Annual report / Medical Department, Fiji.

LEGISLATIVE COUNCIL OF FIJI COUNCIL PAPER NO. 36 OF 1960

Colony of Fiji

ANNUAL REPORT

OF THE

MEDICAL DEPARTMENT

FOR THE YEAR

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CONTENTS

MEDICAL DEPARTMENT

(Annual Report for 1959)

I—GENERAL REVIEW

The health of the community in the Colony was reasonably good during the year and there was no major outbreak of infectious disease. The number of cases notified as influenza was greater than in the previous year, but as the diagnosis of this condition is, in the absence of laboratory confirmation, largely presumptive, the most that can be said is that infections of the nose, throat and lungs were probably more prevalent in 1959 than in 1958. No clear cut epidemic of influenza occurred. The incidence of whooping cough was slightly higher than in the preceding year, but, here again, there was no large scale outbreak.

2. The number of cases diagnosed as cerebro-spinal meningitis gave cause for some concern as, although in some instances the infecting organism may not have been the meningococcus, the incidence was considerably higher than previously. There was no obvious connection between cases as, while the majority were from the Western District, these were widely dispersed in time and distance. The situation is being watched. No deaths were recorded and recovery was satisfactory, and without noticeable sequelae.

3. With the exception of infective hepatitis, all remaining notifiable diseases were lower in incidence or showed no significant increase ; the incidence of the former continued to rise, but similar increase was noted throughout the Pacific territories including Australia and New Zealand, and no preventive measures, other than those of normal hygiene, are possible until future research points the way.

4. The public health services rendered by departmental staff can be divided roughly into four sections—

(*a*) quarantine measures at sea and airports
(*b*) environmental sanitation measures in urban and rural areas
(*c*) maternity and child health activities, and
(*d*) inoculation campaigns.

A full staff of health workers was maintained at Suva and Lautoka, the only ports of entry for ships coming from malarious areas, and at Nadi International Airport. This staff was engaged mainly in the prevention of entry of malaria-bearing mosquitoes into the Colony and guarding against entry of the formidable epidemic diseases. Deratisation of ships and disinfestation of imported used clothing were undertaken as part of these measures.

5. Hygiene and sanitation work was carried out in urban and rural areas by health inspectorate staff (Health Inspectors, Assistant Health Inspectors and Mosquito Inspectors), Health Sisters and to some extent by Assistant Medical Officers and District Nurses ; the last two groups are being brought into this field of activity to a greater and greater extent. The Senior Medical Officer of each division gave general supervision to this work. The Suva City Council has its own health section for provision of sanitary services within the city boundaries, although all port health work and a great deal of mosquito control within the city is undertaken by staff of the Government medical services. In all other areas under the control of local authorities, Medical Department staff was employed, either in a whole or part-time capacity. Unfortunately sanitation control in Fijian areas is complicated by the fact that, under Fijian regulations, Health Inspectorate staff has no right of action. It is hoped, with the assistance of the Fijian Affairs Board, to bring about some change in this respect in the not too distant future.

6. Maternity and child welfare work in rural areas was mainly in the hands of Health Sisters and District Nurses of which there were 7 and 132 respectively in action throughout the Colony during the year. Excellent work was carried out by these members of staff and increased emphasis is being laid by them on health education of the public in all its aspects. Attempts were made to revive the women's committees in Fijian villages through which a tremendous amount could be done to improve conditions of hygiene and child care. These attempts have met with some success in a number of areas and considerable stimulus was given to these activities by the Women's Interests Officer of the South Pacific Commission, aided by members of the Education Department, Nutritionists of the South Pacific Health Service and members of local voluntary organisations.

7. The B.C.G. campaign, carried out by three teams, each consisting of an Assistant Medical Officer and Nurse and under the control of a Senior Assistant Medical Officer, continued successfully. By the end of the year the whole of Vanua Levu and adjacent islands, Kadavu island and half Viti Levu, had been covered, and a start had been made in the Lau Group.

8. Inoculations against diphtheria, tetanus and whooping cough (with triple antigen), smallpox and typhoid fever were continued, but it was considered that a sufficiently wide coverage has not been achieved and plans are in hand for a full-scale triple antigen campaign in 1960.

9. Work at all hospitals and dispensaries continued at full pressure. The divisional hospitals are situated at Suva—the Colonial War Memorial Hospital, which is also the specialist centre for the Colony and training hospital for medical and nursing students, Lautoka, Labasa and Levuka. In addition, there are 14 rural hospitals and 44 rural dispensaries.

10. The high reputation of the Colonial War Memorial Hospital was maintained, and a number of improvements were initiated by the Medical Superintendent and his staff. The public responded wholeheartedly to an appeal for funds during "Hospital Week" to provide general amenities and the sum of £2,700 was collected.

11. Plans are in hand for the construction of a new Out-patients Department and Operating Theatre block for which it is hoped to obtain a grant from Colonial Development and Welfare funds. The X-ray department has been enlarged and new apparatus is being installed.

12. A Specialist Obstetrician/Gynaecologist was appointed early in the year and, in addition to the establishment of a gynaecological section of the hospital, the ante-natal clinics have been increased and are now undertaken in a building, refurnished to some extent, used formerly by the Filariasis Research Unit. The maternity annexe, which is housed in an old residence, became dangerously over-crowded, and it was decided to start a domiciliary midwifery service partly to relieve pressure on the hospital accommodation, but also because it was considered that domiciliary midwifery has many advantages in so far as the normal cases are concerned, as it allows nursing staff to teach infant care and general hygiene in the home environment.

13. The only cases now admitted to the non-paying maternity annexe are women having their first baby, those who have had six or more babies, those cases found at ante-natal examination to be abnormal to some extent and better dealt with in hospital, and those cases whose homes are relatively inaccessible. Teams of midwives are available on call to carry out home deliveries in those cases where the patient does not elect to call in a private practitioner. Pupil midwives will be attached to the regular midwives in due course to gain experience in the work.

14. The work at the Central Laboratory continued to increase, but despite this, the Pathologist gave her usual painstaking attention to the training of staff. In addition, a Blood Bank was established and the new building, consisting of cubicles for blood-taking, a blood storage section, and a waiting room, was opened in November. The Pathologist, Dr. Minnie Gosden, retired from the service at the end of the year and will be sadly missed. She has not only a very wide experience of pathology and forensic medicine, gained during long service in many parts of the Commonwealth, but, as stated, is a first-class teacher, and a not small army of technicians scattered throughout the world, owe her much for the excellent training they have received.

15. The Tuberculosis Hospital at Tamavua remained the centre from which curative tuberculosis services were directed. Treatment of the disease is standardised, as far as possible, throughout the Colony, and the X-ray pictures of all new cases are studied at this centre. The system of review of cases worked well and relatively few cases failed to report, although a number had to be chased. For the first time there was, towards the end of the year, no waiting list for beds, and, although this is to some extent due to increased use of domiciliary treatment, it is gratifying to know that no case requiring hospital treatment now has to be refused owing to lack of accommodation.

16. The new Recreation Hall, a fine building with space to seat 300 persons, a stage and cinema projection room and other amenities, built from funds made available by the Trustees of the War Memorial Anti-Tuberculosis Fund, was opened by His Excellency the Governor, Sir Kenneth Maddocks, K.C.M.G., on December 3rd. This building will release a ward formerly used for recreation purposes in the main hospital and this new ward of 65 beds is being equipped from funds also provided by the Trustees.

17. The number of cases of leprosy held on the island of Makogai was greatly reduced during the year, not only as a result of some 40 Gilbertese patients being transferred to their own home territory for continued treatment, but also because the previous year's record number of persons discharged as cured was again broken. The number of cases remaining on the island at the end of 1959 was less than 320. Generous grants in cash were again made by the New Zealand Leper Trust Board as well as numerous gifts in kind.

18. The staff of the hospitals at Lautoka, Labasa and Levuka, are to be congratulated on the excellent work achieved as the figures, showing out-patient attendances and in-patients accommodated, indicate. These hospitals do not enjoy the same facilities both in regard to buildings, equipment or staff quarters, as exist in Suva, and thus the care and attention given by the staff is all the more praiseworthy. Similarly, the work carried out in rural hospitals and dispensaries was, in general, of high standard and the Assistant Medical Officers in charge of these units are worthy of praise and recognition.

19. The work of the Dental Section of the department developed along the lines indicated in previous reports, i.e. the main emphasis was on conservative dentistry for the children and dental health education. Expansion of the work was greatly limited by lack of funds and staff, but, even so, a very wide field of activity was covered and it was found possible to open a new dental centre at Ba towards the latter part of the year. The successful use of the mobile dental clinic, presented by the Colonial Sugar Refining Company in 1958, was fully demonstrated.

20. The training of medical and dental students at the Central Medical School was maintained as was training of auxiliary medical personnel such as laboratory technicians, radiographers, pharmacists, health inspectors and dietitians. The medical and dental students were drawn from most of the Pacific island territories, and for the first time, students from Netherlands New Guinea were enrolled for the dental course. The new Nuffield Department of Preventive and Social Medicine was opened officially in June by His Excellency the Governor and the emphasis on preventive medicine in the training of students was brought into sharper focus.

