years.		Dental Defects. 5–18 years.		Dental Defects Treated.		Nutritional Defects. 5–18 years.		No. Examined. 5–8 years.		Dental Defects. 5–8 years.		Nutritional Defects. 5–8 years.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
PART-EUROPEAN.														
Wesley	54	37	43	30	..	..	48	36	21	22	19	15	20	19
St. Joseph	..	80	..	49	..	13	..	61	..	28	..	14	..	22
St. Philomena	..	83	..	46	..	4	..	60	..	23	..	14	..	19
St. Felix	181	..	68	..	3	..	80	..	..	..	..	..	..	..
Marist	21	..	11	..	..	..	11	..	..	..	..	..	..	..
Grammar, Junior	67	117	40	64	7	21	45	90	39	58	25	35	31	44
Grammar, Senior	38	19	22	14	11	10	23	14	..	..	..	..	..	..
Totals	361	336	184	203	21	48	207	261	60	131	44	78	51	104
Total Boys and Girls	697		387 = 55·5		69 = 9·9		468 = 67		191		122 = 63·9		155 = 81	
EUROPEAN.														
St. Joseph	..	21	..	17	..	13	..	18	..	3	..	3	..	3
Grammar, Junior	123	97	72	68	44	33	93	75	78	56	32	36	51	42
Grammar, Senior	59	36	47	30	38	27	51	31	..	..	..	..	..	..
Totals	182	154	119	115	82	73	144	124	78	59	32	39	51	45
Total Boys and Girls	336		234 = 69·6		155		268 = 79·7		137		71 = 51·9		96 = 70	

TABLE C. 4—DENTAL AND NUTRITIONAL DEFECTS.
TOTALS.

Race.	5–18 Years.					5–8 Years.				
	No. Examined.	Dental Defects.	Per cent Defective.	Nutritional Defects.	Per cent Defective.	No. Examined.	Dental Defects.	Per cent Defective.	Nutritional Defects.	Per cent Defects.
Fijian	2,515	1,081	42·9	1,601	63·7	531	360	67·8	454	85·5
Indian	3,214	1,560	48	1,740	54	1,258	814	64·7	953	75·8
Part-European	697	387	55·5	468	67	191	122	63·9	155	81
European	336	234	69·6	286	79·7	137	71	51·9	96	70

TABLE D. 1—ANALYSIS OF DISEASES.

(For Nutritional Ill-Health see Table B.)

FIJIAN—BOYS.

School.	No. of children.	Nits.	Skin.					Yaws.	Tonsils enlarged.	Vision.		Eye Disease.			Ears.		Lungs.	Heart.			Deformities.			T.B. Glands—Neck.	Epilepsy.	Mumps.	Others.	Totals—excluding Nits.
			Sores.	Scabies.	Tinea.	Acne.	Others.			Defective vision.	Squint.	Conjunctivitis.	Corneal opacities.	Pterygium.	Defective hearing.	Otitis.	Bronchitis.	Haemic murmers.	Rheumatic.	Others.	Postural.	Others.						
																						Injuries.	Others.					
Toorak	284	41	5	2	3	10	..	1	3	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	30
St. Columba	98	32	2	1	3	2	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	11
Marist	9	..	..	..	1	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Suvavou	38	17	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Tamavua	14	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Draiba	25	19	3	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	8
Sawani	29	..	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Lodoni	228	..	25	..	3	..	1	..	..	..	..	2	..	1	..	..	..	..	..	..	6	2	1	..	..	..	5	46
Sawani, Provincial	144	1	5	..	2	..	..	1	..	..	1	..	2	..	..	1	..	..	..	..	..	..	1	..	..	..	1	14
Lelean	259	5	4	..	19	..	..	2	..	..	2	..	1	..	..	1	..	1	..	..	6	3	..	..	..	..	1	40
Fulton	116	23	..	1	6	..	..	1	..	..	..	..	1	..	1	..	..	..	1	1	..	1	2	..	..	..	..	15
Namalata	42	16	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2
Kuiva	23	3	1	4	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	8
Nausori	60	38	2	1	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	5
Toga	29	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vitogo	33	17	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Viseisei	19	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tavakubu	13	12	2	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	6
Sabeto	14	7	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Totals	1,477	249	57	12	42	15	2	12	3	4	4	3	7	1	2	2	1	1	1	1	13	7	6	1	1	2	8	208

TABLE D. 1—(*Continued*).

FIJIAN—GIRLS.

School.	No. of children.	Nits.	Skin.					Yaws.	Tonsils.	Anæmia.	Vision.		Eye Disease.			Ears.			Lungs.		Heart.			Deformities.			T.B. Glands—Neck.	Epilepsy.	Mumps.	Others.	Totals—excluding Nits.
			Sores.	Scabies.	Tinea.	Acne.	Others.				Defective vision.	Squint.	Conjunctivitis.	Corneal opacities.	Pterygium.	Defective hearing.	Otitis.	Others.	Bronchitis.	Asthma.	Hæmic murmers.	Rheumatic.	Others.	Postural.	Others.						
																								Scoliosis.	Injuries.	Others.					
Annesley	246	78	9	9	12	5	..	12	2	..	2	..	3	..	..	..	..	..	..	1	..	..	..	..	1	2	1	..	1	..	60
St. Annes	134	80	5	3	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	11
Suvavou	34	11	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Tamavua	11	3	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Draiba	5	5	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	6
Sawani	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ballantyne	212	..	7	..	13	..	1	2	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	28
Lelean	33	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Fulton	73	28	4	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	8
Namalata	45	27	1	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	5
Kinva	33	6	..	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	5
Nausori	56	32	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Toga	24	3	2	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Vitogo	35	19	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Viseisei	26	18	2	1	2	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	8
Tavakubu	15	7	3	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	9
Sabeto	25	15	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Girls	1,038	303	40	21	39	6	2	20	2	1	5	1	4	1	1	..	3	..	3	1	..	..	..	1	4	4	3	..	1	1	164
Boys	1,477	249	57	12	42	15	2	12	3	..	4	4	3	7	1	2	2	1	..	..	1	1	1	13	7	6	1	1	2	8	208
Totals	2,515	552	97	33	81	21	4	32	5	1	9	5	7	8	2	2	5	1	3	1	1	1	1	14	11	10	4	1	3	9	372
Totals and Percentages		21·9	236 = 9·3					1·2	..	..	14 = 0·5		17 = 0·6			8			4		3									

TABLE D. 1—ANALYSIS OF DISEASES.—(*Continued*).

School.	No. of Children.	Sores.	Tinea.	Tonsils.*	Defective Vision.	Bronchitis.	Injuries.	T.B. Glands neck.	Others.
GILBERTESE.									
Lodoni	49	3	1	....	....	1	1	....	1
BANABAN.									
Lodoni	20	6	....	....	1	....	....	....	....
CHINESE.									
Chinese (Boys and Girls).	97	5	....	3	....	....	3	....	2

TABLE D. 2—ANALYSIS OF DISEASES.

(For Nutritional Ill-Health see Table B.)

INDIAN.

School.	No. of children.	Nits and lice.	Skin.				Tonsils enlarged.	Anæmia.	Vision.			Eye Disease.				Ears.					Heart.		Deformities.			Congenital Syphilis (Kahn+).	Epilepsy.	Mumps.	Leprosy.	Others.	Total No. Defects excluding nits and lice.
			Sores.	Scabies.	Tinea.	Acne.			Defective vision.	Strabismus.	Glasses.	Conjunctivitis.	Corneal opacities.	Pterygium.	Others.	Defective hearing.	Otitis.	Bronchitis.	Asthma.	Pneumonia.	Hæmic murmurs.	Rheumatic.	Scoliosis.	Injuries.	Others.						
BOYS.																														
Toorak	257	68	12	6	3	4	4	..	..	..	..	..	..	..	2	..	2	..	..	1	..	..	1	..	..	..	..	1	..	1	37
St. Columba	414	149	5	1	..	8	2	4	5	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	29
Marist	116	..	1	1	..	17	..	..	4	2	..	..	..	..	4	..	..	..	1	..	..	..	..	..	..	1	..	..	..	3	34
Samabula, Government	414	46	7	2	2	..	..	1	3	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	1	..	..	2	22
Rishikul	217	29	4	2	2	1	1	..	..	..	..	..	2	2	1	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	18
Samabula, S.D.A.	191	20	4	2	1	1	..	..	1	..	..	..	..	..	1	1	2	..	..	..	..	..	..	1	..	..	..	..	..	1	15
Colo-i-Suva	71	..	4	..	..	..	..	..	1	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	8
Lelean	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1	..	..	..	..	..	5
Fulton	116	32	..	..	2	..	..	..	..	1	..	..	1	..	..	..	..	1	1	..	1	..	1	..	1	1	..	..	..	..	10
Vatuwaqa	109	33	4	2	2	..	2	..	..	2	..	..	2	..	..	1	..	..	1	..	..	..	3	..	..	1	..	..	..	2	19
Islamic	10	15	2	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*6	10
Totals	1,925	390	43	16	12	31	10	5	14	7	..	2	5	2	11	2	4	2	6	1	1	..	7	6	2	3	1	1	1	15	207
GIRLS.																														
Dudley	309	136	2	1	7	10	2	12	1	1	1	2	..	..	1	..	3	..	4	..	..	1	..	..	..	..	1	..	..	7	35
St. Annes	131	62	2	..	1	1	..	..	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Vatuwaqa	219	112	6	2	..	6	1	..	1	1	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	2	23
Islamic	74	13	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3
Arya Samaj	342	102	12	1	..	3	..	1	..	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	24
St. Philomena	10	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Rishikul	80	22	3	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	8
Samabula, S.D.A.	60	11	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	5
Colo-i-Suva	34	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fulton	30	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total—Girls	1,289	487	27	8	8	21	3	13	6	3	3	2	1	1	3	1	6	..	5	..	..	1	..	1	3	1	1	..	..	11	108
Total—Boys	1,925	390	43	16	12	31	10	5	14	7	..	2	5	2	11	2	4	2	6	1	1	..	7	6	2	3	1	1	1	15	207
Totals—Boys and Girls	3,214	877	70	24	20	52	13	18	20	10	3	4	6	3	14	3	10	2	11	1	1	1	7	7	5	4	2	1	1	26	315
Total and Percentages		27·3	166 = 5·2				0·3		32 = 1			26 = 0·8				13 = 0·4		14 = 0·4			2					14					9·8

* Five Dengue.

TABLE D. 3—ANALYSIS OF DISEASES.—(*Continued.*)

PART-EUROPEAN.

School.	No. of children.	Nits.	Skin.					Tonsils enlarged.	Tonsils removed.	Anaemia.	Vision.			Eye	Ears.		Lungs.		Heart.		Deformities.			Congenital Syphilis.	Others.	Totals—excluding Nits.	Percentage.
			Sores.	Scabies.	Tinea.	Acne.	Others.				Defective vision.	Squint.	Glasses.	Conjunctivitis.	Defective hearing.	Otitis.	Bronchitis.	Asthma.	Haemic murmurs.	Rheumatic.	Scoliosis.	Lordosis.	Others.				
BOYS.																											
St. Felix	181	51	5	..	..	2	..	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	..	..	1	12	
Marist	21	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	6	
Wesley	54	7	14	3	1	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	22	
Grammar, Junior	67	..	3	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	..	..	..	2	..	..	5	13	
Grammar, Senior	38	..	..	..	..	4	..	..	..	..	..	..	2	..	..	..	..	..	1	..	1	..	1	..	..	8	
Totals	361	58	22	3	2	10	..	..	..	..	3	2	2	2	..	..	1	2	1	..	1	2	3	..	6	61	
GIRLS.																											
St. Joseph	80	3	2	..	1	5	..	1	..	1	2	1	1	..	3	..	1	..	2	1	3	..	3	2	..	29	122 = 17·5
St. Philomena	83	46	3	..	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	9	
Wesley	37	34	3	1	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	10	
Grammar, Junior	117	20	1	..	..	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	4	..	3	..	..	12	
Grammar, Senior	19	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Totals	336	104	9	1	3	8	1	1	3	2	3	1	1	..	3	1	1	..	2	1	7	..	6	4	2	60	

EUROPEAN.

BOYS.																											
Grammar, Junior	123	..	..	1	..	..	..	..	2	..	2	..	2	..	..	..	5	..	5	..	2	2	..	..	..	21	
Grammar, Senior	59	..	2	..	..	3	..	1	2	..	..	..	1	..	..	..	..	..	..	..	3	..	..	..	..	12	
Totals	182	..	2	1	..	3	..	1	4	..	2	..	3	..	..	..	5	..	5	..	5	2	..	..	..	33	
GIRLS.																											62 = 18·4
Grammar, Junior	97	5	1	..	1	..	..	..	4	..	..	..	1	..	..	1	1	1	..	..	2	1	..	..	2	15	
Grammar, Senior	36	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	..	..	..	..	5	
St. Joseph	21	2	..	..	..	2	..	..	..	..	1	..	1	..	1	..	..	..	..	..	2	1	..	1	..	9	
Totals	154	8	1	..	2	2	..	..	4	..	2	..	2	..	1	1	1	1	..	..	7	2	..	1	2	29	

TABLE E. 1—SUVA SCHOOL CHILDREN.