21. Students from overseas are accepted for all training courses organised by the department and, although relatively few avail themselves of this opportunity in so far as auxiliary medical courses are concerned, these are likely to become more popular as public health projects in these territories develop. It is hoped to start a course for physiotherapists in 1960.

22. Post-graduate training courses in almost all subjects were also available and the first set course in public health, which leads to a certificate in public health for successful students, is timed to commence in March, 1960. Assistant Medical Officers from Fiji have been given opportunities for post-graduate study in Australian and New Zealand Universities by the kindness and co-operation of the University authorities.

23. Training of nurses continued at the schools at Suva and Lautoka. At the former school training is at two levels, the one based on the local curriculum and the other on that of New Zealand, successful candidates of the latter course receiving qualifications recognised in New Zealand. The local curriculum has been revised during the year to bring it more closely into line with the one of New Zealand and thus simplify any future unification of the training. During the year the terms of service of nurses were more clearly defined and promotion possibilities of both the local and New Zealand level trainees were laid down. It is now possible for the girl trained on the local curriculum to gain promotion on merit to the higher nursing grades, although her colleague on the New Zealand course has opportunities of more rapid promotions.

24. Staff relations were fostered wherever possible and various conferences and meetings organised with this end in view. A Divisional Medical Officers' conference was held early in the year to define policy, co-ordinate activities and allocate funds and one session was devoted to discussion of professional problems with the specialist staff. The Director of Medical Services held meetings of specialist staff two or three times during the year. A Health Sisters' conference was arranged in October and plans were formulated for future work. The Assistant Medical Officers' Council met the Director of Medical Services twice and the Medical Adviser to the Secretary of State once, during the year, to discuss matters of mutual interest. The Central Committee of Nurses met the Director of Medical Services for the first time since the establishment of the Nurses' Association, to discuss terms of service and other matters connected with the nursing profession.

25. The Assistant Medical Officers' Association organised a most successful seminar from August 31st to September 4th at which " Preventive Medicine " was discussed. Specialist staff of the Medical Department, members of the Education Department and a private practitioner gave valuable assistance during the sessions.

26. Another new feature, initiated by the Principal of the Central Medical School, is a weekly broadcast to Assistant Medical Officers. This programme, put out on two frequencies over the Posts and Telegraphs Department network each Friday evening, is made up of a brief period of departmental news ; a talk on some specialised professional subject and ends with answers to questions which have been sent in by Assistant Medical Officers. The broadcasts have proved popular and it is hoped will do much to provide stronger links with Assistant Medical Officers in out-stations as well as giving good in-service training. The talks have also been mimeographed and bound in booklets for distribution to Assistant Medical Officers, not only in Fiji, but in many other island territories.

27. A large number of visitors to Fiji saw something of the work of the department during the year, one, particularly welcome, was Dr. Wilson Rae, Medical Adviser to the Secretary of State, who travelled widely throughout the Colony as well as visiting the British Solomon Islands Protectorate, New Hebrides, Gilbert and Ellice Islands Colony and the Kingdom of Tonga. He gave most valuable advice and his stay was enjoyed by all.

28. Finally, I would like to express my very sincere gratitude to all members of the staff of the department for their loyal and devoted service throughout the year.

II—ADMINISTRATION

29. The departmental establishment is shown as Appendix I to this report.

30. *Senior Staff Changes, Appointments, Transfers, etc.*—Dr. D. W. Bookless was promoted to Senior Medical Officer during the year.

31. The following Medical Officers proceeded on study and vacation leave :—

Dr. W. G. MacIntosh ..	Course in Clinical Pathology
Dr. G. D. Murphy ..	Course in Tuberculosis Diseases
Dr. P. W. E. Downes ..	Course in Opthalmology
Mr. R. I. Cohen	Course in Recent Advances in Surgery
Dr. J. L. M. de Beaux ..	Course leading to the F.R.C.S. in which he was successful.

32. Dr. W. L. I. Verrier, Senior Medical Officer (Statistics) proceeded on pre-retirement leave in November.

33. The following newly appointed Medical Officers arrived in the Colony during the year :—

Dr. M. A. R. Eslick
Dr. C. Parker
Dr. A. E. Crossley
Dr. F. A. S. Emberson
Dr. B. Pitt-Payne.

34. Drs. H. R. Simons, A. E. Crossley and P. B. Thompson were seconded to the New Hebrides, Niue and the British Solomon Islands Protectorate respectively during the year.

LEGISLATION

35. Legislation of medical interest was as follows :—

1959—Legal Notice No. 30 orders that Part III of the Dangerous Drugs Ordinance shall apply to certain specified drugs.

1959—Legal Notice No. 33 delegates powers to the Colonial Secretary and Commissioners in connection with the appointment of Boards of Visitors to Public Hospitals.

1959—Legal Notice No. 37 regulates precautionary measures to be taken against the introduction of mosquitoes into the Colony by aircraft or shipping.

1959—Legal Notice No. 38 delegates powers to Commissioners under subsection (1) of section 10 of Public Health Ordinance.

1959—Legal Notice No. 39 delegates powers to Director of Medical Services under subsection (1) of section 47 of the Pharmacy and Poisons Ordinance.

1959—Legal Notice No. 42 delegates powers to the Colonial Secretary under subsection (2) of section 4 of the Mental Treatment Ordinance.

1959—Legal Notice No. 51 approves various drugs for the purposes of free entry under the Customs Ordinance.

1959—Legal Notice No. 54 delegates powers to the Colonial Secretary under subsection (1) of section 7 of the Animals (Control of Experiments) Ordinance.

1959—Legal Notice No. 55 approves various drugs for the purposes of free entry under the Customs Ordinance.

1959—Legal Notice No. 56 adds certain toilet commodities to the Second Schedule to the Pharmacy and Poisons Ordinance.

1959—Legal Notice No. 58 amends the Schedule to the Public Health (Sanitary Services) Regulations.

1959—Legal Notice No. 64 amends Regulation 38 of the Public Hospitals and Dispensaries Regulations.

1959—Legal Notice No. 81 approves various drugs for the purposes of free entry under the Customs Ordinance.

1959—Legal Notice No. 103 approves various drugs for the purposes of free entry under the Customs Ordinance.

1959—Legal Notice No. 136 provides complete revision of Building Regulations.

1959—Legal Notice No. 141 amends the Schedule to the Public Health (Sanitary Districts) Resolution, 1958.

1959—Legal Notice No. 144 amends the Pharmacy and Poisons Ordinance, by additions and deletions to the First, Second and Third Schedules.

1959—Legal Notice No. 145 amends the Poisons Regulations.

1959—Legal Notice No. 149 amends the Pure Food Regulations.

1959—Legal Notice No. 155 approves various drugs for the purposes of free entry under the Customs Ordinance.

1959—Legal Notice No. 166 amends the Public Hospitals and Dispensaries Ordinance.

1959—Legal Notice No. 213 approves various drugs for the purposes of free entry under the Customs Ordinance.

FINANCE

35A. Expenditure for the year 1959—General, District, Special and Rural Hospitals and Dispensaries :—

Salaries of Medical Officers	£51,596
Salaries of Assistant Medical Officers	77,686
Salaries of Laboratory Staff	6,610
Salaries of Nursing Staff	80,392
Salaries of X-ray Staff	1,839
Salaries of Clerical Staff	17,201
Salaries of Dental Staff	9,280
Wages of Subordinate Staff	78,961
Rations	99,513
Power, Heat, Light, Water and Refrigeration	4,012
X-ray Services	924
Laundry	2,281
Hospital Paupers' Burials	14
General Maintenance, Stores and Incidentals	9,903
Drugs, Instruments and Appliances	64,371
Bedding, Clothing and Equipment	16,444
Books and Periodicals	62
	£521,089

36. Medical Stores and Equipment—Value of issues to nearest £ :—

	Drugs and Instruments	*Clothing and Bedding*	*Total*
	£	£	£
Cash Sales	10	....	10
Private Accounts	70	....	70
Special Hospitals	4,368	2,958	7,326
General Hospitals	30,010	9,636	39,646
Rural Hospitals	5,355	1,773	7,128
Dispensaries	5,648	136	5,784
Health Sisters	2,560	233	2,793
Child Welfare Nurses	2,679	249	2,928
Missions	53	....	53
Other Medical	246	135	381
Other Departments	2,301	725	3,026
	£53,300	£15,845	£69,145

37. Revenue and Expenditure of the Department :—

	1957	1958	1959
	£	£	£
Gross Expenditure	852,119	888,047	901,285
Revenue	83,961	78,169	86,867
Nett Expenditure	768,158	809,878	814,418
Percentage of Colony's Expenditure	11·62 per cent	10·0 per cent	10·0 per cent
Expenditure per head of population	42s. 7d.	44s. 0d.	42s. 2d.

These figures include revenue and expenditure of the South Pacific Health Service.

Year	*Total Population*	*Expenditure per head*
1950	293,764	27s. 2d.
1951	301,959	32s. 10d.
1952	312,678	36s. 7d.
1953	320,801	38s. 8d.
1954	333,389	36s. 9d.
1955	345,164	36s. 3d.
1956	357,881	40s. 2d.
1957	361,038	42s. 7d.
1958	374,284	44s. 0d.
1959	387,646	42s. 2d.