EXAMINATION OF STOOLS FOR HELMINTHS AND PROTOZOA.

School.	No. Examined.		No. with Multiple Infections.		Total No. Infected.		Per cent Infected.		Analysis of Infestation.													
									Hookworm.		Larvæ.		Ascaris.		Giardia.		Trichuris.		Oxyuris.		E. Histolytica.		Others.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
FIJIANS.																								
Toorak	22	..	4	..	11	..	..	..	7	..	2	..	1	..	1	..	3	..	..	..	1	..	..	..
St. Columba	8	..	2	..	6	..	..	..	4	..	..	..	1	..	..	..	1	..	1	..	1	..	..	..
Samabula, S.D.A.	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Annesley	..	25	..	3	..	12	..	..	..	6	..	2	..	1	..	1	..	3	..	1	..	1	..	1*
St. Annes	..	46	..	6	..	19	..	..	..	10	..	5	..	3	..	2	..	2	..	1	..	2	..	1*
Ballantyne	..	34	..	2	..	21	..	..	..	17	..	..	..	..	..	..	..	2	..	..	..	4	..	1†
Suvavou	5	1	..	..	..	4	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	36	106	6	11	18	56	50	52·8	11	37	2	7	3	4	1	3	4	7	1	2	2	7	..	3
Total Boys and Girls	142		17		74		52		48 = 64·8		9		7		4		11 = 14·8		3		9		3	
MELANESIANS.																								
Wailoku	38	27	10	6	28	16	..	..	23	15	3	1	1	1	3	1	2	1	..	1	6	2	2	1
Total Boys and Girls	65		16		44		67·7		38 = 80		4		2		4		3		1		8 = 18		3	
INDIANS.																								
Toorak	15	..	4	..	10	..	..	..	6	..	1	..	3	..	3	..	..	..	1	..	..	..	..	..
St. Columba	58	..	4	..	17	..	..	..	9	..	1	..	4	..	1	..	1	..	4	..	1	..	..	..
Samabula, S.D.A.	11	7	1	..	3	5	..	..	5	4	1	..	..	..	..	1	..	..	..	..	..	..	..	..
Samabula, Government	87	..	3	..	37	..	..	..	25	..	..	..	8	..	1	..	3	..	4	..	..	..	..	..
Dudley	..	66	..	5	..	23	..	..	..	12	..	1	..	7	..	3	..	1	..	4	..	..	..	..
St. Annes	..	19	..	..	..	3	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..
Arya Samaj	..	87	..	8	..	27	..	..	..	14	..	2	..	10	..	..	..	..	..	10	..	..	..	..
Vatuwaqa	88	136	9	14	34	61	..	..	25	36	1	5	12	17	..	5	3	3	1	9	..	2	..	..
Islamic	19	108	2	7	7	43	..	..	1	18	..	3	6	19	1	2	..	..	1	6	2	..	..	..
Rishikul	15	..	2	..	11	..	..	..	11	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
Colo-i-Suva	16	..	1	..	11	..	..	..	10	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Total	309	423	26	34	130	162	42	38·3	92	85	5	11	34	53	6	12	7	4	13	30	3	2	..	..
Total Boys and Girls	732		60		292		39·9		177 = 60		16		87 = 29		18		11		43		5 = 2		....	

TABLE E. 2.

* Iodamœba butchlii. † Hymenolepisnana.

TABLE E. 3—SUVA SCHOOL CHILDREN.
EXAMINATION OF STOOLS FOR HELMINTHS AND PROTOZOA.

School.	No. Examined.		No. with Multiple Infections.		Total No. Infected.		Per cent Infected.		Analysis of Infestation.													
									Hookworm.		Larvæ.		Ascaris.		Giardia.		Trichuris.		Oxyuris.		E. Histolytica.		Others.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
PART-EUROPEANS.																								
Wesley	54	37	3	9	21	26	..	..	18	17	1	2	1	8	..	2	1	5	1	2	1	2	..	..
Grammar	27	26	3	2	11	9	..	..	7	7	2	1	1	1	3	1	2	3	..	..	1	..	..	..
Totals	81	63	6	11	32	35	..	..	25	24	3	3	2	9	3	3	3	8	1	2	2	2	..	..
Total Boys and Girls	144		17		67		46·5		49 = 73		6		11 = 16		6		11 = 16		3		4		....	
EUROPEANS.																								
Grammar	46	56	..	1	11	10	..	..	6	6	..	1	..	..	1	..	..	..	..	3	4	..	..	..
Total Boys and Girls	102		1		21		20·6		12 = 57		1		....		1		....		3		4 = 19		....	

AVERAGE HEIGHTS OF CHILDREN IN VITI LEVU, FIJI.

Age.	Fijians.		Indians.		Europeans.		Part-Europeans.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5 Years—								
Number of Children ..	28	23	60	56	26	11	9	26
Average Height (inches)	43·4	44·3	42·8	41·9	44·2	43·8	44·9	43·7
6 Years—								
Number of Children ..	53	64	165	178	20	18	32	38
Average Height (inches)	45·7	45·6	44·5	43·9	47·3	46·9	46·8	45·1
7 Years—								
Number of Children ..	75	70	249	181	21	15	27	35
Average Height (inches)	47·8	47·9	46·4	45·8	49·4	50·7	50·0	48·2
8 Years—								
Number of Children ..	72	67	199	190	20	12	23	39
Average Height (inches)	49·5	50·3	48·9	47·3	52·0	51·6	51·0	49·6
9 Years—								
Number of Children ..	66	74	215	165	20	16	36	37
Average Height (inches)	51·1	52·0	50·5	50·4	53·2	52·6	53·2	53·3
10 Years—								
Number of Children ..	67	52	167	155	12	9	31	22
Average Height (inches)	53·3	54·3	52·1	51·7	54·2	55·6	54·8	54·1
11 Years—								
Number of Children ..	126	78	175	107	8	10	39	40
Average Height (inches)	55·3	57·1	54·4	53·9	56·3	59·1	57·1	57·5
12 Years—								
Number of Children ..	149	83	156	95	7	14	22	27
Average Height (inches)	57·4	59·0	56·1	56·5	58·7	59·9	59·1	58·1
13 Years—								
Number of Children ..	158	85	134	75	3	7	20	33
Average Height (inches)	58·8	60·9	59·1	58·2	63·3	60·9	61·7	60·9
14 Years—								
Number of Children ..	155	99	115	57	3	5	11	32
Average Height (inches)	61·2	63·3	61·1	60·1	65·3	62·8	66·1	63·1
15 Years—								
Number of Children ..	145	79	92	43	2	3	8	16
Average Height (inches)	62·4	63·3	62·9	60·4	66·5	65·7	67·1	64·4
16 Years—								
Number of Children ..	119	55	55	38	....	....	5	6
Average Height (inches)	65·1	64·2	64·9	60·4	....	....	68·4	64·8
17 Years—								
Number of Children ..	87	24	33	5	....	....	8	1
Average Height (inches)	66·5	64·4	65·5	61·6	....	....	68·8	66
18 Years								
Number of Children ..	34	3	10	....	....	....	....	....
Average Height (inches)	66·9	65·0	67·7	....	....	....	....	....

AVERAGE WEIGHTS OF CHILDREN IN VITI LEVU, FIJI.

Age.	Fijians.		Indians.		Europeans.		Part-Europeans.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5 Years—								
Number of Children ..	28	23	60	56	26	11	9	26
Average Weight (lb) ..	41·3	42·2	36·5	35·3	41·3	42·5	39·9	39·1
6 Years—								
Number of Children ..	53	64	165	178	20	18	32	38
Average Weight (lb) ..	43·3	44·9	38·3	37·7	49·7	42·8	45·5	45·6
7 Years—								
Number of Children ..	75	70	249	181	21	15	27	35
Average Weight (lb) ..	49·4	48·9	41·5	40·9	52·7	53·1	51·4	48·9
8 Years—								
Number of Children ..	72	67	199	190	20	12	23	39
Average Weight (lb) ..	53·5	56·3	45·1	42·8	58·7	57·5	55·5	52·3
9 Years—								
Number of Children ..	66	74	215	165	20	16	36	37
Average Weight (lb) ..	59·8	61·4	49·1	51·9	62·4	62·8	66·9	65·7
10 Years—								
Number of Children ..	67	52	167	155	12	9	31	22
Average Weight (lb) ..	65·2	69·5	55·0	56·7	70·7	67·6	55·7	69·5
11 Years—								
Number of Children ..	126	78	175	107	8	10	39	40
Average Weight (lb) ..	72·1	80·5	61·5	62·7	71·1	82·3	77·5	78·9
12 Years—								
Number of Children ..	149	83	156	95	7	14	22	27
Average Weight (lb) ..	79·4	87·5	64·2	73·4	80·4	91·6	86·2	81·5
13 Years—								
Number of Children ..	158	85	134	75	3	7	20	33
Average Weight (lb) ..	120·7	101·1	78·8	82·8	104·0	85·0	96·5	97·3
14 Years—								
Number of Children ..	155	99	115	57	3	5	11	32
Average Weight (lb) ..	96·1	113·1	88·7	91·4	106·3	102·6	116·0	111·1
15 Years—								
Number of Children ..	145	79	92	43	2	3	8	16
Average Weight (lb) ..	105·5	119·5	92·5	94·3	121·0	116·6	123·0	124·7
16 Years—								
Number of Children ..	119	55	55	38	....	....	5	6
Average Weight (lb) ..	122·4	128·7	103·9	92·5	....	....	128·8	114·3
17 Years—								
Number of Children ..	87	24	33	5	....	..	8	1
Average Weight (lb) ..	131·5	129·5	111·3	99·6	....	....	130·1	98·0
18 Years—								
Number of Children ..	34	3	10	....	....	....	....	....
Average Weight (lb) ..	136·9	147·7	124·3	....	....	....	....	....

APPENDIX VI.

CENTRAL LEPER HOSPITAL, MAKOGAI.

(ANNUAL REPORT 1947.)

17th February, 1948.

I have the honour to forward the following report on the work of the Central Leper Hospital for the year 1947.

STAFF.

Two additional Nursing Sisters arrived during the year—Sister Mary Virginia from America and Sister Mary Borgia from New Zealand. Sister Mary Nizier went to New Zealand on sick leave in September.

Mr. A. J. Sinclair, Farm Overseer, who has given most efficient service since 1930 with only one break for leave, was granted six months' leave as from October. Mr. L. Bower, Public Works Department Foreman at Makogai since 1925, is carrying out the duties of Farm Overseer in addition to his own, during Mr. Sinclair's absence on leave.

TABLE I.

STATISTICS FOR THE YEAR 1947.

	Europeans.		Eurosians.		Solomon Islander.		Fijian.		Indian.		Chinese.		Rotuman.		Samoan.		Niue Islander.		Cook Islander.		Tongan.		Gilbert Islander.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
In Hospital 1st January, 1947 ..	3	1	10	8	23	5	75	52	182	58	6	...	4	4	28	19	4	2	35	22	16	10	34	10	420	191	611
Admisssons	1	...	1	...	...	2	9	5	39	7	...	...	...	...	7	2	...	2	6	4	5	4	27	25	95	51	146
Deaths	...	...	...	...	3	1	3	1	8	1	...	...	1	...	...	...	...	...	...	...	...	...	3	2	18	5	23
Conditional Discharges	...	1	...	...	1	...	9	6	7	3	...	...	...	...	...	...	...	...	1	...	...	...	1	1	19	11	30
Unconditional Discharges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
In Hospital 31st December, 1947 ..	4	...	11	8	19	6	72	50	206	61	6	...	3	4	35	21	4	4	40	25	21	14	57	32	478	225	703
Totals ..	4		19		25		122		267		6		7		56		8		65		35		89		703		

STATISTICS.

As seen in Table I, the total number of patients has increased during the year by 92, 73 of whom were from outside the Colony and only 19 from Fiji itself. The extra increase includes:—

From Gilbert Islands	45	patients
,, Samoa	9	,,
,, Tonga	9	,,
,, Cook Islands	8	,,
,, Niue Island	2	,,
Total ..	73	,,

Expenditure, of course, depends on the average daily number of patients, rather than on the number actually in Hospital at the beginning or the end of the year. The incorporated list showing " Daily Averages " for the various Administrations participating in the " Makogai Scheme " gives a total daily average of 655·81 patients, 433·79 from Fiji, and 222·02 from outside. The latter figure, however, includes 17 patients of European parentage, who from the accounting point of view are regarded as two " Financial Units " each, and two Chinese, who are counted as one and a half units each, all other patients being reckoned as single units. The 222·02 patients from outside Fiji count, therefore, as 240·02 units, as against 441·37 units for the 433·79 patients from Fiji. As each Administration pays the cost of its own " units ", the Fiji Government will thus recover 35·2 per cent of its annual expenditure on Makogai from the other participating Governments.