38. The above table shows the expenditure on Medical and Health Services per head of the population over the past 10 years.

COLONIAL DEVELOPMENT AND WELFARE PROJECTS

39. *Filariasis Research*—The report of Mr. C. B. Symes, O.B.E., of Her Majesty's Overseas Research Service on the Natural History of Human Filariasis in Fiji, and concerning the research work which he had undertaken from 1954–1956 became available at the beginning of the year and was distributed. Mr. G. F. Burnett, who succeeded Mr. Symes, continued his work until June when his research came to an end with the exception of certain follow-up investigations which will be carried out by local staff. Mr. Burnett's report is in the course of preparation.

INTERNATIONAL AGENCIES

40. *World Health Organisation—Refresher Course in Tuberculosis*—A refresher course in Tuberculosis for Assistant Medical Officers was organised by the World Health Organisation and held in Fiji in January. Fifteen students, who were drawn from a large number of the island territories attended the course which was directed by Sir Harry Wunderly, formerly adviser on Tuberculosis to the Australian Government, and Dr. L. O. Roberts, World Health Organisation Tuberculosis Officer.

41. *Dental Health*—A Dental Health Seminar was organised by the World Health Organisation in Adelaide from 10th–20th February, in conjunction with the XVth Australian Dental Congress which followed from 23rd–27th February. Two officers attended from Fiji—Mr. D. M. Ellerton, Senior Dental Officer and Ratu I. L. Vosailagi, Dental Officer.

42. *Education and Training of Sanitation Personnel*—A regional seminar on Education and Training of Sanitation personnel was organised by the World Health Organisation in Tokyo from October 21st–November 5th. This was attended by Dr. W. H. McDonald, Deputy Director of Medical Services, and Dr. T. G. Hawley, Lecturer in Public Health, Central Medical School. Professor C. W. Kruse, World Health Organisation consultant at the seminar, visited Fiji and various other territories before the seminar.

43. *Fellowships*—Jimione Samisoni, a Fijian student, was granted a fellowship in 1955 to study Physiology at Otago University with the object of taking the post of Assistant Lecturer at the Central Medical School, Suva, on completion of his studies. He was successful in obtaining his degree in October and will return to Fiji to take up his new duties in the new year.

44. Joji Guivalu, also a Fijian student, was granted a fellowship to study Biology at the same University with the same object in view.

45. *Central Medical School*—The World Health Organisation continued to assist the Central Medical School by providing two Lecturers, the one in Biology and the other in Physiology and by gifts of equipment and supplies. The Lecturer in Biology, Mr. L. O. Simpson, continued his appointment throughout the year. Dr. J. J. Huang replaced Dr. C. Petitpierre as Lecturer in Physiology. Equipment and supplies to the value of $2,000 were granted during the year.

46. *China Medical Board*—The China Medical Board made available a fellowship to A.M.O. Ram Singh Tulsi to study Anatomy for one year at Otago University. This officer, who is already an Assistant Lecturer in Anatomy at the Central Medical School, made excellent use of the opportunity given to him and returned to the School with a widened outlook and a knowledge of a number of new techniques.

47. *South Pacific Commission—Women's Interests*—The Women's Interests Officer, Miss M. E. T. Stewart, visited Fiji during the year and discussed plans for future work in 1960. Considerable importance is attached to these Women's Interest projects, particularly in relation to Maternity and Child Health and Environmental Sanitation programmes.

48. *Health Education*—The Commission's Health Education Officer, Miss L. J. Martin, visited Fiji during the year and discussed future plans.

49. *Nutrition*—Miss M. Maramba, the Commission's Nutrition and Home Economics Officer, visited Fiji in April and made useful contacts.

50. *Executive Officer for Health*—The newly appointed Executive Officer for Health, Dr. T. K. Abbott, visited Fiji towards the end of the year on a fact-finding tour and saw something of the work of the Department.

51. *Epidemiological Services*—The Epidemiological Service for the islands territories is centred in Fiji and is the responsibility of the Inspector-General, South Pacific Health Service. The South Pacific Commission subsidises this service by a grant of £400 p.a.

III—PUBLIC HEALTH

ORGANISATION

52. The public health activities of the Government Medical Services are organised and directed by the Director of Medical Services as head of the Medical Department. He is assisted at his headquarters by a Deputy Director of Medical Services, Administrative Secretary, Accountant, Nursing Superintendent, Chief Health Inspector and clerical staff. For administrative purposes the Colony is divided into four medical divisions corresponding with the general administrative divisions and each is in the charge of a Divisional Medical Officer who is responsible for the organisation of the curative and preventive services in his area. He controls the work of junior Medical Officers, Assistant Medical Officers, Health Inspectors, Assistant Health Inspectors, Health Sisters, Nurses and other medical auxiliaries in his division. A conference of Divisional Medical Officers, under the chairmanship of the Director of Medical Services, is arranged once or twice a year to decide upon policy and to co-ordinate activities.

COMMUNICABLE DISEASES

53. The trends in certain notifiable diseases in the last six years is shown in the following table :—

	1954	1955	1956	1957	1958	1959
Dengue	72	36	38	12	8	28
Dysentery (all forms) ..	244	143	231	233	163	113
Enteric Group	13	26	14	25	29	29
Infantile Diarrhoea ..	1,527	1,542	2,369	2,117	1,991	2,092
Pertussis	422	627	471	261	1,000	1,154
Influenza	8,492	5,437	5,710	12,190	11,626	20,041
Measles	7	9	12	7,066	15	13
Poliomyelitis	....	14	....	6	328	6
Infective Hepatitis ..	45	53	63	123	279	396
Tuberculosis*	489	745	610	654	721	644
Leprosy*	26	36	40	44	39	42
Gonorrhoea	211	322	299	375	335	281
Syphilis	12	48	15	26	10	8
Yaws	....	....	519	159	135	82
Tetanus	45	37	38	38	56	47

*These figures are obtained from the Central Registry and not from notification records as those from the Registry are considered to be more accurate. A full table of notifiable diseases is given at Appendix XII. Certain of these notifiable diseases deserve special mention :—

54. *Poliomyelitis*—There was no recurrence of the poliomyelitis epidemic of 1958 and only six cases of the disease were reported during the year. Vaccination on payment continued to be available.

55. *Mumps and Whooping Cough*—There was a sharp increase in the number of cases of mumps notified during the year, i.e. 2,054 as against 187 in the previous year, but the disease was mild. The number of cases of whooping cough remained fairly steady, 1,154 (1,000).

56. *Intestinal Diseases*—There was little change in the number of cases of intestinal disease notified as against the previous year. Although notifications of typhoid remained the same and dysentery showed a fall, there was a slight increase in infantile diarrhoea. This indicates that no marked improvement in sanitation, particularly rural sanitation, has taken place.

57. *Influenza*—A large number of cases of influenza was notified, (20,041) but there was no major outbreak and probably many of the cases recorded were common colds or upper respiratory tract infections caused by organisms other than an influenza virus.

58. *Cerebro-spinal Meningitis*—The incidence of cerebro-spinal meningitis showed a sharp rise : 57 cases in 1959 as against 1 in 1958, but notifications, although mainly from the Western Division, were dispersed throughout the year and cases were not confined to any particular centre. The situation is being watched, but cases responded well to treatment.

59. *Infective Hepatitis*—There was again an increase in the number of cases reported, 396 (279). As stated in the annual report for last year the epidemiology is still obscure although infected water-supplies have been stigmatised.

60. *Tuberculosis*—There was a slight fall in the number of cases notified, 644 as against 723 in the previous year, but it is as yet too early to say whether this has any significance. The B.C.G. inoculation campaign continued throughout the year and the system of providing treatment on a domiciliary basis was further developed in those areas where it could be applied.

61. *Leprosy*—The number of cases notified remained fairly steady and it is clear that hidden foci of the disease still exist.

62. *Yaws*—The majority of cases notified were non-infectious, but all cases are followed up and treatment given to the sufferer and his contacts where this is indicated.

63. *Venereal Disease*—There was a slight fall in the number of cases both of gonorrhoea and of syphilis notified : gonorrhoea 281 as against 335 and syphilis 8 as against 10 in 1958. Venereal disease does not constitute a major public health problem at the present time.

VITAL STATISTICS

64. The Registrar-General's estimates of the population of the Colony at the end of 1959 are shown at Appendix XIII together with other information on vital statistics.

IV—HYGIENE AND SANITATION

65. There are now 18 local rural authorities. This number is increased to 26 by the addition of those authorities responsible for administration in the City of Suva, the Town of Lautoka, the International Airport at Nadi and the Townships of Nausori, Ba, Nadi, Levuka and Labasa.

66. The minutes of meetings of all local authorities are received by the Central Board of Health and advice is offered on any of the matters raised. All requests for legal aid are passed through the Board to the Crown Law Officers.

67. During the year a great deal of work has been carried out on all public health legislation with a view to bringing it up to date.

68. The health staff of all but one local authority is employed by this Department and seconded to the various authorities as is found necessary for carrying out the duties laid down by public health legislation. For details, see Appendix XV.