DAILY AVERAGE FOR THE DIFFERENT ADMINISTRATIONS FOR THE YEAR 1947.

New Zealand—		
Euronesian	1·00	
Niue	1·00	
		2·00
Western Samoa—		
Euronesian	9·00	
Chinese	1·00	
Melanesian	1·00	
Samoan	37·76	
		48·76
American Samoa—		
Euronesian	4·00	
Samoan	10·00	
		14·00
Cook Islands—		
Euronesian	1·00	
Cook Islanders	56·28	
Niue	5·07	
		62·35
Tonga—		
Tongan	26·32	
		26·32
Gilbert Islands—		
European	1·00	
Euronesian	1·00	
Chinese	1·00	
Gilbert Islanders	65·59	
		68·59
Fiji—		
European	3·33	
Euronesian	2·25	
Chinese	4·00	
Rotuman	7·69	
Melanesian	27·03	
Fijian	130·49	
Indian	259·00	
		433·79
		655·81

TABLE II—ADMISSIONS.

	N–1.	N–2.	N–3.	L–1.	L–2.	L–3.	Totals.
European	....	1	....	....	....	....	1
Euronesian	1	....	....	....	....	....	1
Solomon Islanders ..	....	....	....	1	1	....	2
Fijian	5	6	....	....	3	....	14
Indian	10	17	....	....	18	1	46
Samoan	1	....	....	1	7	....	9
Niue Islanders	....	2	....	....	....	....	2
Cook Islanders	5	4	....	....	1	....	10
Tongan	1	5	....	....	3	....	9
Gilbert Islanders	2	8	....	3	23	16	52
Totals ..	25	43	....	5	56	17	146

Sixty-four of the 146 admissions were from Fiji, and 82 from other South Pacific territories.

Dealing first with the Fiji admissions, it will be seen that the Indians lead easily with 46 cases as against 14 for Fijians, two for Solomon Islanders (domiciled in Fiji), and one each for Europeans and Euronesians. That this represents a real preponderance of leprosy-infected Indians, and is not a fortuitous figure, is indicated not only by the facts that the number of Indian patients has increased by 27 during the year while the Fijian figure has decreased by five, and that the ratio of Indian inmates at Makogai to Fijian is steadily increasing, being now well over 2 : 1, but also by the fact that 19 of the 46 Indian admissions are in the moderately advanced and infective Lepromatous stages as contrasted with only three of the 14 Fijian admissions.

The general preponderance, moreover, of Lepromatous (infective) cases among Indian patients in Fiji in contrast with the low proportion of such cases quoted by workers in India has been previously pointed out. According to Rogers and Muir. " In most parts of India and Africa and elsewhere the Neural type preponderates, forming from 55 to 90 per cent of the whole ", and Muir further writes that " recent Surveys in the villages of India show that on an average out of ten cases one is highly infectious, one is less infectious and eight are non-infectious." This is in marked contrast with our figures, which show 70 per cent of Indians as Lepromatous in type. In the anti-leprosy scheme, therefore, more attention must be directed towards the Indian community than has been done in the past. Living more independent and less supervised lives in more scattered communities than the Fijians, they are much more likely to harbour unsuspected cases, or to succeed in hiding obvious cases.

Of the 52 Gilbert Island admissions, 23 were in the fairly advanced, and 16 in the very advanced stages, of Lepromatous leprosy, and over 80 per cent were infective cases. It is of course, obvious that the inadequacy of treatment and inspection during the war years and the enemy occupation of the Colony have caused further deterioration in what was already, if reliance can be placed on the type of case admitted in the pre-war years, an unsatisfactory leprosy position. It would certainly be over-optimistic to assume, particularly with regard to the advanced cases, and in view of the general lowering of resistance due to war conditions in the Gilbert Islands, that each case represents no more than five other as yet undiagnosed cases.

The finding that seven of the nine Samoan admissions are also moderately advanced Lepromatous cases is not so easily explained. Transport is, of course, a problem, but hardly excuses the situation. There would appear to be urgent need (as also in the case of the Gilbert Islands and Tonga) for further training of one or more Samoan A.M.P.s in the diagnosis of leprosy in its earliest stages, and his (or their) allocation to a travelling diagnostic Survey rather than to a localized district. This has been done in the case of the Cook Islands, with the result that most of their admissions are among our earliest cases.

In an attempt to impress on the various communities the vital importance of early treatment of leprosy and to let them see for themselves something of the routine as well as of the lighter side of Makogai life, the Medical Superintendent took with him a series of 16 mm. movie films, mainly in colour, when he visited Samoa, Tonga, and Niue Island during the year. The pictures were shown twice each in Apia and in Nukualofa, as well as in Vavau and on Niue Island. Whether the hope of breaking down any reluctance to submit to early treatment is to be fulfilled or not will be revealed by future admissions, but there was no question as to the general appreciation of the Makogai pictures, and of the work done here.

TABLE III—DEATHS.

	N–1.	N–2.	N–3.	L–1.	L–2.	L–3.	Totals.
Fijian	2	....	....	1	....	1	4
Indian	1	1	1	....	5	1	9
Solomon Islanders ..	1	1	....	....	....	2	4
Rotuman	....	....	....	....	1	....	1
Gilbert Islanders	....	....	....	....	3	2	5
Totals ..	4	2	1	1	9	6	23

Twenty-three patients died during the year, of whom 15 had been classified as Lepromatous–2 or Lepromatous–3 cases. Only six, however, of the deaths were directly attributed to leprosy, and one to Septic absorption secondary to leprosy. Eight deaths were due to Tuberculosis, all but one pulmonary; five deaths to Nephritis, little if at all affected by the leprotic condition; two to cerebral Thrombosis and one to Carcinoma of the bowel.

TABLE IV—DISCHARGES.

	N–1.	N–2.	L–1.	L–2.	Totals.
European	....	....	....	1	1
Fijian	6	6	1	2	15
Solomon Islanders	1	....	....	....	1
Indian	3	5	....	2	10
Cook Islanders	1	....	....	....	1
Gilbert Islanders	2	....	....	....	2
Totals ..	13	11	1	5	30

As might be expected, most of the discharged patients were early, or only moderately advanced, Neural cases—24 of the 30 patients discharged during the year being classified as Neural–1 or Neural–2.

From the racial point of view, the main point of interest, owing to the closeness of their numbers in the general population of Fiji, is the relative progress among Fijians and Indians. Although, as already pointed out, there are more than twice as many Indian patients as Fijian, 15 Fijian patients were discharged as against only 10 Indians. These are, however, figures for a single year only, and checking on the past ten years it is found that 106 Fijians and 145 Indians have been discharged since 1937. On the other hand, during the past four years, the annual discharges of Indians have only once exceeded those of Fijians, and the respective totals of discharges for the 4–year period are 63 for Fijians, and 58 for Indians—this in spite of the 1 : 2 ratio of Fijian patients to Indian.

NATIONALITY, TYPE OF DISEASE, AND PROGRESS.

In the following three Tables, all inmates at the end of the year, with the exception of those admitted during the second half, are recorded from the point of view of nationality, type of disease, and progress during the year. To give a true picture of actual progress, the numbers of those discharged and dead during the year have been added to Table VI and VII.

TABLE V.

*	N–1.		N–2.		N–3.		L–1.		L–2.		L–3.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
European	...	...	1	...	...	...	...	...	3	...	...	...	4	..	4
Euronesian	...	...	2	2	...	...	2	...	6	4	...	1	10	7	17
Fijian	7	6	21	23	3	2	4	1	32	14	4	4	71	50	121
Indian	10	6	40	13	1	2	21	3	100	32	4	4	176	60	236
Solomon Islanders ..	...	1	10	1	...	...	...	2	8	1	1	1	19	6	25
Rotuman	...	...	1	...	...	...	...	...	1	3	1	1	3	4	7
Chinese	...	...	2	...	...	...	...	...	3	...	1	...	6	..	6
Gilbert Islanders ..	3	1	9	1	1	...	2	...	23	4	16	4	54	10	64
Cook Islanders	11	11	8	3	...	...	2	1	5	7	8	2	34	24	58
Samoan	2	...	7	3	...	...	5	4	9	9	5	2	28	18	46
Tongan	1	...	6	5	3	1	1	...	4	2	1	2	16	10	26
Niue Islanders	1	...	...	...	...	...	...	...	2	2	1	...	4	2	6
	35	25	107	51	8	5	37	11	196	78	42	21	425	191	616
Totals ..	60		158		13		48		274		63		616		

TABLE VI.

	European.		Euronesian.		Fijian.		Indian.		Solomon Is.		Chinese.		Rotuman.		Gilbert Is.		Cook Is.		Samoan		Tongan.		Niue. Is.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Arrested	..	..	..	..	4	7	5	6	1	1	..	..	..	..	2	1	4	6	..	..	..	..	..	..	16	21	37
Quiescent	..	..	..	..	14	6	46	17	3	1	1	..	..	..	5	1	5	7	1	3	3	2	..	..	78	37	115
Improved	1	..	6	1	14	17	66	20	7	..	2	..	1	2	18	3	11	6	6	4	10	2	2	..	144	55	199
Stationary	2	..	2	4	28	14	37	9	6	2	3	..	1	1	24	2	11	5	17	9	3	2	1	1	135	49	184
Worse	1	..	2	2	11	6	22	8	2	2	..	..	1	1	5	3	3	..	4	2	..	4	1	1	52	29	81
Totals ..	4	..	10	7	71	50	176	60	19	6	6	..	3	4	54	10	34	24	28	18	16	10	4	2	425	191	616
	4		17		121		236		25		6		7		64		58		46		26		6		616		
Discharged ..	..	1	..	..	9	6	7	3	1	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	19	11	30
Died	..	..	..	..	3	1	8	1	3	1	..	..	1	..	3	2	..	..	..	..	..	..	..	..	18	5	23
Totals ..	4	1	10	7	83	57	191	64	23	7	6	..	4	4	58	13	35	24	28	18	16	10	4	2	462	207	669
	5		17		140		255		30		6		8		71		59		46		26		6		669		

TABLE VII.

	Arrested.	Quiescent.	Improved.	Station.	Worse.	Total.	Discharged.	Died.	Final Totals.
Neural–1 ..	9	32	7	10	2	60	13	4	77
Neural–2 ..	20	52	46	36	4	158	11	2	171
Neural–3 ..	5	3	2	2	1	13	....	1	14
Lepromatous–1 ..	....	8	20	16	4	48	1	1	50
Lepromatous–2 ..	3	20	103	89	59	274	5	9	288
Lepromatous–3 ..	....	....	21	31	11	63	....	6	69
Totals ..	37	115	199	184	81	616	30	23	669

The incomparably better outlook in the early Neural cases and the fairly regular gradation leading up to the very advanced Lepromatous cases, is well seen in the following Table of Percentages. For this purpose the progress classification is reduced to:—

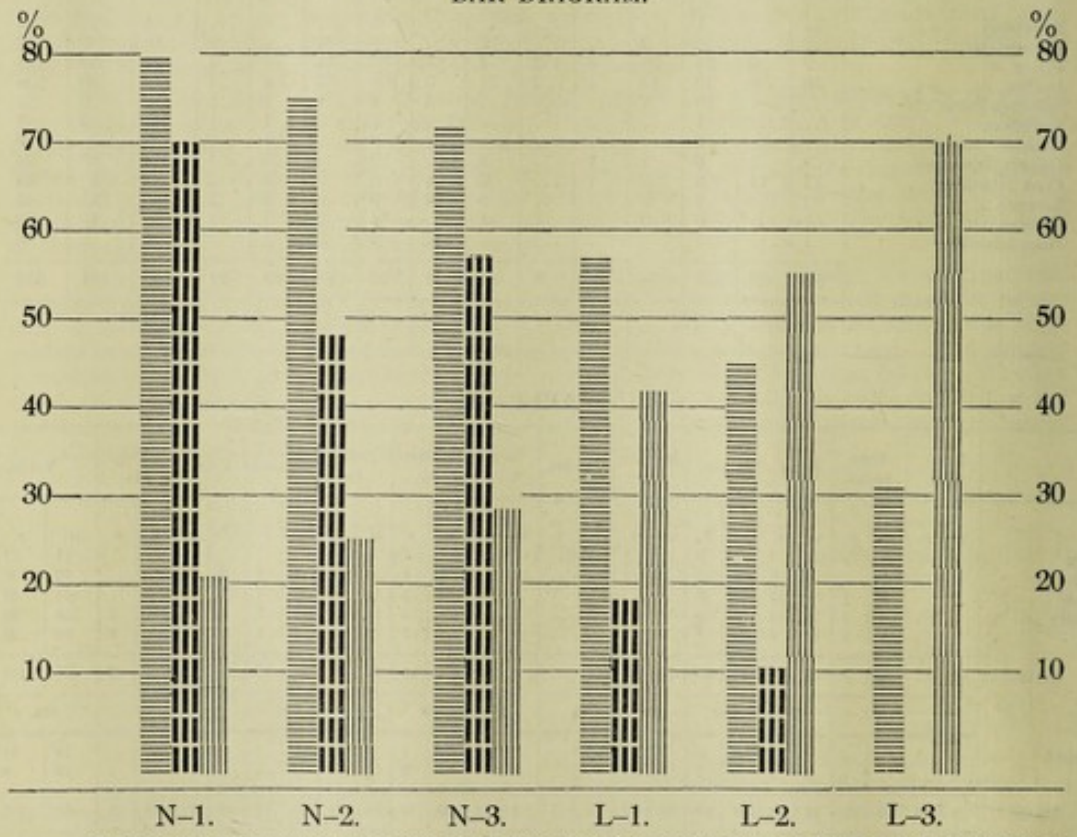
(1) "Improved", including all those classified in the Tables as Discharged, Arrested Quiescent and Improved,
(2) "Inactive", including the Discharged, Arrested and Quiescent only, and,
(3) "Stationary or Worse", which also includes the recorded deaths.