V—SEAPORT AND AIRPORT HEALTH AND QUARANTINE

69. The ports and airports of entry remain unchanged, Suva and Lautoka being ports of entry for shipping for all overseas vessels and Levuka being restricted to ships from those overseas ports other than recognised malarial areas.

70. The International Airport at Nadi is open to all land aircraft and Laucala Bay to all sea-planes. Landings at Nausori Airport are generally restricted to aircraft from disease-free areas, but by special arrangements aircraft from other areas can be accepted. For details see Appendix XV.

VI—HOSPITALS AND DISPENSARIES

71. The centres available for the treatment of the sick are : 44 dispensaries, in the charge of Assistant Medical Officers, located at centres of population both rural and urban throughout the Colony. Fourteen rural hospitals, the majority of which are administered by Assistant Medical Officers, are sited at points convenient for the collection of cases who require hospital treatment from their immediate environs or from out-lying dispensaries. Divisional hospitals, four in number, are situated at the divisional centres and draw their patients either from the immediate surrounding population or from the rural hospitals if greater facilities for diagnosis and treatment are required than are available at the latter. The actual location of these dispensaries and hospitals is shown at Appendix II (*a*).

72. The size of the rural hospitals varies from 52 to 9 beds and they fulfil a useful function in providing accommodation for those cases where a satisfactory clinical diagnosis can be made and treatment is short-term ; for treatment of those persons who normally would receive domiciliary treatment, but where home conditions are unsatisfactory and for convalescent cases from the major divisional units. They do much to relieve pressure on the divisional hospitals.

73. The Colonial War Memorial Hospital, Suva (298 beds) continued to fulfil its triple role of specialist centre for the Colony, teaching hospital for medical and nursing students from the Central Medical School and Central Nursing School and divisional hospital for the central division. In general, nursing staff was maintained at reasonable strength at this hospital during the year. Many improvements have been achieved by the Medical Superintendent and his senior staff and the hospital can now be considered to be of high standard although much needed expansion and improvements are still delayed through lack of funds. Further details are given in Appendix IV.

74. Excellent work was carried out at the Lautoka Hospital during the year despite the unsatisfactory nature of the hospital buildings, the overcrowding due to lack of accommodation and the frequent changes of senior nursing staff.

75. The Labasa and Levuka hospitals functioned satisfactorily during the year. These hospitals are also of antiquated design, but the pressure on accommodation is not quite as great as in Lautoka and Suva, although it is considerable. There are frequent difficulties of retaining staff owing to the less satisfactory accommodation which can be offered and lack of modern conveniences.

76. Specialised institutions are : the Tuberculosis Hospital at Tamavua, the Leprosy Hospital and Settlement at Makogai, the transit station at St. Elizabeth Home, Suva, the Mental Hospital, Suva. Details are given in Appendices III, VI, VII and V, and only brief mention of these institutions need be made here.

VII—DENTAL DIVISION

77. The Dental Division of the department fulfils four main functions :—

(*a*) the establishment and maintenance of permanent and dental clinics ;
(*b*) the provision of a school dental service ;
(*c*) the production of a dental health education programme ; and
(*d*) the training of Assistant Dental Officers, Dental Hygienists and Dental Mechanics.

Details of the work are given at Appendix VIII.

VIII—LABORATORY DIVISION

78. The Central Laboratory, Suva, although within the precincts of the Colonial War Memorial Hospital, is an independent section of the department. Specimens are sent for examination from all parts of the Colony and from time to time investigations are undertaken for other island territories. In addition to clinical pathology, bacteriology, etc., required by both hospitals and private practitioners, the Pathologist in charge undertakes a great amount of medico-legal work and examination of fóod samples. Furthermore the training of A.M.Os. and laboratory technicians is carried out in this Laboratory. The demand for blood for transfusion purposes continued to increase and a blood bank was established which again has added greatly to the work of the staff. A small subsidiary laboratory for routine clinical tests has been established at Lautoka.

IX—NUTRITION

79. The staff of the department concerned with rationing of hospitals and feeding of patients and staff consists of a Supervising Dietitian and five housekeepers. The Supervising Dietitian directed the work of the housekeepers at the major hospitals and also advised officers in charge of the smaller hospitals on matters connected with catering.

80. The general nutrition research and education work of the Colony is carried out by the Nutritionists of the South Pacific Health Service, which has its headquarters in Suva. Lectures on nutrition were given to A.M.Os. and Nurses by the staff of this Service who also organised the training of Assistant Dietitian/Housekeepers. Various booklets, posters and teaching aids were produced during the year.

X—TRAINING

81. The training of Assistant Medical Officers and Assistant Dental Officers continued at the Central Medical School. Details regarding the number of students under training and their territories of origin are given in an appendix to this report, together with other relevant information regarding the School. The Department of Preventive and Social Medicine for the establishment of which the Nuffield Foundation provided a grant of £20,000 was opened during the year by His Excellency the Governor, Sir Kenneth Maddocks, K.C.M.G. The greater emphasis on public health in undergraduate training was continued and it is proposed to start post-graduate courses in this subject next year. The health survey of a selected island by the final year medical students was again carried out and this is now an established part of the training at the School. As mentioned in the general review of this report, the Principal of the School has started weekly broadcasts to A.M.Os. in the district areas as part of an in-service training programme and also in an attempt to strengthen the links between headquarters and the district personnel.

82. At the Central Nursing School at Tamavua, there were 178 Nurses under training of which 156 were taking the local course and 22 the New Zealand standard training. During the year two students taking the higher level course were successful and obtained registration as Nurses.

83. At the Lautoka Nursing School, 81 students were in training on the local curriculum. As forecast last year, the Labasa school has been closed and students absorbed into the Tamavua and Lautoka schools. Training of Nurses continued at the Methodist Mission Hospital, Ba.

84. Difficulty was again experienced in keeping the establishment of teaching staff up to full strength and the Principal and her staff are thus to be congratulated all the more on the excellent results achieved.

85. Other courses of training undertaken were for Assistant Health Inspectors, Assistant Pharmacists, Assistant Radiographers, Laboratory Technicians, Dental Hygienists, Dental Mechanics and Housekeeper/Dietitians. It is proposed to start training Assistant Physiotherapists next year.

XI—DEPARTMENTAL VESSELS

86. A number of vessels are maintained and controlled by the Medical Department, amongst which are the following :—

The 42-ton a.k. *Vuniwai* used chiefly for carriage of staff on inspection and transfer, the transport of patients, particularly those suffering from tuberculosis and leprosy, and for the distribution of medical supplies. The vessel was also used in times of emergency to carry foodstuffs and, on occasions, for the transport of special teams on survey or other research work.

The a.k. *Makogai*, as her name indicates, is the vessel used as transport for the Leprosy Settlement on the island of Makogai and was used to convey stores, staff, visitors and discharged patients between Makogai, Viti Levu and Levuka.

The launch *Eileen*, also based on Makogai, was used mainly for the collection of copra from various points on the island, in fishing expeditions for patients and staff and provides communication between Makogai and Levuka.

The launch *Vuniwai-ni-Toba* was used for purposes of giving pratique to vessels arriving in Suva harbour, for fumigation and deratisation duties and for short journeys to neighbouring islands including weekly visits to the quarantine islands of Makuluva and Nukulau.

The *Adi Makereta*, which was based formerly at Wainibokasi, was transferred to Labasa for relatively short journeys within the reef. The Rewa river in which she formerly navigated has now become so silted that she was unable to fulfil her proper function.

87. Various motorized punts are either in use or on order for river and close coastal work. The annual grant given to the Department by the Colonial Sugar Refining Company for child welfare work is being used, with the Company's permission, for the purchase of more of these vessels for transport of Health Sisters and A.M.Os.

XII—PHILANTHROPIC ORGANISATIONS

88. *New Zealand and Fiji Leper Trust Board*—The Fiji Board, under the Chairmanship of Sir Hugh Ragg, continued to disburse funds allocated to Fiji by the parent body in New Zealand. A splendid allocation—this year amounting to £NZ11,500 was made available, and very sincere thanks are due to Mr. P. J. Twomey, M.B.E., J.P., the Secretary of the New Zealand Board for his tireless efforts; to the other members of the Board for their support and the people of New Zealand for their generosity.

89. The money is used to provide grants for those ex-leprosy patients who may need assistance and also for a variety of capital works on Makogai and at St. Elizabeth Home.

90. *War Memorial Anti-Tuberculosis Fund*—This Fund, which accumulated as a result of voluntary contributions, is administered by a Board of Trustees of which Sir Hugh Ragg is the Chairman and Mr. W. E. Donovan, I.S.O., K.S.G., is Secretary. Funds have been made available for buildings and equipment used in the campaign against tuberculosis and during the year a new recreation room was opened which has released a ward, formerly used for recreation purposes, with the provision of an additional 65–70 beds ; both the new buildings and the equipment for the ward were financed from the Fund. The general expenses for the B.C.G. vaccination campaign are also being borne by the Fund.

91. *British Red Cross Society*—The Fiji Branch, under the Presidency of Lady Maddocks and the Directorship of Mr. E. B. Povey, continued its activities during the year and gave great assistance to the Department. The services rendered covered a wide range and included diversional therapy and mobile libraries for hospital patients, a group for care of handicapped children and gifts of children's clothing, toys and special equipment.