TABLE VIII—PROGRESS PERCENTAGES.

	N–1.	N–2.	N–3.	L–1.	L–2.	L–3.	Totals.
Per cent Improved	79·2	75·4	71·4	58	45·5	30·4	57·0
Per cent Inactive	70·1	48·5	57·1	18	9·7	....	27·2
Per cent Stationary or Worse ..	20·7	24·5	28·6	42	54·5	69·5	43·05

The gradation of these percentages is perhaps better demonstrated in the accompanying Bar Diagram. The only break in the sequence is shown by the Neural–3 "Inactive" bar. This is due to the presence of a few crippled "Burnt-out" cases, retained at Makogai because of chronic trophic ulceration completely unconnected with any leprotic activity. It is hardly necessary to point out how these figures stress once more the vital importance of early diagnosis, so that treatment may begin in the more amenable stages of the disease.

BAR DIAGRAM.



(Horizontal light equals percentage of "improved cases"; vertical bold equals percentage of "inactive" cases; vertical light equals percentage of "stationary or worse" cases.)

TUBERCULOSIS.

Of the eight deaths attributed to Tuberculosis five were diagnosed for the first time during the year, one being a new admission. The fact, however, that four of our patients, who are under fairly close medical supervision can be diagnosed and die within the year, indicates the rapidity with which Tuberculosis extends in some cases. Even allowing for the possible debilitation and lowering of resistance due to leprosy, this emphasises the problem confronting Medical Officers throughout the Colony, when dealing with unsupervised natives who are unlikely to seek advice until symptoms are well advanced.

At the end of 1947 there remained 13 patients who had been confirmed by tuberculin tests, X-ray findings and/or sputum investigations, as also suffering from pulmonary Tuberculosis. These included three females and ten males, three of the latter appearing sufficiently quiescent to be allowed to live in modified isolation in their own villages. Four of the 13 are Gilbert Islanders, two are Indians, two Fijians, and one each Rotuman, Solomon Islander, Cook Islander and Tongan

Every effort is being made to anticipate symptoms by routine tuberculin testing and X-ray examinations, but the shortage of X-ray films and drugs has caused some delay. The large number of new patients to be X-rayed, moreover, as well as the necessary repetition of previously suspicious films, has left us in much the same position as at the beginning of the year, so far as former symptomless patients are concerned.

A total of 266 X-ray examinations were made during the year, of which 187 were of lung fields, and 79 of bony lesions, which necessarily bulk largely in leprosy practice.

MAKOGAI PRODUCE.

The following list summarises most of the items of food, etc., actually produced on Makogai during the year:—

Native vegetables (yams, taro, tapioca, etc.)	..	840,000 lb
Bread	..	99,858 lb
Beef	..	39,126 lb
Dripping	..	485 lb
Milk	..	5,657 gals.
Fowls	..	204
Eggs	..	4,457
Soap	..	9,535 lb

The native vegetables are produced by the patients themselves in their own gardens, and thus furnish them with the benefits of fresh air and healthy exercise as well as much more useful additions to their diet than the rice which would be the main alternative. The ten shillings per month which they receive as an encouragement in this direction enables them to supplement their diet in a small way from the Co-operative Store. Many of the patients rear ducks and fowls for their own use or private trading, and others indulge in fishing in the same way.

PUBLIC WORKS.

Shortage of materials has once again delayed our post-war programme of extensions and improvements, as well as the general maintenance of existing buildings, whose general air of shabbiness contrasts markedly with Makogai's pre-war reputation for cleanliness and smartness.

The only major work possible during the year was the erection of a new School building for the boys. This comprises three classrooms separated by sliding partitions, a locker room and a Recreation Room. The Director of Education was very complimentary on his visit of inspection, describing it as the best school of its size in Fiji. The Recreation Room and Locker Room were a further gift from the Lepers Trust Board of New Zealand, whose benefactions to Makogai are so well known, and who in addition presented a very roomy concrete Bulk Store to the patients as an annexe to their Co-operative Store.

In this connexion mention should be made of the new " Makogai Sub-Station " in Suva. Originally conceived by Dr. C. H. Thompson in 1933, and urged from Makogai as well as by subsequent Medical Officers of Health as a clearing centre for both new and discharged leprosy patients, this scheme is now nearing fruition. Here again are thanks due to the Lepers Trust Board who, when the scheme began to appear beyond our means, made a generous offer of £4,000 towards the " Rehabilitation Centre " for discharged patients, and so brought the proposal once again within the bounds of possibility. The Station will be staffed by two Makogai-trained Sisters, and possibly an Assistant Medical Practitioner working under the Medical Officer of Health, Suva, and will undoubtedly fulfil a long-felt need in easing the transfer of incoming and outgoing patients.

SOCIAL.

The most important social event of the year was the official opening by Sir Henry Scott, K.C., of the new Theatre for " Talkies ", stage plays, etc., erected in 1946 by the Lepers Trust Board. Other Members of the Board present at the opening were Dr. R. J. Snodgrass, Deputy Director of Medical Services, and Mr. W. E. Donovan, Acting Accountant-General and Secretary of the Fiji Board. Mr. P. J. Twomey, M.B.E., the enthusiastic Director and mainstay of the New Zealand Board, was unavoidably delayed, but paid us a visit a week or so later.

Among the large number of signatures in the Visitors' Book should be especially mentioned His Honour the Chief Justice, and Lady Seton; Dr. J. C. R. Buchanan, Inspector-General of the South Pacific Health Service; Dr. Ritchie, Director of Health, and Miss Lambie, Director of Nursing, New Zealand; Dr. Cruz-Coke, of the U.N. Mission to Samoa; Mr. Howard Hayden, Director of Education; Mr. J. B. Sidebotham, C.M.G., of the Colonial Office; Mr. C. Nettleton, Government Architect and others.

While no report on work at Makogai would be complete without a tribute to the untiring devotion of our staff of Nursing Sisters, their work is so well known that any further words of commendation would seem almost an impertinence. The only appropriate comment appears to be that their work is truly " beyond praise ", and it was surely of such that Blake wrote—

" For Mercy has a human heart,
Pity a human face,
And Love the human form divine,
And Peace the human dress ".

C. J. AUSTIN,
Medical Superintendent, Makogai.

SUMMARY OF STATISTICS, 1911–47.

	Europeans.	Eurones ians.	Solomon Islanders.	Fijians.	Indians.	Rotumans.	Chinese.	Samoans.	Niue Islanders.	Cook Islanders.	Tongans.	Gilbert Islanders.	Maoris.	Totals.
Admissions ..	20	44	207	798	1,222	98	25	102	15	244	55	157	4	2,991
Repatriations ..	1	..	..	..	435	..	..	..	..	..	..	..	..	436
Discharges ..	5	12	63	317	244	56	4	21	2	114	6	24	1	869
Deaths	10	13	119	359	276	35	15	25	5	65	14	44	3	983
Totals of Present Inmates ..	4	19	25	122	267	7	6	56	8	65	35	89	..	703

1947.

1947.	Injections.									Dressings.	Patients dressed.	Operations.	X-ray.	Laboratory Examination.				Visitors.
	Chaul. Oil.	Salvarsan.	Dil-esters.	Fluores.	Vitamin B1.	Penicilin.	O.T.	Various injec.	Total.					Urine analyses.	Bact. exam.	Helminths.	Total	
January	1,541	3	3	25	35	30	...	110	1,747	8,514	3,960	1	19	9	53	14	76	12
February	1,667	3	22	8	30	10	...	61	1,801	7,024	3,616	4	17	15	68	20	103	5
March	1,105	3	17	...	44	5	....	80	1,254	7,542	3,672	3	40	16	89	18	123	8
April	697	12	10	...	19	10	27	118	893	9,866	4,392	4	12	5	137	20	162	9
May	1,654	5	28	16	38	35	66	114	1,956	10,260	4,608	2	18	15	78	29	122	11
June	1,185	3	16	22	19	80	...	52	1,377	9,639	3,961	3	12	12	124	55	191	4
July	2,374	7	13	39	34	35	...	104	2,606	11,214	4,894	9	16	16	131	62	209	13
August	1,837	8	15	20	51	10	...	65	2,006	11,526	4,794	1	15	10	72	35	117	11
September	1,798	7	26	10	47	92	52	127	2,159	12,096	4,816	3	29	21	103	34	158	12
October	2,082	27	7	31	36	57	55	114	2,409	11,407	4,573	5	36	22	92	21	135	7
November	1,596	36	...	35	17	90	...	160	1,934	9,962	4,454	...	31	38	82	15	135	5
December	832	29	5	19	20	54	...	247	1,206	14,004	5,040	1	21	110	83	27	220	21
Totals ..	18,368	143	162	225	390	508	200	1,352	21,348	123,054	52,780	36	266	289	1,112	350	1,751	118

RAINFALL 1947, MAKOGAI.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
3·40	6·30	16·28	3·60	5·28	5·06	3·48	3·69	6·98	1·65	3·52	9·33	68·57

APPENDIX VII.

Diseases which did not occur are not listed.

Return of Diseases and Deaths for the year 1947, at the Colonial War Memorial Hospital, Labasa, Lautoka, Levuka and Tamavua Hospitals.

NOTE.—This classification is based on the International List of Causes of Death, 1929.

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
I—INFECTIOUS AND PARASITIC DISEASES.						
Typhoid Fever	2	23	18	2	45	13
Paratyphoid Fever	..	..	..	..	...	..
Typhus	..	..	..	..	...	..
Relapsing Fever	..	..	..	..	...	
Undulant Fever	..	1	..	..	1	..
Smallpox (Variola)	..	..	..	..	...	..
Measles	..	..	..	..	...	..
Scarlet Fever	..	..	..	..	...	..
Whooping Cough	..	..	..	..	...	..
Diphtheria	1	1	1	..	3	..
Influenza	5	83	153	13	254	..
Cholera	..	..	..	..	...	..
Dysentery—						
(*a*) Amœbic	23	34	32	13	102	..
(*b*) Bacillary	6	21	121	6	154	3
(*c*) Mixed	..	..	2	..	2	..
(*d*) Undefined or due to other causes	..	15	38	3	56	3
Plague	..	..	..	..	...	..
Erysipelas	..	..	1	1	2	..
Acute Poliomyelitis or polioencephalitis	..	..	..	..	...	..
Encephalitis Lethargica	..	..	..	..	...	..
Cerebro-spinal Fever	..	..	1	..	1	1
Glanders	..	..	..	..	...	..
Anthrax	..	..	..	..	...	..
Rabies	..	..	..	..	...	..
Tetanus—						
(*a*) Of the new born	..	..	1	..	1	..
(*b*) Other forms	..	13	6	..	19	11
Tuberculosis of the Respiratory system	23	284	96	22	425	110
Tuberculosis of the Central Nervous system	..	3	1	1	5	5
Tuberculosis of the Intestines or Peritoneum	..	13	4	..	17	3
Tuberculosis of the Vertebral column	..	5	2	1	8	1
Tuberculosis of other Bones and Joints	1	19	7	1	28	..
Tuberculosis of the Skin or Subcutaneous tissue (Lupus)	..	1	1	..	2	..
Tuberculosis of the Lymphatic system	..	11	2	1	14	1
Tuberculosis of the Genito-urinary system	..	..	..	1	1	..
Tuberculosis of other organs	..	1	..	..	1	..
Tuberculosis disseminated	..	8	3	1	12	3
Leprosy	..	16	33	3	52	..
Syphilis—						
(*a*) Primary	3	..	26	2	31	..
(*b*) Secondary	5	..	11	..	16	..
(*c*) Tertiary	2	..	12	2	16	..
(*d*) Congenital	1	2	1	..	4	..
Other Veneral Diseases—						
(*a*) Soft Chancre	..	..	2	..	2	..
(*b*) Gonorrhœa	19	33	71	16	139	..
(*c*) Gonorrhœal Ophthalmia	..	2	6	..	8	..
(*d*) Other Gonorrhœal complications	..	8	5	2	15	..
(*e*) Granuloma Venereum	..	..	..	..	...	..
(*f*) Tropical bubo (Lymphogranuloma Inguinale)	..	..	..	..	...	..
(*g*) Mixed Venereal infections	2	3	..	2	7	..
Purulent Infection—						
(*a*) Septicæmia	..	3	..	2	5	1
(*b*) Pyæmia	..	1	..	..	1	..
(*c*) Gas Gangrene	..	1	..	..	1	..
Yellow Fever	..	..	..	..	...	..
Malaria—						
(*a*) Benign Tertian	..	4	..	..	4	..
(*b*) Quartan	..	1	..	..	1	..
(*c*) Sub-Tertian	..	1	..	1	2	..
(*d*) Mixed	..	3	..	2	5	..
Carried forward	93	614	657	98	1462	155

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
Brought forward	93	614	657	98	1462	155
Other Diseases due to Protozoa—						
(*a*) Framboesia (Yaws)	..	64	1	5	70	..
(*b*) Spirochætosis Icterohæmorrhagica	..	1	..	..	1	..
Ankylostomiasis	6	25	88	12	131	..
Hydatid cysts	..	..	2	..	2	..
Other diseases due to Helminths—						
(*a*) Ascariasis	1	13	36	5	55	1
(*b*) Filariasis	1	38	7	6	52	..
(*c*) Tæniasis	1	..	1	1	3	..
(*d*) Oxyuris Vermicularis	..	..	..	..	...	..
(*e*) Others	..	3	..	1	4	..
Mycoses (excluding purely dermal mycoses)—						
(*a*) Actinomycosis	..	..	..	..	...	..
(*b*) Others including sprue	..	..	..	..	...	..
Other infectious or parasitic diseases—						
(*a*) Vaccinia (Cowpox)	1	..	..	..	1	..
(*b*) Other sequelae of vaccination	6	..	..	..	6	..
(*c*) German measles (Rubella)	4	..	1	..	5	..
(*d*) Chicken-pox (Varicella)	3	6	1	1	11	..
(*e*) Mumps and its complications	6	16	31	18	71	..
(*f*) Dengue	16	39	30	4	89	..
(*g*) Glandular Fever	..	..	..	..	...	..
(*h*) Others	..	1	1	..	2	..
Total	138	820	856	151	1965	156
II—CANCER AND OTHER TUMOURS.						
Cancer or other malignant diseases of the buccal cavity, pharynx and œsophagus	2	..	1	..	3	1
Cancer or other malignant tumours of the digestive organs and peritoneum—						
(*a*) Stomach	2	6	9	..	17	8
(*b*) Liver and biliary passages	..	..	1	..	2	1
(*c*) Rectum	2	..	..	..	1	1
(*d*) Others	..	1	3	..	4	2
Cancer or other malignant tumours of the respiratory organs	..	..	2	..	2	1
Cancer or other malignant tumours of the uterus	2	3	13	2	20	2
Cancer or other malignant tumours of other female genital organs	..	1	2	..	3	..
Cancer or other malignant tumours of the breast	..	2	2	..	4	..
Cancer or other malignant tumours of the male genito-urinary organs	..	4	4	..	8	..
Cancer or other malignant tumours of the skin	14	..	1	1	16	1
Cancer or other malignant tumours of organs not specified	1	1	4	3	9	3
Non-malignant tumours—						
(*a*) Female genital organs	1	3	11	1	16	..
(*b*) Other sites	2	7	11	3	23	..
Tumours of undetermined nature—						
(*a*) Female genital organs	..	..	..	..	...	..
(*b*) Other sites	..	..	1	1	2	..
Total	26	28	65	11	130	20
III—RHEUMATISM, DISEASES OF NUTRITION AND OF ENDOCRINE GLANDS AND OTHER GENERAL DISEASES.						
Rheumatic Fever—						
(*a*) With cardiac involvement	..	2	23	..	25	6
(*b*) Without cardiac involvement	..	11	37	1	49	..
(*c*) Subacute Rheumatism	..	4	24	2	30	..
Carried forward	..	17	84	3	104	6

APPENDIX VII—*continued.*

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
Brought forward	..	17	84	3	104	6
Rheumatism and non-Suppurative arthritis—						
(*a*) Chronic Rheumatism ..	2	5	21	1	29	..
(*b*) Rheumatoid Arthritis ..	1	2	5	1	9	..
(*c*) Osteo-arthritis	..	..	1	..	1	..
Gout	2	..	1	..	3	..
Diabetes Mellitus	10	9	105	5	129	9
Scurvy	..	1	2	..	3	..
Beri-beri including epidemic dropsy	..	..	..	..	...	..
Pellagra	..	..	..	..	...	..
Rickets	..	..	..	..	...	..
Other diseases due to hypovitaminosis	..	..	9	..	9	..
Diseases of the pituitary gland ..	..	..	..	..	...	..
Diseases of the thyroid and parathyroid glands—						
(*a*) Simple goitre	..	1	6	..	7	..
(*b*) Exophthalmic goitre ..	4	1	..	..	5	..
(*c*) Myxœdema, cretinism ..	..	..	..	..	...	..
(*d*) Tetany	..	..	..	..	...	..
(*e*) Others	1	1	3	1	6	..
Diseases of the Thymus	..	..	..	..	...	..
Diseases of the adrenal glands excluding tuberculosis	..	..	..	..	...	..
Other general diseases	..	5	3	..	8	..
Total	20	42	240	11	313	15
IV—Diseases of Blood and Blood-forming Organs.						
Hæmorrhagic conditions—						
(*a*) Purpura	..	..	1	..	1	1
(*b*) Hæmophilia	..	..	2	..	2	..
Anæmia—						
(*a*) Pernicious anæmia	1	..	2	..	3	..
(*b*) Splenic anæmia	..	..	..	..	...	..
(*c*) Chlorosis	..	..	4	..	4	..
(*d*) Secondary anæmia	..	4	58	1	63	14
(*e*) Others	2	4	23	..	29	..
Lukæmia, Aleukæmia—						
(*a*) Chronic myeloid leukæmia ..	..	..	..	..	...	..
(*b*) Chronic lymphatic leukæmia	..	..	..	..	...	..
(*c*) Acute leukæmia	..	..	..	..	...	..
(*d*) Multiple myeloma	..	1	..	..	1	..
(*e*) Aleukæmia (lymphadenoma or Hodgkin's Disease) ..	..	..	..	..	...	..
Diseases of the spleen not elsewhere mentioned	..	..	..	1	1	..
Other diseases of the blood and blood-forming organs	..	..	1	..	1	..
Total	3	9	91	2	105	15
V—Chronic Poisoning.						
Alcoholism acute or chronic ..	..	1	..	..	1	..
Poisoning by other organic substances (not by violence)—						
(*a*) Opium habit	..	..	..	..	...	..
(*b*) Morphine habit	..	..	..	..	...	..
(*c*) Others	..	..	..	..	...	..
Poisoning by mineral substances (not by violence)—						
(*a*) Lead	..	..	..	..	...	..
(*b*) Others	..	..	4	..	4	..
Total	..	1	4	..	5	..
VI—Diseases of the Nervous System and Sense Organs.						
Encephalitis (not including encephalitis lethargica)—						
(*a*) Cerebral abscess	..	1	..	1	2	1
(*b*) Others	1	..	4	1	6	1
Meningitis (not including tuberculosis or meningococcal) ..	..	3	5	..	8	5
Tables Dorsalis (locomotor ataxis)	1	..	1	1	3	..
Carried forward	2	4	10	3	19	7

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
Brought forward	2	4	10	3	19	7
Other Diseases of the Spinal Cord—						
(*a*) Progressive muscular atrophy	..	..	..	..	...	..
(*b*) Subacute combined sclerosis ..	..	..	1	..	1	1
(*c*) Myelitis of unstated orgin ..	..	..	1	..	1	..
(*d*) Others	1	1	1	1	4	..
Cerebral hæmorrhage, Apoplexy, etc.—						
(*a*) Cerebral hæmorrhage ..	4	1	20	2	27	8
(*b*) Cerebral embolism & thrombosis	2	..	4	1	7	5
(*c*) Hemiplegia and other paralyses of unstated origin ..	..	7	20	1	28	2
General Paralysis of the Insane ..	..	..	..	..	...	..
Other forms of insanity—						
(*a*) Dementia Præcox	..	..	1	1	2	..
(*b*) Others	..	1	..	..	1	..
Epilepsy—						
(*a*) Major	3	2	5	1	11	..
(*b*) Minor	..	..	1	1	2	..
Infantile convulsions (under 5 yrs.)	..	3	2	2	7	..
Other diseases of the Nervous System—						
(*a*) Chorea	..	1	3	..	4	..
(*b*) Neuritis, neuralgia	1	1	7	..	9	..
(*c*) Paralysis Agitans	..	..	..	1	1	..
(*d*) Disseminated Sclerosis ..	..	..	..	..	...	..
(*e*) Neurasthenia	2	3	8	2	15	..
(*f*) Hysteria	1	1	13	..	15	..
(*g*) Others	2	5	5	2	14	..
Diseases of the eye—						
(*a*) Conjunctivitis	2	16	11	4	33	..
(*b*) Trachoma	4	11	10	6	31	..
(*c*) Corneal Ulcer	..	5	13	2	20	..
(*d*) Cataract	8	11	25	..	44	..
(*e*) Iritis	..	4	1	3	8	..
(*f*) Glaucoma	..	1	..	1	2	..
(*g*) Others	3	21	23	4	51	..
Diseases of the Ear and Mastoid Sinus—						
(*a*) Otitis externa	2	6	14	5	27	..
(*b*) Otitis media	1	10	8	3	22	..
(*c*) Mastoiditis	..	5	6	3	14	1
(*d*) Others	..	3	7	1	11	..
Total	38	123	220	50	431	24
VII—Diseases of the Circulatory System.						
Pericarditis	..	..	..	..	...	..
Acute endocarditis—						
(*a*) Malignant	..	..	2	..	2	1
(*b*) Others not included elsewhere	..	..	1	1	2	..
Chronic endocarditis, valvular disease (except specific cause elsewhere stated)—						
(*a*) Aortic valve	1	1	1	..	3	..
(*b*) Mitral valve	3	2	23	2	30	2
(*c*) Aortic and mitral valve ..	..	1	3	1	5	..
(*d*) Endocarditis not returned as acute or chronic	..	1	3	..	4	..
(*e*) Other or unspecified valve disease	..	1	8	1	10	3
Diseases of the myocardium (except due to specified cause stated elsewhere)—						
(*a*) Acute myocarditis	..	..	..	..	...	..
(*b*) Myocardial Degeneration ..	7	27	56	5	95	45
Diseases of the coronary arteries—						
(*a*) Angina Pectoris	1	..	1	..	2	..
(*b*) Coronary sclerosis and thrombosis and embolism	3	1	..	..	4	1
Other diseases of the heart (except due to specified cause stated elsewhere)—						
(*a*) Auricular fibrillation ..	2	..	1	..	3	..
(*b*) Heart block	..	..	..	..	...	..
(*c*) Disordered action of the heart	1	1	18	3	23	1
(*d*) Others	3	..	10	1	14	3
Carried forward	21	35	127	14	197	56