92. *St. John Ambulance Brigade and Association*—First Aid and Home Nursing classes continued throughout the year and the enthusiasm of members was maintained. Personnel from the Brigade continued to give valuable service in manning ambulances at the Colonial War Memorial Hospital during the night hours.

93. *Home of Compassion*—The Home of Compassion staffed by Marist Sisters accepts aged ladies who, for some reason or another, require some degree of nursing care. The institution is excellently run and fulfils a very real need.

94. *The Cottage Home*—This home for aged people is supported by public subscription and also is well organised and of great importance to the welfare of the elderly.

95. *Crippled Children's Association*—A Crippled Children's Association under the Presidency of Dr. Sahu Khan was formed during the year with branches in Lautoka and Suva. The aim of the Association is to arrange for treatment of crippled children, when this is possible, assist in rehabilitation and provide various aids and applicances where these are necessary.

96. *Royal New Zealand Air Force—Mercy Flights*—Again tribute must be paid to the officers and men of the Royal New Zealand Air Force, who, from the flying-boat base at Laucala Bay, have continued to give invaluable service in times of emergency. Calls upon the Air Force to pick up seriously ill patients from the remoter islands or to drop supplies have met with immediate response and the mercy flights have been carried out with characteristic efficiency and cheerfulness.

XIII—METEOROLOGY

97. Summaries of the meteorological observations for 1959 are given at Appendix XVII. For these, I am indebted to the Meteorological Officer at Laucala Bay, Suva.

P. W. DILL-RUSSELL,
Director of Medical Services.

APPENDIX I

DEPARTMENTAL ESTABLISHMENT

	1959
1. Medical and Administrative Section—	
Director of Medical Services	1
Deputy Director of Medical Services	1
Secretary	1
Senior Medical Officers	5
Physician Specialist	1
Surgeon Specialist	1
Surgeon	1
Medical Officers	15
Ophthalmologist	1
Radiologist (1) Pathologist (1)	2
Anaesthetist	1
Gynaecologist/Obstetrician	1
Senior Dental Officer (1) Dental Officer (1)	2
Assistant Medical Officers	125
Assistant Dental Officers	12
Physiotherapists	2
2. Nursing Section—	
Nursing Superintendent	1
Matrons and Assistant Matrons	5
Sisters in Charge	3
Nursing Sisters (54) Health Sisters (13)	67
Principal (1) Tutors (6) Nursing School	7
Nurses	399
3. Technical Section—	
Laboratory Superintendent	1
Chief Laboratory Assistant	1
Laboratory Assistants	13
Chief Health Inspector	1
Health Inspectors (11) Assistant Inspectors (27)	38
Chief Pharmacist and Medical Storekeeper	1
Pharmacists (2) Assistants (8)	10
Radiographers (3) Assistant Radiographers (4)	7
Supervising Dietitian	1
Dental Hygienist (1) Assistant Dental Hygienists (6)	7
Assistant Dental Mechanics	3
4. Clerical Section—	
Departmental Accountant	1
Clerical Staff	54
5. Supervisory Section—	
Head Attendant, Mental Hospital	1
Assistant Head Attendant (1) Orderlies, Mental Hospital (20)	21
Caretaker, Quarantine Island	1
Overseer (1) Storekeepers and Storeman (5)	6
Housekeepers (7) Laundry Supervisors (2) Head Seamstress (1)	10
Subordinate Staff	595
6. Central Medical School—	
Principal	1
Medical Officers	1
Anatomy and Surgery Lecturer	1
Science Lecturer (1) Chemistry Lecturer (1)	2
Assistant Lecturer	1
Medical Officer (Lecturer in Public Health)	1
Dental Officers	2
Assistant Medical Officer	1
Part-time Lecturer	1
Housekeeper (1) Clerical Staff (3) Subordinate staff (22)	26
7. Fiji Leprosy Hospital—	
Senior Medical Officer	1
Clerical Staff	2
Overseer (1) School teachers (2) Constables (4)	7
Subordinate Staff	41
Nursing Sisters	23
Assistant Nursing Sisters	11
8. Malaria Prevention and Filariasis Control—	
Surveyor in Charge	1
Inspectors and Assistants	63
9. Central Medical Research Library—	
Assistant Librarian	1
Clerical Staff	1

APPENDIX II (*a*)

HOSPITALS AND DISPENSARIES

	Beds	
MAIN AND SPECIALIST HOSPITALS—		
Colonial War Memorial Hospital, Suva	298	
Tamavua Tuberculosis Hospital, Suva	356	
Mental Hospital, Suva	156	
Fiji Leprosy Hospital, Makogai	622	
DISTRICT HOSPITALS—		
Lautoka	168	
Labasa	104	
Levuka	42	
SUBSIDIZED HOSPITALS—		
Methodist Mission Hospital, Ba	41	
Private Hospital, Colonial Sugar Refining Company, Ba	12	
RURAL HOSPITALS—		
Nailaga, Ba	20	
Wainibokasi	52	
Waiyevo, Taveuni	56	
Vunidawa	20	
Koromumu, Sigatoka	28	+ 5 cots
Vaileka, Rakiraki, Ra	18	
Nadi	36	
Savusavu	33	
Vunisea, Kadavu	26	
Lomaloma, Lau	16	
Rotuma	16	
Lakeba, Lau	19	
Matuku	9	
Nabouwalu, Bua	30	

See Appendix II (*b*) for details of out-patients.

See Appendix II (*b*) for details of in-patients.

DISPOSITION OF URBAN AND RURAL DISPENSARIES

In Suva—

Suva Gaol	Police Station
Samabula	Nabua
Nuffield Clinic	

Central Division (*under Divisional Medical Officer*)—

Beqa Island	Nausori Clinic
Korovou, Tailevu North	Navua
Lodoni	Nayavu
Lomanikoro	Korovisilou
Mokani	Viria
Namosi	

Eastern Division—

Gau	Koro
Kabara	Moala
Ono-i-Lau	Yaro, Kadavu

Western Division (*under Divisional Medical Officer, Lautoka*)—

Korolevuiwai	Natuatuacoko
Nadarivatu	Naviti, Yasawa
Nadi Airport (administered from Suva)	Tau
Namarai	Nanukuloa
Tavua	Nasau
Vatukoula	

Northern Division (*under Divisional Medical Officer, Labasa*)—

Dreketi	Visoqo
Lekutu	Wainunu
Naduri	Rabe Island Community
Kioa Island	Saqani
Natewa	Korotasere
Tukavesi	

Total Rural Dispensaries—44.

See Appendix II (*b*) for details of out-patients.

APPENDIX II (*b*)

The following tables show the analyses of in-patients and out-patients for the year 1959 :—

1. CENTRAL AND DISTRICT HOSPITALS ADMISSIONS—RACIAL DISTRIBUTION

Race	C.W.M. Hospital	Tamavua	Lautoka	Labasa	Levuka	Totals
Fijians	2,323	422	1,267	538	336	4,886
Indians	3,949	69	3,912	1,505	59	9,494
Europeans and Part-Europeans ..	851	10	396	68	43	1,368
Chinese and Others	512	33	63	21	26	655
Totals	7,635	534	5,638	2,132	464	16,403

2. OUT-PATIENTS THROUGHOUT THE COLONY

Race	C.W.M. Hospital	3 District Hospitals	14 Rural Hospitals	Rural Dispensaries	Totals
Fijians	49,078	24,282	66,293	156,257	295,910
Indians	73,938	68,392	68,472	76,660	286,868
Europeans and Part-Europeans	6,013	3,061	12,467	23,710	54,869
Others	4,784	4,834			
Totals	133,813*	100,569	147,232	256,033	637,647

* Includes 14,758 dental cases

3. GENERAL AND RURAL HOSPITALS—ADMISSIONS

Hospitals	No. of Beds	Daily average In-patients	Admissions
Colonial War Memorial Hospital ..	339	285	7,635
Tamavua Tuberculosis Hospital ..	362	256	534
Three District Hospitals	314	295	8,234
Fourteen Rural Hospitals	384	235	8,908
Totals	1,399	1,071	25,311

APPENDIX III

TUBERCULOSIS DIVISION—1959

In this section of the Annual Report, an attempt has been made to indicate the work done in the campaign against tuberculosis.

2. Wherever possible, patients are treated in their own areas, but Tamavua Hospital remains the main tuberculosis hospital.

3. In the B.C.G. campaign it has been possible, during 1959, to follow up the initial survey with the M.M.R. unit to investigate Heaf positive re-actors.

4. *Tamavua Hospital*—Comparative figures for 1947, 1952 to 1959 are set out below :—

	1947	1952	1953	1954	1955	1956	1957	1958	1959
In-patients at 31st December ..	153	241	270	304	304	320	325	350	341
Admissions	269	257	360	487	513	482	705	568	534
Discharges	183	137	248	373	465	392	412	464	517
Deaths (all causes)	64	46	53	42	27	29	26	13	15
Percentage Deaths to Discharges ..	35	33	21	11	6	7	6	3	2·9
Out-patients (for full review) ..	....	1,285	1,756	2,048	2,227	2,790	3,620	3,302	3,784

Of the 534 admissions, 114 were re-admissions. There were 422 Fijians and 69 Indians admitted during 1959.

Age (years)	Males	Females	Totals
0– 9	33	28	61
10–19	36	34	70
20–29	91	83	174
30–39	50	46	96
40–49	47	27	74
50–59	20	11	31
60–69	14	5	19
70–79	6	3	9
Totals ..	297	237	534

Admissions by race :—

Fijian	Indian	European	Part-European	Rotuman	Chinese	Others	Total
422	69	3	7	11	12	10	534

Discharges by age and sex :—

	AGE (YEARS)								
Sex	0–9	10–19	20–29	30–39	40–49	50–59	60–69	70–79	Total
Males ..	26	41	98	47	42	18	12	8	292
Females ..	21	43	72	40	29	12	4	4	225
Totals ..	47	84	170	87	71	30	16	12	517

Thirteen Fijians and 2 Indians died during the year. The total number of deaths being 15. At the close of the year, there were 15 patients only awaiting admission to Tamavua Hospital.

5. The out-patient department dealt with 3,784 patients who attended for full assessment or periodic review, an increase of 482 this year. Nine hundred and seventy-four patients attended the department for domiciliary treatment. Nine thousand five hundred and forty-two injections of streptomycin were given.

6. The casualty service for people living near the hospital operated to a lesser extent during the year. One thousand two hundred and twenty-six cases were seen and 1,490 dressings and treatments were given. This type of work is now done at the Nuffield Clinic of Social and Preventive Medicine which is opposite the hospital.

7. Four thousand two hundred and forty-two films from outside centres were reviewed at Tamavua Hospital : of these the Radiologist examined 2,201, the remainder being dealt with by the staff as reviews. The Radiologist found 277 of the 2,201 films to have appearances consistent with tuberculosis—these were referred to the Medical Officer in charge. These 2,201 films consisted mainly of staff on routine X-ray or for immigration purposes and of those people who had never been X-rayed before.

8. Eight thousand eight hundred and seventy-three Tamavua Hospital reports were sent out in 1959.

9. Minor operative measures continued to be carried out at Tamavua Hospital, while major surgical procedures were performed at the Colonial War Memorial Hospital. These included—

Lobectomy	7
Pneumonectomy	3
Decortication	1
Segmental Resection	1
Apicolysis with Plombage	1
Lobectomy plus Decortication	1
Lobectomy with Thoracoplasty	1

10. The Dental Clinic operated by the Dental Division of the Department was attended by 399 patients on whom 635 procedures (fillings, extractions and miscellaneous treatments) were carried out.

11. The occupational therapy department was fully used by patients during the year.

12. The weekly film shows and other entertainments were given.

13. The farm and plantation continued to provide local produce. Crops to the value of £1,284 were harvested : pork worth £609 was produced and poultry produced egg and table birds to the value of £459.

14. *Western Division*—In the Western Division, Lautoka Hospital is the centre for tuberculosis. The most noticeable difference from 1958 is the number of patients receiving domiciliary chemotherapy. At the end of 1959, there were 232 such patients as compared with 80 in 1958. The scheme has worked fairly well and as more experience of the system is gained, there will be fewer places and cases in which it cannot work.

REPORT ON CASES DEALT WITH AT LAUTOKA HOSPITAL

	Europeans	Fijians	Indians	Others	Total
Admissions	.....	67	36	4	107
Discharges	.....	27	20	1	48
Deaths	.....	1	.....	.....	1
Transfer to Tamavua Hospital	.....	13	4	.....	17
Transfer to Rural Hospitals	.....	5	4	.....	9
Remaining in Lautoka Hospital	.....	23	7	2	32
Total	.....	136	71	7	214
P.P. Refills					
In-patients	.....	.....	.....	.....	.....
Out-patients	.....	80	.....	.....	80
Total	.....	80	.....	.....	80
Review cases	15	723	334	56	1,128
First attendance to Tuberculosis Clinic	9	167	168	31	375
Total	24	890	502	87	1,503

OUT-PATIENTS ON TREATMENT AT VARIOUS STATIONS UP TO 31st DECEMBER

Stations	Europeans	Fijians	Indians	Others	Total
Lautoka	1	44	14	4	63
Koromumu	.....	15	14	1	30
Nailaga	.....	11	15	2	28
Vatukoula	.....	13	1	5	19
Penang	.....	5	9	.....	14
Nadi	.....	9	7	.....	16
Natuatuacoko	.....	6	.....	.....	6
Tavua	.....	2	3	1	6
Kese (Yasawa)	.....	12	.....	.....	12
Namarai	.....	2	.....	.....	2
Nasau	.....	2	.....	.....	2
Tau	.....	3	1	.....	4
Nanukuloa	.....	10	.....	.....	10
Airport	.....	3	1	1	5
Korolevu	.....	3	1	1	5
Total	1	140	66	15	222

15. *Northern Division*—In the Northern Division, the 100-bedded Labasa Hospital has a ward for the treatment of tuberculosis. This ward is always full. The hospitals at Savusavu, Taveuni and Nabouwalu also treat patients. In all parts, domiciliary treatment is offered where it is considered feasible, but the difficulties of supervision and regular reviews are greater than in the Western Division.

16. The Divisional Medical Officer, Eastern, reports that slightly more than half the patients occupying beds in Levuka Hospital daily, were being treated for tuberculosis—the figures are 13·5 tuberculosis patients daily of an average of 26. There were 35 cases of pulmonary tuberculosis notified in the Eastern Division during the year.

17. *B.C.G. Vaccination Campaign*—Three teams each consisting of one A.M.O. and a Nurse under the overall direction of a senior A.M.O. have been operating since June, 1958, the records are maintained by two clerks.

18. In 1958, a pilot project was in operation until August, when a poliomyelitis epidemic caused its suspension except on Kadavu where one team operated for the last three months of the year.

19. The teams aim to test all persons from 0–20 years of age. The areas covered in 1958 and 1959 include part of Viti Levu, Kadavu, Vanua Levu, Lomaiviti and Lau Group.

20. Figures are as follows :—

Year	Area	No. Tested and Read	No. Vaccinated with B.C.G.
1958	Pilot Area	12,070	9,199
1958	Kadavu	3,357	2,425
	Total	15,427	11,624
1959	Vanua Levu	23,323	17,678
1959	Lomaiviti	4,849	3,938
1959	Lau Group	6,774	5,634
	Total	34,946	27,250
	TOTAL FOR 1958 AND 1959	50,373	38,874

21. In order to determine the conversion rate after B.C.G. vaccination, a series of post-vaccinal tuberculin tests were done 3 to 9 months after vaccination in the following areas :—

1. Emperor Gold Mines, Vatukoula and Tavua district—urban.
2. Labasa—2 large Indian schools and Fijian villages in the district of Labasa and Macuata—urban and semi-rural.
3. District of Vuya in the province of Bua—rural.

The results were :—

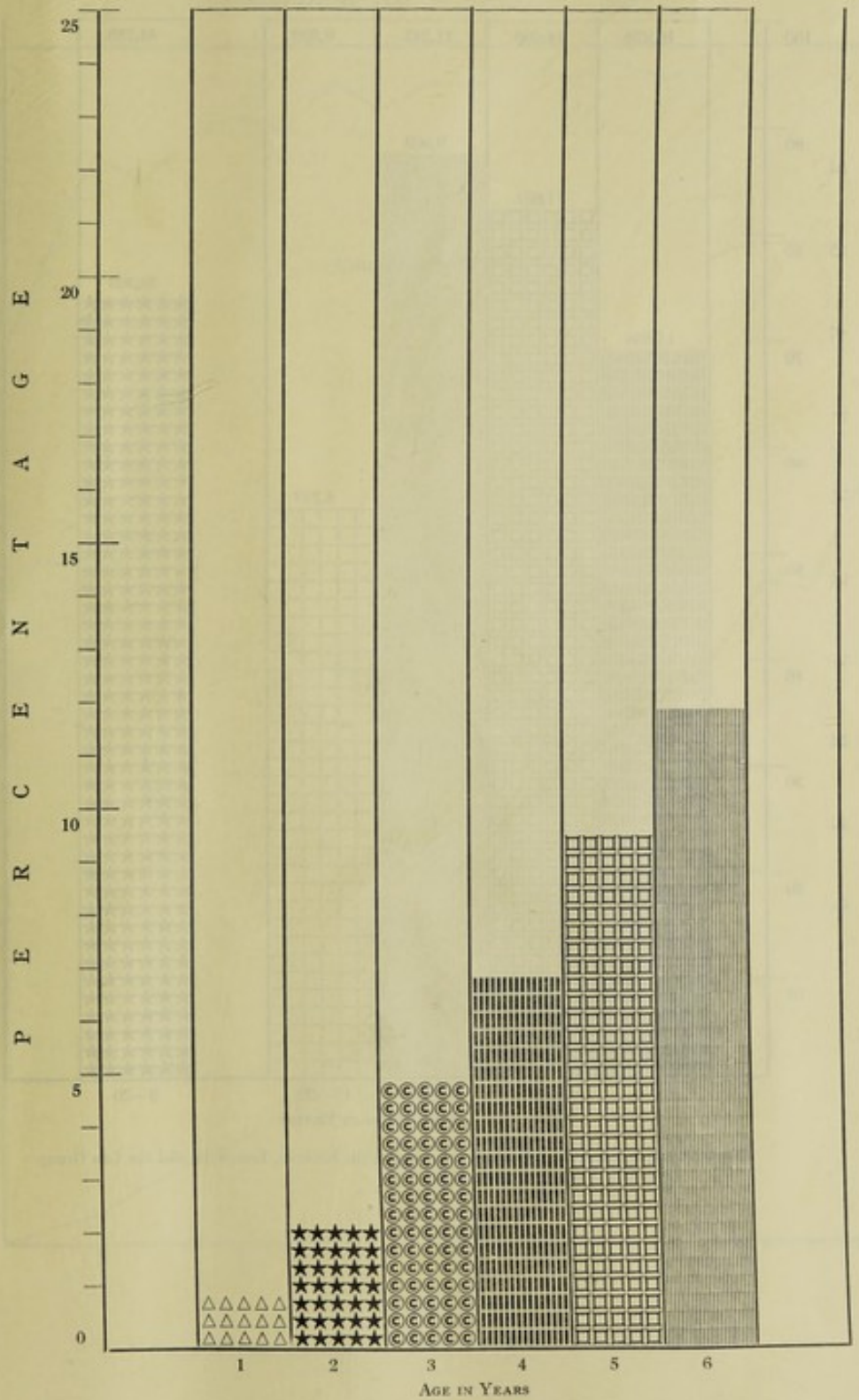
1. A total of 3,000 Heaf tests were done, the average conversion rate was 95·5 per cent.
2. There appeared to be no significant difference in the conversion rate in different areas or in those tested after 3 months or 9 months.
3. There, however, appeared to be higher conversion rates in school children and higher age groups as compared with infants and those of pre-school age in all areas.