APPENDIX VII—*continued.*

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
Brought forward	21	35	127	14	197	56
Aneurysm (unless due to specified cause elsewhere stated)—						
(*a*) Aneurysm of aorta ..	..	..	..	..	...	..
(*b*) Of other arteries	..	..	..	..	...	..
Arteriosclerosis	..	2	4	1	7	1
Gangrene (other than gas gangrene)	1	..	..	..	1	..
Other diseases of the arterics ..	..	2	6	1	9	2
Diseases of the lymphatic system—						
(*a*) Lymphangitis	1	1	1	..	3	..
(*b*) Lymphadentis	3	5	10	4	22	1
Diseases of the Veins—						
(*a*) Varicose veins	2	..	1	1	4	..
(*b*) Hæmorrhoids..	3	..	15	7	25	..
(*c*) Phlebitis	..	1	2	1	4	..
(*d*) Thrombosis	1	1	1	1	4	..
(*e*) Others	..	..	2	..	2	..
Abnormalities of blood pressure—						
(*a*) High blood pressure.. ..	2	..	6	2	10	1
(*b*) Low blood pressure	..	1	1	..	2	..
Other diseases of the Circulatory System—						
(*a*) Epistaxis	..	..	..	..	...	..
(*b*) Others (including unexplained hæmorrhages)	..	..	..	..	...	..
Total	34	48	176	32	290	61
VIII—Diseases of the Respiratory System.						
Diseases of the nasal Fossæ and annexa—						
(*a*) Diseases of the nose ..	2	..	4	1	7	..
(*b*) Diseases of the accessory nasal sinuses	3	6	4	2	15	..
Diseases of the larynx—						
(*a*) Laryngismus Stridulus ..	..	..	1	..	1	..
(*b*) Laryngitis acute and chronic of non-specific aetiology ..	..	..	2	1	3	..
(*c*) Others	..	1	1	1	3	..
Bronchitis—						
(*a*) Acute	3	23	38	11	75	..
(*b*) Chronic	1	17	39	2	59	..
(*c*) Not defined as acute or chronic	4	35	27	10	76	..
Broncho-pneumonia	..	63	66	16	145	49
Lobar pneumonia	3	26	28	11	68	10
Pneumonia (not otherwise defined)	1	9	9	4	23	3
Pleurisy—						
(*a*) Empyema	..	4	1	..	5	1
(*b*) Other pleurisy	5	8	23	3	39	2
Congestion and hæmorrhagic infection of lung, etc.—						
(*a*) Hypostatic congestion of lung	1	..	2	..	3	1
(*b*) Massive collapse	..	..	1	..	1	1
(*c*) Pulmonary embolism ..	..	..	..	..	...	..
(*d*) Others	..	..	..	..	...	..
Asthma	7	31	154	7	199	4
Pulmonary Emphysema	..	..	..	..	...	..
Other diseases of the Respiratory System—						
(*a*) Chronic interstitial pneumonia (including occupational diseases of the lung) ..	..	..	..	..	...	..
(*b*) Gangrene of the lung ..	..	..	..	..	...	..
(*c*) Abscess of the lung	..	..	..	..	...	..
(*d*) Bronchiectasis	1	3	1	1	6	1
(*e*) Others	..	..	..	..	...	..
Total	31	226	401	70	728	72

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
IX—Diseases of the Digestive System.						
Diseases of the buccal cavity, pharynx, etc.—						
(*a*) Pyorrhœa and gingivitis ..	..	1	3	..	4	..
(*b*) Dental caries	6	7	25	2	40	..
(*c*) Stomatitis	..	2	5	2	9	..
(*d*) Vincent's Angina	..	..	..	..	...	..
(*e*) Ludwig's Angina	2	1	1	1	5	..
(*f*) Diseases of the tonsils ..	33	8	102	15	158	..
(*g*) Others including coryza, acute naso-pharyngitis, etc. ..	3	10	13	2	28	..
Diseases of the œsophagus ..	..	..	..	..	...	..
Ulcer of the stomach or duodenum—						
(*a*) Ulcer of the stomach ..	4	1	10	5	20	..
(*b*) Ulcer of the duodenum ..	4	3	8	..	15	2
Other diseases of the stomach—						
(*a*) Gastritis	5	20	96	5	126	..
(*b*) Others, e. g. functional dyspepsia	1	20	31	3	55	1
Diarrhœa and enteritis (under two years)	1	54	49	5	109	14
Diarrhœa and enterities (two years and over)—						
(*a*) Colitis	8	26	36	8	78	1
(*b*) Otherwise defined including gastro-enteritis	19	69	58	27	173	4
Appendicitis	12	19	190	16	237	4
Hernia, Intestinal Obstruction—						
(*a*) Hernia	3	10	34	10	57	..
(*b*) Strangulated Hernia ..	1	5	10	..	16	..
(*c*) Intestinal obstruction including intussussception	..	2	6	..	8	3
Other diseases of the intestines—						
(*a*) Constipation, intestinal stasis	8	9	19	1	37	..
(*b*) Diverticulosis and diverticulitis	1	2	1	..	4	..
(*c*) Diseases of rectum or anus ..	4	8	26	2	40	..
(*d*) Others, e.g. intestinal colic ..	5	6	18	3	32	..
Cirrhosis of the liver (non-syphilitic)						
(*a*) Alcoholic	..	1	2	..	3	..
(*b*) Not returned as alcoholic ..	1	..	1	1	3	1
Other diseases of the liver—						
(*a*) Acute Yellow Atrophy ..	..	..	..	..	...	..
(*b*) Toxic Hepatitis	..	2	..	..	2	..
(*c*) Amœbic abscess & Hepatitis	1	11	3	1	16	2
(*d*) Others	2	3	7	1	13	2
Biliary calculi or biliary colic ..	2	4	15	1	22	..
Other diseases of the gall-bladder and ducts—						
(*a*) Cholecystitis without record of calculi	3	3	22	5	33	..
(*b*) Others, e.g. catarrhal jaundice	..	..	4	..	4	..
Diseases of the pacreas (excluding Diabetes Mellitus)	..	..	1	..	1	1
Peritonitis without stated cause—						
(*a*) Acute	..	2	5	..	7	2
(*b*) Chronic	..	4	2	..	6	..
Total	129	313	803	116	1361	37
X—Diseases of the Genito-urinary System (non-venereal).						
Acute Nephritis	..	1	6	..	7	3
Chronic Nephritis	..	12	23	3	38	9
Nephritis (undefined as acute or chronic)	..	4	4	..	8	1
Other diseases of the Kidney and annexa—						
(*a*) Pyelitis	18	22	100	11	151	1
(*b*) Others..	5	1	10	..	16	1
Calculi of the urinary passages—	3	..	6	1	10	..
(*a*) Calculi of Kidney and ureter and renal colic	5	4	12	1	22	3
(*b*) Calculi of bladder and urethra	..	..	1	..	1	..
(*c*) Calculi of unstated site ..	..	1	..	..	1	..
Diseases of the Bladder—						
(*a*) Cystitis	4	3	23	..	30	..
(*b*) Others..	..	..	15	..	15	..
Carried forward	35	48	200	16	299	18

APPENDIX VII—*continued.*

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
Brought forward	35	48	200	16	299	18
Diseases of the urethra, urinary abscess, etc.—						
(*a*) Stricture	..	1	16	..	17	..
(*b*) Others	2	..	11	1	14	..
Diseases of the prostrate	1	1	21	2	25	..
Diseases of the male genital organs—						
(*a*) Phimosis	1	1	7	..	9	..
(*b*) Epididymitis (excluding tuberculosis)	..	1	4	..	5	..
(*c*) Orchitis	..	7	9	2	18	..
(*d*) Hydrocele	4	16	22	6	48	1
(*e*) Elephantiasis of the scrotum	..	3	..	..	3	..
(*f*) Others	2	6	17	1	26	..
Diseases of the female genital organs—						
(*a*) Diseases of the ovary ..	2	7	20	..	29	1
(*b*) Diseases of the Fallopian tube	4	6	40	1	51	..
(*c*) Diseases of the parametrium	..	..	2	..	2	..
(*d*) Diseases of the uterus including menorrhagia and dysmenorrhœa	12	11	74	14	111	1
(*e*) Diseases of the breast ..	1	11	7	3	22	..
(*f*) Others, e.g. prolapse ..	5	5	52	1	63	..
Total	69	124	502	47	742	21
XI—Diseases of Pregnancy, Childbirth and the Puerperal State.						
Post-abortive sepsis	..	4	4	..	8	1
Abortion not returned as septic ..	8	31	52	11	102	..
Ectopic gestation	3	4	4	2	13	..
Other accidents of pregnancy ..	4	15	26	5	50	2
Hæmorrhage connected with childbirth—						
(*a*) Placenta prævia	..	1	2	2	5	..
(*b*) Others	..	2	2	3	7	1
Puerperal Sepsis—						
(*a*) Puerperal septicæmia ..	3	..	1	2	6	..
(*b*) Puerperal sepsis not including septicæmia	..	3	14	4	21	1
Puerperal albuminuria and convulsions—						
(*a*) Eclampsia	..	2	6	..	8	2
(*b*) Albuminuria of pregnancy ..	1	2	9	..	12	1
(*c*) Pyelitis of pregnancy ..	..	3	4	..	7	..
(*d*) Others	..	..	2	..	2	..
Other Toxæmia of Pregnancy—						
(*a*) Hyperemesis Gravidarum ..	..	..	20	1	21	..
(*b*) Others	..	1	2	..	3	..
Puerperal phlegmasia, embolism and sudden death—						
(*a*) Puerperal phlegmasia alba dolens not returned as septic	..	..	1	..	1	..
(*b*) Puerperal embolism and sudden death	..	..	..	..	...	..
Conditions associated with labour—						
(*a*) Normal labour	11	31	180	16	238	1
(*b*) Abnormal labour, e.g. needing instrumental interference ..	1	2	15	1	19	1
(*c*) False labour	..	..	19	1	20	..
(*d*) Labour complicated by intercurrent disease	..	..	4	..	4	..
(*e*) Accidents of childbirth including still-births	..	4	31	1	36	..
Other or unspecified conditions of the puerperal state—						
(*a*) Puerperal insanity	..	..	2	..	2	..
(*b*) Puerperal diseases of the breast	..	..	..	..	...	..
(*c*) Not in labour	..	1	22	..	23	..
(*d*) Others	..	2	9	1	12	..
Total	31	108	431	50	620	10

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total.	Deaths.
XII—Diseases of the Skin and Cellular Tissues.						
Carbuncle, boil	14	33	24	13	84	2
Cellulitis, acute abscess (except due to cause given elsewhere)—						
(*a*) Cellulitis	11	76	61	12	160	1
(*b*) Acute abscess	16	128	183	41	368	1
Other diseases of the skin, hair and nails—						
(*a*) Ulcers	7	7	23	3	40	..
(*b*) Dermal mycoses	7	10	9	3	29	1
(*c*) Herpes including Zoster ..	4	3	7	4	18	..
(*d*) Scabies	1	11	2	4	18	..
(*e*) Others	14	19	57	4	94	..
Total	74	287	366	84	811	5
XIII—Diseases of the Bones and Organs of Locomotion.						
Acute or chronic infective osteomyelitis and periostitis except due to cause given elsewhere—						
(*a*) Acute Osteomyelitis ..	3	9	10	3	25	3
(*b*) Chronic Osteomyelitis ..	2	24	21	3	50	1
(*c*) Periostitis, acute or chronic	..	3	6	2	11	..
Other diseases of the bones ..	..	2	8	15	25	..
Diseases of the joints and other organs of locomotion—						
(*a*) Diseases of the joints (other than elsewhere stated) ..	6	15	23	3	47	..
(*b*) Diseases of the other organs of locomotion	4	5	1	..	10	..
Total	15	58	69	26	168	4
XIV—Congenital Malformations.						
Congenital malformations—						
(*a*) Congenital hydrocephalus ..	..	1	1	..	2	..
(*b*) Spina Bifida and Meningocele	..	..	1	..	1	1
(*c*) Congenital malformation of the heart	..	..	2	..	2	2
(*d*) Monstrosities	..	1	..	..	1	1
(*e*) Congenital hypertrophic pyloric stenosis	..	..	1	..	1	..
(*f*) Cleft palate, harelip ..	..	1	9	..	10	..
(*g*) Imperforate anus	..	1	5	1	7	2
(*h*) Other congenital malformations	..	9	16	..	25	1
Total	..	13	35	1	49	7
XV—Diseases of Early Infancy.						
Congenital debility including marasmus of unknown cause ..	..	13	10	1	24	8
Premature birth	..	..	11	1	12	9
Injury at birth	..	..	4	..	4	4
Other diseases peculiar to early infancy—						
(*a*) Atelectasis Pulmonum ..	..	..	..	..	...	..
(*b*) Icterus neonatorum—						
(1) Mild	..	..	2	1	3	..
(2) Grave	..	..	..	..	...	..
(*c*) Affections of the umbilicus ..	..	2	3	..	5	4
(*d*) Pemphigus neonatorum ..	..	..	2	..	2	..
(*e*) Others	..	8	5	3	16	5
Total	..	23	37	6	66	30
XVI—Conditions Associated with Old Age.						
Old age—						
(*a*) Senile Dementia	1	1	2	..	4	1
(*b*) Other forms of senile decay ..	1	..	5	..	6	..
Total	2	1	7	..	10	1