22. Apart from a couple of mild subcutaneous abscesses, there was no clinical case of regional adenitis or any other local or systematic complications reported since the commencement of the campaign.

23. From the beginning of the campaign, the attempt has been made to examine all re-actors in children of 5 years of age or under and all those up to 20 years who showed a positive Heaf re-action classified as plus 3 and plus 4—this examination has been either by M.M.R. or clinically or both.

B.C.G. CAMPAIGN

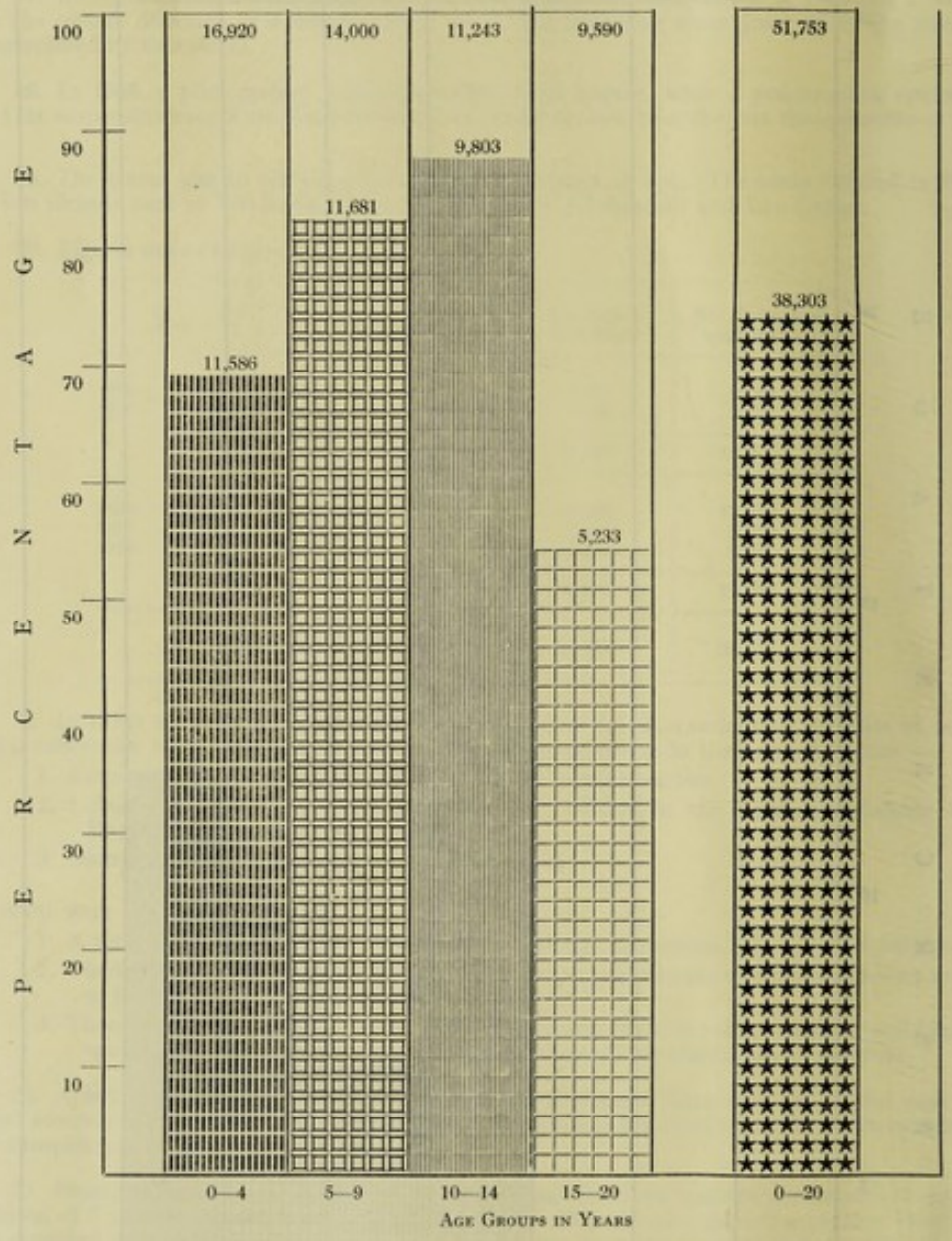
BREAK UP OF TUBERCULIN REACTORS (HEAF TEST) IN CHILDREN 0-6 YEARS DURING THE B.C.G. CAMPAIGN 1958–1959 IN VATUKOULA, TAVUA–RA, KADAVU, VANUALEVU, LOMAIVITI AND THE LAU GROUP.



NOTE.—Graph based on break up of a total of 20,000 children tested

B.C.G. CAMPAIGN

PERCENTAGE OF ATTENDANCE IN FIVE-YEARS AGE GROUPS
(Based on the 1956 Census)