APPENDIX VII—*continued.*

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total	Deaths.
XVII—Affections Produced by External Causes.						
Suicide or attempted suicide by poisoning (including corrosive poisoning)	..	1	..	..	1	..
Suicide or attempted suicide by hanging or strangulation	..	..	3	..	3	..
Suicide or attempted suicide by drowning	..	..	..	..	...	..
Suicide or attempted suicide by firearms	..	..	..	..	...	..
Suicide or attempted suicide by cutting or piercing instruments	..	..	3	..	3	..
Suicide or attempted suicide by jumping from a height	..	..	..	..	...	..
Suicide or attempted suicide by crushing	..	..	..	..	...	..
Suicide or attempted suicide by other means	..	..	..	..	...	..
Infanticide	..	..	..	..	...	..
Assault or homicide by firearms	..	..	..	..	...	..
Assault or homicide by cutting or piercing instruments	..	2	13	..	15	..
Assault or homicide by other means	2	31	25	6	64	..
Attacks by venomous animals	..	6	3	1	10	..
Food poisoning	..	8	3	1	12	1
Accidental absorption of irrespirable or poisonous gases	..	..	..	..	...	..
Other acute accidental poisoning	2	2	8	2	14	..
Injuries due to conflagration	..	1	1	..	2	..
Accidental burns, conflagration excepted—						
(*a*) Burns by fire	5	14	18	2	39	4
(*b*) Scalds	2	13	12	3	30	2
(*c*) Burns by corrosive substances, external or internal	..	1	1	..	2	..
(*d*) Dermatitis due to exposure to sun	..	..	..	..	...	..
(*e*) Dermatitis due to exposure to other forms of radiation	..	..	..	..	...	..
Accidental mechanical suffocation	..	..	..	..	...	..
Accidental immersion or drowning	..	..	..	..	...	..
Accidental injury by firearms	..	..	..	..	...	..
Accidental injury by cutting or piercing instruments	2	78	70	18	168	..
Accidental injury by fall, crushing, etc.—						
(*a*) By falling	24	83	121	30	258	..
(*b*) By machinery	2	7	9	3	21	..
(*c*) By motor vehicles	17	16	31	11	75	2
(*d*) By railway vehicles	..	1	3	..	4	..
(*e*) By other means	6	47	40	11	104	2
Carried forward	62	311	364	88	825	11

Diseases.	Europeans.	Fijians.	Indians.	Others.	Total	Deaths.
Brought forward	62	311	364	88	825	11
Cataclysm (Tidal waves, cyclones, volcanoes, etc.)	..	..	..	..	...	..
Injury by animals (except bites or stings of venomous reptiles or insects)	..	9	22	1	32	..
Hunger or thirst	..	..	..	..	...	..
Excessive cold	..	..	..	..	...	..
Excessive heat	..	..	..	..	...	..
Lightning	..	..	..	..	...	..
Electricity	..	..	1	..	1	..
Other unstated forms of violence—						
(*a*) Inattention at birth	..	..	..	..	...	..
(*b*) Others, e.g. foreign body swallowed	..	2	3	1	6	..
Violence of an unstated nature, i.e. suicidal, accidental homicidal by poisoning or other means	..	..	2	..	2	..
Wounds or other injuries of war	..	..	..	..	...	..
Execution of civilians by belligerent armies	..	..	..	..	...	..
Execution	..	..	..	..	...	..
Total	62	322	392	90	866	11
XVIII—Ill-defined Conditions.						
Sudden death, cause unknown	..	..	..	..	...	..
Cause of illness unstated or ill-defined	26	60	118	19	223	..
Diseases not included in this classification elsewhere	16	20	50	11	97	1
Malingering	..	..	4	..	4	..
Cases admitted to hospital for observation as to mental condition	..	1	3	3	7	..
Cases admitted for observation not mental	40	91	232	20	383	1
Persons accompanying patients	12	142	241	20	415	..
Orphans	..	..	1	..	1	..
Total	94	314	649	73	1130	2
Grand Total	766	2860	5344	820	9790	491

APPENDIX VIII.

CENTRAL MEDICAL SCHOOL, FIJI.

(ANNUAL REPORT, 1947.)

I—STUDENTS.

The year 1947 commenced with 48 students in residence, and the following table shows the wide racial distribution found amongst them.

	1st. year.	2nd. year.	3rd. year.	4th year.	Total.
Fiji—Fijians	4	..	3	5	12
Rotumans	1	..	1	..	2
Indians	1	..	1	2	4
Western Samoa	3	..	4	1	8
Tonga	..	..	2	1	3
Cook Islands	1	..	2	..	3
Gilbert and Ellice Islands ..	2	..	2	1	5
British Solomon Islands ..	1	..	1	..	2
New Hebrides	..	..	..	1	1
Niue Island	2	..	..	..	2
Papua–New Guinea	6	..	..	..	6
	21	..	16	11	48

The inclusion of six students from Papua–New Guinea marked a new venture, since previously the Australian authorities had taken their Papuan medical students to Sydney for a short course of training at the School of Tropical Medicine. The need for a fuller course in an appropriate environment has been recognized, and a medical school on the lines of this one is to be established in Papua. It was unfortunate that the careers of the students sent to Fiji could not be plain sailing. During the course of routine medical examination one of them was found to be suffering from pulmonary tuberculosis, and with the approval of the Administration at Port Moresby he was sent to the Tuberculosis Hospital at Tamavua, where his condition has improved greatly, and he is expected to be able to return to the Medical School in 1949. The remaining five were found to be so far below the rest of their class in general education that they were unable to keep pace with the work, and they were sent to Queen Victoria School for further groundwork. They will return to the Medical School during the course of the next three years. They were all good boys, and popular with the other students.

For the latter half of the year, there have thus been 42 students in residence.

The Papua–New Guinea students do not form Australia's first contact with the Central Medical School. Students from Nauru have attended the School, and others are expected shortly. There is also a possibility that two Australian Aboriginal Students will seek admittance.

II—STAFF.

After 19 years in charge of the Central Medical School, Dr. D. W. Hoodless retired at the end of 1946. To the gratification of all, the worth of his work was recognized by His Majesty the King in the conferring of the award of O.B.E. The real monument to Dr. Hoodless's work, however, is to be found in the record of the Assistant Medical Practitioner Service over the length and breadth of the South-West Pacific. Few men can look back on such achievement, and Dr. Hoodless retires secure in the knowledge that a wide circle of friends of all colour and creed wish him well.

The new Principal has been the only full-time officer of the School during 1947. In November, the Legislative Council approved the appointment of an Assistant Principal, and it is hoped that within the course of the next year or two a medical officer will be found for this position.

The Principal lectured to the junior students in the science subjects, and in Anatomy and Physiology. The rest of the syllabus has been covered by 12 honorary lecturers as follows:—

Medicine	Dr. G. T. Barnes.
Surgery	Mr. K. J. Gilchrist.
Obstetrics	Dr. D. J. Oldmeadow.
Forensic Medicine	Dr. G. T. Barnes.
Diseases of Children ..	Dr. P. W. J. Searle.
Public Health	Dr. J. Taylor, Mr. D. W. Amos and Health Office Staff.
Dentistry	Ratu I. L. Vosailagi.
Ophthalmology	Dr. A. H. Sahu Khan.
Materia Medica	Mrs. N. Corbett.

The thanks of the Advisory Board and of the School are due to these lecturers who have so generously given of their time.

III—HEALTH.

Sixteen students went down with mumps during the year, involving a loss of 222 days. Another 152 days were lost by 19 students with afflictions ranging from pneumonia and dysentery to various football injuries. Apart from the one case of pneumonia and several cases of mumps which developed complications, there was nothing to cause undue worry, and all sick students recovered completely.

The one student excluded from the above figures was John Davai of Papua, who was found within a few weeks to be suffering from pulmonary tuberculosis and was sent immediately to the Tamavua Hospital.

IV—DISCIPLINE.

At its final meeting of the year, the Central Medical School Advisory Board found it necessary to suspend a third year Indian student and to recommend his dismissal from the School. The dismissal was later confirmed by the Governor.

A case of immorality on the part of a Fijian first year student was brought before the Board at an earlier meeting. The Board took a serious view of the matter, and ruled that any further case of similar nature must be met by expulsion.

Other breaches of discipline have been " standard ", and of no special consequence.

V—EXAMINATIONS.

Fourth Year.—Of the 11 students who sat their finals, four failed to pass in all subjects. They will be required to sit supplemetnary examinations at the end of the first quarter of 1948. Two students failed in Diseases of Children, two in Medicine and one in Surgery. One student failed in two subjects.

Third Year.—The record of this class during the year has not been good. In a total of 226 examinations sat, there have been 86 failures, and in the four quarterly examinations the class average has been 58, 56, 65, 65. (60 per cent is a pass). A better record is expected next year.

First Year.—As already reported, the Papuan students were unable to cope with the work, and during the year were sent to the Queen Victoria School. The remaining students gave a good account of themselves, all completed their science course, and after three failures in the first quarter in anatomy and physiology, all passed their second quarter in these subjects.

Gold Medals.

Mr. Alport Barker's Medal for Medicine	T. A. Babiyau
B.M.A. (Fiji Branch) Medal for Surgery	Ram Singh
Sir Maynard Hedstrom's Medal for Public Health	A. N. Naqasima

Sir Henry Scott's Medal for Anatomy was not awarded as there was no class qualifying in that in 1947.

Dr. A. H. B. Pearce's Medal for Obstetrics, and the N.M.P. Ielu Medal for Diseases of Children, both of which are restricted to Fijian students were not awarded, since in both subjects there was no Fijian with the requisite 80 per cent.

Prize List.

First Year—	
Second place in Anatomy	G. P. Zoleveke of Solomon Islands
Equal first in Biology	F. P. Taukave of Rotuma
Second in Physics	
First in Chemistry	Semisi Ma'ia'i of Samoa
Equal first in Biology	
Second in Physiology	
First in Anatomy	
Second place in Chemistry	Joeli V. Taoi of Fiji
First place in Physics	
First place in Physiology	
Third Year—	
Second place in Medicine	F. T. Panapasa of Rotuma
Equal second in Ophthalmology	
First place in Forensic Medicine	Opeti Lutui of Tonga
Second place in Surgery	
Equal second in Ophthalmology	
First place in Medicine	Leopino Foliaki of Tonga
First place in Surgery	
First place in Materia Medica	
First place in Ophthalmology	
Second place in Forensic Medicine	
Fourth Year—	
Second place in Surgery	S. G. Seruvatu
Head Student	
First place in Obstetrics	Penisimani Latuselu of Tonga
Head Student	
First place in Public Health	A. N. Naqasima
First place in Medicine	T. A. Babiyau
First place in Surgery	Ram Singh
First place in Diseases of Children	
Second place in Medicine	
Second place in Obstetrics	

RECREATION.

During the football season all students have full opportunity to leave their books for an hour or two and indulge in strenuous exercise. The Rugby XV had a fair season, though they were not able to retain the Championship shield. In the newly inaugurated seven-a-side competition they were successful and brought home the trophy.

There have been sufficient followers of the Association football amongst the students to form a team, and several friendly matches have been played. The team did not enter the competition.

Two teams entered the Table Tennis competition, but after a couple of months it was decided to withdraw them, since the competition was proving a lengthy one, and the night a week was more than the students could afford to spare.

As the final examinations drew near it was obvious that the students were not getting enough exercise. Cricket, unfortunately, has not been popular recently, but it is hoped to form a team again, and provide this exercise throughout the summer months. The playground is not ideal for cricket, and this has proved a deterrent. A " deck tennis " set was procured in November, and proved very popular. A gymnasium and swimming bath are almost necessary adjuncts to such a school as this, and one looks forward to the day when they can be provided.

A students' common room, with magazines and other reading is another want, and one of the army huts is now being used as a makeshift.

The debating club which was successful in the past has lapsed this year, but will be revived. Voluntary mid-week services were held during the middle quarters and were well attended. They were organized by the Suva clergy who took turns to conduct the meetings, and the innovation is regarded as successful and valuable. Other speakers addressed the students—Mr. Gittins on " Census Figures " and Mr. B. V. Parham on " Co-operative work in the Community ". The thanks of the school are due to all these persons who have helped with these important extra-curricular studies. The entire school paid a visit to the Colonial Sugar Refining Company's mill at Nausori, and were courteously conducted over the plant. The position of the Assistant Medical Practitioner in his village is such that the widest possible training should be given him as a student, provided always, of course, that the supreme importance of his medical studies is not allowed to be forgotten.

ACADEMIC BOARD.

At a meeting of the Central Medical School Advisory Board held on the 17th April it was resolved that a permanent Academic Board should be appointed, whose function would be to advise on all academic and technical aspects of teaching in the Central Medical School.

Arising from the discussions of the Academic Board a slight revision of the curriculum has been recommended, greater emphasis being laid on practical work and the preventive aspects of medicine. It was decided that instead of dropping one year in four as has been the custom, students should be admitted each year.

As a general matter of policy it has been accepted that the Principal should not be confined to the School itself, but should supervise the work of the students in the hospital wards. In this way a greater measure of continuity can be obtained, with the preclinical subjects and hospital work brought into proper correlation. This will be made possible when an Assistant Principal is appointed.

BUILDINGS.

An old army hut has been painted and fitted with blackboard and platform, and now serves as a third lecture-room. It is in use each afternoon for the senior students.

The facilities of both school and hostel are fewer than they should be, and when the long-planned rebuilding does eventuate, conditions will be greatly improved. There is insufficient room just now for a class in science or in clinical biochemistry to do effective laboratory work, although the practical side of these studies should loom large.

GRADUATION CEREMONY.

During the latter war years the practice of holding the Graduation Ceremony in the Legislative Council Chambers was discontinued. This year, however, it was reintroduced, and the ceremony held on the 19th December was a successful one. Certificates were presented by His Excellency the Acting Governor to the following new graduates:—

Ram Singh	Fiji
Penisimani Latuselu	Tonga
Semesa Gucake Seruvatu	Fiji
Tevita Alatini Babiyau	Fiji
Kanhaiya Lal	Fiji
Puta Tofinga	Ellice Islands
Tapu Leota	Samoa

Class prizes were also presented, the Director of Medical Services addressed the students, and the Principal administered the Oath of Hippocrates (modified) to the graduates. The whole ceremony was a fitting climax to the years work.

A. S. FRATER,
Principal.

APPENDIX IX.

DISPOSITION OF MEDICAL UNITS.

General Hospital—
Colonial War Memorial Hospital, Suva.

Tuberculosis Hospital, Tamavua.

Forster House Obstetric Hospital, Suva.

District Hospitals—
Lautoka.
Levuka.
Labasa.
Central Leprosy Hospital, Makogai.

Rural Hospitals, 14.

Dispensaries, 36.

Subsidized Hospitals—
Methodist Mission Hospital, Ba.
Cottage Hospital, Ba.
Cottage Hospital, Waiyevo.
Nurse Morrison's Maternity Hospital, Suva.

Privately owned Hospital—
Colonial Sugar Refining Co., Rarawai, Ba.

Rural Hospitals—
Waiyevo (Taveuni).
Wainibokasi.
Vunidawa.
Penang, Ra.
Nailaga.
Nadi
Koromumu.
Nabouwalu.
Vunisea, Kadavu.
Savu Savu.
Loma Loma.
Lakeba.
Matuku.
Rotuma.

Rural Dispensaries—
Nanukuloa.
Raralevu.
Nausori.
Korovou.
Lodoni.
Nayavu.
Lomanikoro.
Beqa.
Viria.
Namarai.
Tavua.
Nadarivatu.
Nasua.
Vatukoula.
Vitogo.
Naviti.
Momi.
Natuatuacoko.
Korolevu.
Serua.
Navua.
Namosi.
Nakasaleka.
Gau.
Koro.
Lekutu.
Wainunu.
Naduri.
Dreketi.
Visoqo.
Udu.
Natewa.
Saqani.
Yanawai.
Moala.
Rabi.

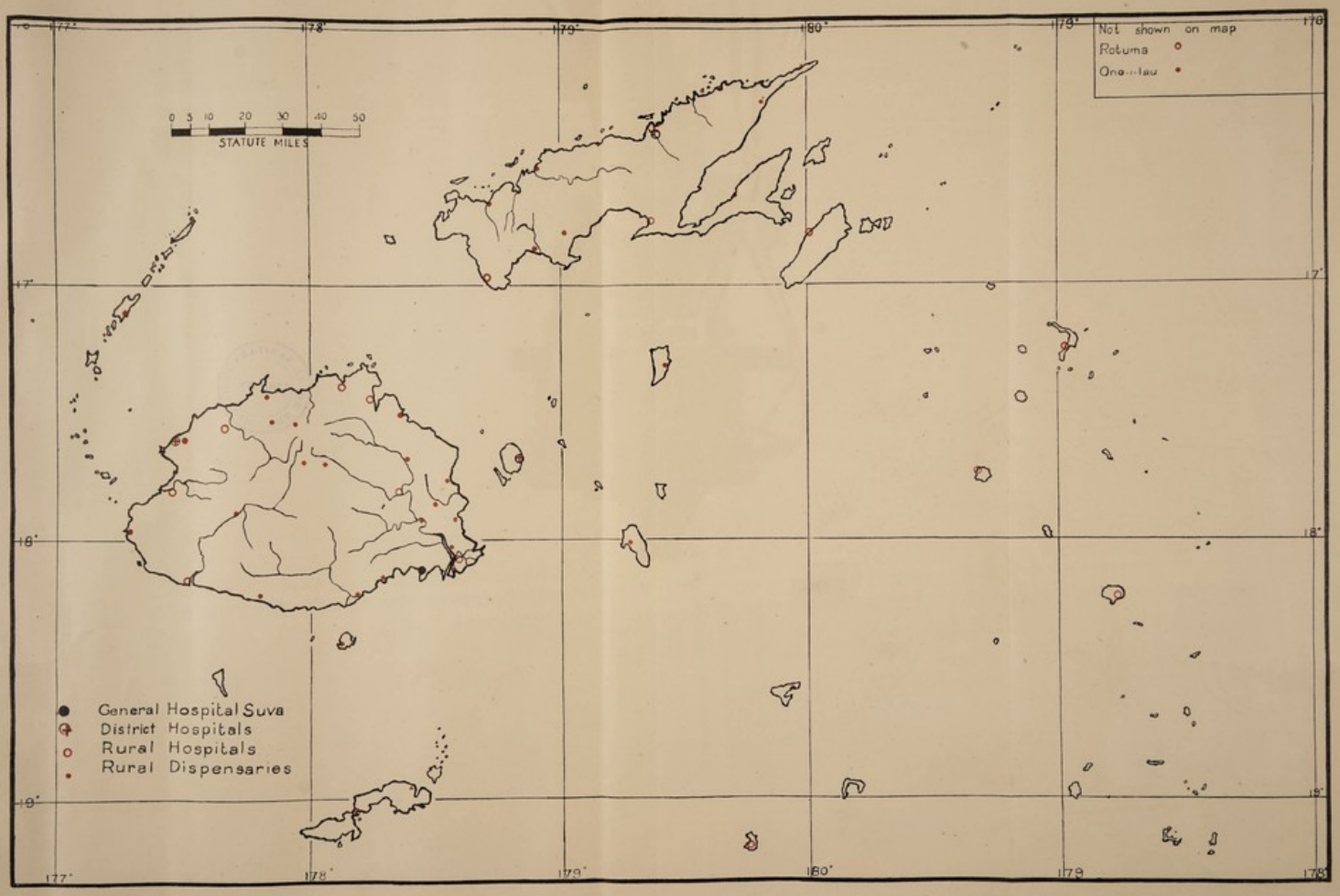
APPENDIX X.

SUMMARY OF METEOROLOGICAL OBSERVATIONS
AT LAUCALA BAY FOR THE YEAR 1947

	Mean pressure in mb. (24 hourly values) M.S.L.	Mean and Extreme Screen Temperatures F°.								Mean Relative Humidity per cent (24 hourly values).	Mean Total cloud (24 hourly values) 0–10.	Rainfall.			Weather—No. of Days of						Bright Sunshine (Total hours.)
		At 8 a.m.	Maximum.	Minimum.	Mean ½ (Max. plus Min.)	Highest maximum.	Date.	Lowest Minimum.	Date.			Total.	Maximum in 24 hrs. ending 8 a.m.	Date	Rain 0·01″ or more.	Hail.	Thunderstorms.	Lightning only.	Fog.	Dew.	Gales force 8 or more.	
January ..	1008·0	81·1	86·3	75·2	80·8	91·9	14	72·2	1	83·5	6·7	11·73	3·70	2	22	0	8	10	0	3	0	225·5
February ..	1007·3	79·5	85·3	73·9	79·6	89·0	14	69·7	11	84·4	6·6	14·70	5·36	20	18	0	5	4	0	6	0	197·0
March ..	1010·1	78·6	85·1	73·5	79·3	89·7	19	71·1	13, 21	88·3	8·1	20·99	5·01	11	29	0	17	3	0	3	0	125·3
April ..	1011·1	79·4	85·5	74·6	80·1	88·9	19	67·7	17	84·3	6·1	11·25	3·15	10	16	0	3	9	0	2	0	213·2
May ..	1011·9	75·9	81·7	71·8	76·7	86·6	6	64·4	24	81·5	7·3	13·59	3·45	9	20	0	1	0	0	3	0	145·0
June ..	1013·5	74·4	79·5	70·6	75·1	86·0	10, 27	62·0	18	82·4	8·2	13·35	4·68	2	22	0	2	1	0	2	0	104·8
July ..	1014·0	73·5	78·7	69·7	74·2	85·2	12	63·3	2	85·8	8·1	7·31	2·12	24	18	0	0	1	0	4	0	91·3
August ..	1014·6	73·8	78·5	68·8	73·7	83·8	25	63·7	16	81·8	7·2	3·05	0·99	27	19	0	0	0	0	9	0	129·7
September ..	1015·1	75·1	79·5	70·0	74·8	84·0	23	65·2	8	82·7	7·8	8·55	3·12	16	22	0	4	3	2	6	0	134·0
October ..	1013·1	76·6	81·3	70·7	76·0	84·2	12	63·3	18	79·4	6·5	5·49	3·59	14	13	0	1	1	0	3	0	207·5
November ..	1010·3	77·6	82·1	72·1	77·1	88·8	18	68·7	5	81·5	7·5	4·90	2·06	22	16	0	2	0	0	0	0	178·9
December ..	1007·3	79·6	85·8	73·1	79·5	88·3	13	70·1	29	85·1	6·9	5·88	1·48	20	19	0	10	7	0	6	0	204·9
Year ..	1011·4	77·1	82·4	72·0	77·2	91·9	14/1/47	62·0	18/6/47	83·4	7·3	120·79	5·36	20/2/47	234	0	53	39	2	47	0	1957·1

WIND DIRECTION SUMMARY
(FORCE 2 OR MORE)
PERCENTAGE FREQUENCY

	N.	NNE.	NE.	ENE.	E.	ESE.	SE.	SSE.	S.	SSW.	SW.	WSW.	W.	WNW.	NW.	NNW.	Prevailing Direction.	Percentage of Calms to force 1, 0–3 m.p.h.	Maximum velocity m.p.h.	From	Mean Velocity m.p.h.
January ..	0·9	4·7	9·1	17·5	9·6	36·0	15·0	3·7	..	..	1·0	1·0	..	0·2	0·4	0·9	ESE.	23·0	48	NE.	9
February ..	1·6	2·6	6·3	3·2	1·8	23·5	18·5	9·8	9·0	7·4	3·2	1·3	2·9	3·9	2·4	2·6	ESE.	43·6	30	SE'ly.	1
March ..	2·1	5·6	5·8	8·4	7·2	31·5	20·3	2·8	1·7	0·9	0·9	0·9	3·5	3·7	2·1	2·6	ESE.	42·4	44	ESE.	2
April ..	1·8	5·1	11·9	8·4	7·1	22·7	27·1	10·3	1·8	0·6	0·6	0·6	1·1	..	0·7	0·2	SE.	36·9	37	WNW.	10
May ..	0·4	2·8	3·7	5·5	10·5	22·6	21·3	10·3	7·4	5·2	3·1	2·2	2·2	2·0	0·6	0·2	ESE.	27·3	38	SE.	8
June ..	1·4	4·3	6·3	7·7	15·0	21·4	25·8	6·5	4·0	0·9	4·0	0·7	0·9	0·5	0·2	0·4	SE.	22·9	49	ESE.	3
July ..	1·0	7·1	5·4	20·4	13·9	18·5	14·8	9·4	4·6	2·3	0·4	1·0	1·2	..	..	..	ENE.	35·4	33	SW.	19
August ..	3·6	3·1	6·7	22·2	33·5	16·6	6·8	3·1	0·8	0·7	1·0	0·7	0·5	0·7	..	..	E.	17·6	39	E.	3
September ..	0·5	1·7	5·7	8·5	7·6	40·8	19·6	9·4	2·8	1·6	0·2	..	0·7	0·5	0·2	0·2	ESE.	19·9	42	ESE.	16
October ..	0·9	1·6	2·2	3·8	18·5	41·1	24·5	4·5	1·4	..	0·2	0·2	0·5	0·4	..	0·2	ESE.	25·4	35	SE.	15
November ..	2·3	3·8	8·8	11·7	13·0	30·0	14·2	4·3	4·9	3·9	1·3	0·5	0·9	0·4	..	..	ESE.	22·8	32	SE.	23
December ..	4·3	11·9	9·0	9·8	13·6	25·0	10·3	3·0	3·0	1·1	0·8	1·4	2·2	1·6	1·9	1·1	ESE.	50·6	31	ESE.	23
Year ..	1·7	4·5	6·7	10·6	12·6	27·5	18·2	6·4	3·5	2·1	1·4	0·9	1·4	1·2	0·7	0·7	ESE.	30·6	49	ESE.	3/6/47


Not shown on map
Rotuma
Ono-i-lau
0 5 10 20 30 40 50
STATUTE MILES
General Hospital Suva
District Hospitals
Rural Hospitals
Rural Dispensaries
177°
178°
179°
180°
179°
178°
17°
18°
19°