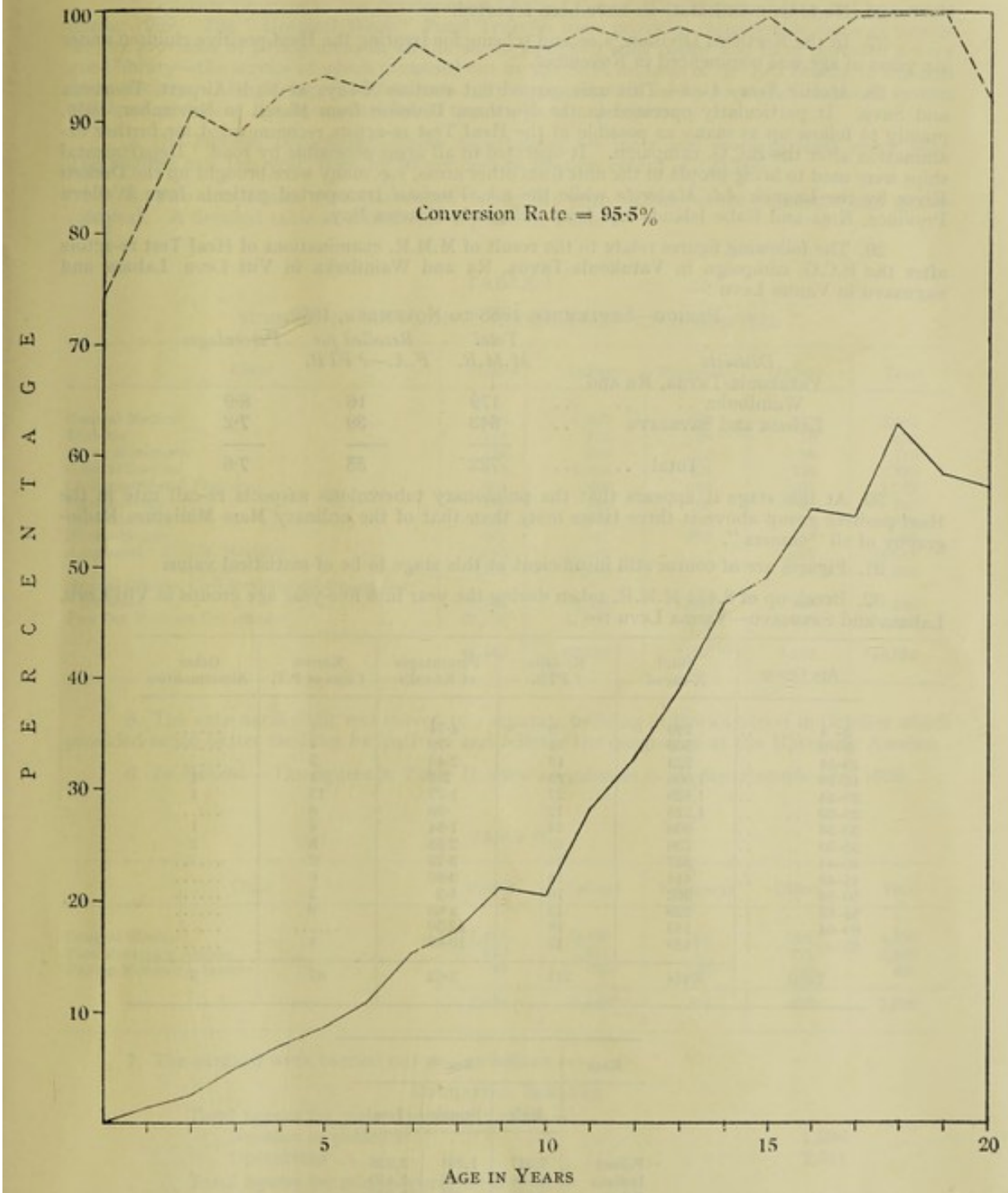


Note.—Graph based on BCG Survey in Vanualevu, Kadavu, Lomaiviti and the Lau Group from May 1958–December, 1959

B.C.G. CAMPAIGN

PERCENTAGE OF TUBERCULIN REACTORS

First HEAF Test ———— 50,000
Second HEAF Test – – – – – – 3,000



NOTE:—Graph based on B.C.G. Survey from May, 1958 to December, 1959

24. During the year two clinical trials with I.N.H. were commenced. In Kadavu 39 children aged 0–6 years, who were positive tuberculin re-actors, were examined and then commenced on a course of I.N.H. tablets at a dosage of approximately 5 mg. per kilo body weight. These children lived in villages in various parts of Kadavu—in most instances a distance from the A.M.O. or District Nurse. The trial is therefore not only a clinical one but also one to test the administrative problems arising in an isolated area with difficult communications where the supervision of regular dosage must be the responsibility of the parents and village officials.

25. The returns for the first six months have been encouraging. Thirty-five of the 39 have, according to the returns, been taking the I.N.H. tablets regularly and they have done well. Of the 4 defaulters, one child had treatment for four months, two for five months and one, who missed one month in the first five months, re-commenced in January, 1960.

26. No toxic manifestations have been reported.

27. In the Northern Division, a second scheme for treating the Heaf-positive children under six years of age was commenced in November.

28. *Mobile X-ray Unit*—This unit carried out routine X-rays at Nadi Airport, Tamavua and Suva. It particularly operated in the Northern Division from March to November, 1959, mainly to follow up as many as possible of the Heaf Test re-actors recommended for further examination after the B.C.G. campaign. It operated in all areas accessible by road. Departmental ships were used to bring people to the unit from other areas, e.g. many were brought up the Dreketi River by the Launch *Adi Makereta* while the a.k. *Vuniwai* transported patients from Wailevu Province, Kioa and Rabe Islands and from villages in Natewa Bay.

29. The following figures relate to the result of M.M.R. examinations of Heaf Test re-actors after the B.C.G. campaign in Vatukoula-Tavua, Ra and Wainibuka in Viti Levu, Labasa and Savusavu in Vanua Levu :—

PERIOD—SEPTEMBER 1958 TO NOVEMBER, 1959.

Districts	*Total M.M.R.*	*Recalled for F.A.—? PTB.*	*Percentages*
Vatukoula-Tavua, Ra and Wainibuka	179	16	8·9
Labasa and Savusavu ..	543	39	7·2
Total	722	55	7·6

30. At this stage it appears that the pulmonary tuberculosis suspects re-call rate in the Heaf-positive group above is three times more than that of the ordinary Mass Miniature Radiography of all " comers ".

31. Figures are of course still insufficient at this stage to be of statistical value.

32. Break-up of 8,424 M.M.R. taken during the year into five-year age groups in Viti Levu, Labasa and Savusavu—Vanua Levu :—

Age Group	Total X-rayed	Re-calls ? PTB.	Percentages of Re-calls	Known Cases of P.T.	Other Abnormalities
0– 4	190	9	4·74	1	.....
5– 9	509	4	·79	4	.....
10–14	523	13	2·49	3	.....
15–19	1,000	25	2·5	4	1
20–24	1,529	27	1·77	13	1
25–29	1,225	12	·98	8	.....
30–34	908	14	1·54	4	1
35–39	736	19	2·58	8	2
40–44	557	18	3·23	2	.....
45–49	414	16	3·86	8	.....
50–54	302	16	5·3	2	.....
55–59	229	13	5·68	9	.....
60–64	143	18	12·59	.....	.....
65–+	159	17	10·69	1	.....
Total ..	8,424	221	2·62	67	5

Race	Sex		
	Male	Female	Total
Fijians ..	2,347	1,591	3,938
Indians ..	1,884	566	2,450
Others ..	1,173	863	2,036
All races ..	5,404	3,020	8,424

M.M.R. Survey	8,424
Routine X-rays	380
Total M.M.R. taken in 1959	8,804

APPENDIX IV

COLONIAL WAR MEMORIAL HOSPITAL, SUVA

The Colonial War Memorial Hospital is the main hospital of the Colony. It provides the specialist treatment and is the teaching hospital for medical students from the Central Medical School and student nurses from the Central Nursing School.

2. Further progress in the development of the Colonial War Memorial Hospital was made during 1959. The " Hospital Week " Fund Trustees have provided considerable sums of money for the provision of sitting areas in all the wards equipped with radios and have provided a very good library—the service of which is carried out by the Suva division of the Fiji Branch of the Red Cross Society. The paying ward has been fully equipped with an up-to-date Nurses call system and track screening has been provided in two wards as a preliminary trial.

3. *Out-Patients Department*—These departments see more and more patients every year. The number has, this year, risen by 20 per cent to the new record of 123,766.

4. Two new clinics were introduced during the year, namely acute rheumatic and gynaecological. A detailed table of attendance is given at Table I.

TABLE I

SUMMARY OF OUT-PATIENTS ATTENDANCES—C.W.M. HOSPITAL

Clinic	Fijians	Indians	Europeans	Others	Total
General Medical	626	1,807	286	243	2,962
Diabetic	113	725	26	16	880
Acute Rheumatic	116	889	25	89	1,119
General Surgical	810	1,294	231	238	2,573
Orthopaedic and Fractures	601	826	154	191	1,772
Gyanaecology	170	444	65	63	742
Ophthalmology	1,639	3,303	66	631	5,639
Physiotherapy	161	341	376	68	946
Ante-natal : C.W.M. Hospital	7,040	11,516	....	1,055	19 611
Wainibokasi	1,724	1,148	....	24	2,896
Medical Officers, Civil Servants and Paying Out-Patients	3,743	3,666	1,063	748	9,220
Free Out-Patients Department	27,706	41,733	733	523	70,695
	44,449	67,692	3,025	3,889	119,055

5. The ante-natal clinic was moved to a separate building in Brown Street in October which provided much better facilities for patients and relieves the congestion at the Maternity Annexe.

6. *In-Patients*—The figures in Table II show an increase in all departments over 1958.

TABLE II

Clinic	Fijians	Indians	Europeans	Others	Total
General Block	1,475	2,380	694	201	4,750
Free Maternity Annexe	810	1,411	....	171	2,392
Paying Maternity Annexe	38	158	157	140	493
	2,323	3,949	851	512	7,653

7. The surgical work carried out was as follows :—

OPERATING THEATRE

Total figures for main operating theatre—	
Number of patients	1,836
Operations	2,011
Total figures for minor operating theatre—	
Number of patients	329
Total figures for plaster room—	
Number of patients	1,263
Grand total of patients seen by this department	3,428

ANALYSIS OF SPECIFIC OPERATIONS

A.—*Gastro-intestinal Surgery*	Total	217
Appendicectomy		80
Laparotomy		14
Cholecystectomy		15
Partial Gastrectomy		9
Bowel Resections		7
Oversewing Ruptured Ulcers		5
Haemorrhoidectomy		27
Pancreatectomy		1
Other Major Cases		59
B.—*Thoracic Surgery*	Total	46
Lobectomy		9
Segmentectomy		4
Decortication		4
Pneumonectomy		3
Mitral Commissurotomy		1
Thorocotomy		8
Others		17
C.—*Vascular Surgery*	Total	25
Stripping and ligation of varicose veins		19
Arterial Anastomosis		1
Splenectomy		1
Others		4
D.—*Gynaecological Surgery*	Total	543
Dilatation and Currettage		343
Caesarian Sections		35
Hysterectomy		52
Ovarian Tumours		20
Others		93
E.—*Ear, Nose and Throat Surgery*	Total	132
Tonsillectomy		64
Tracheotomy		8
Antral Puncture		11
Others		49
F.—*Genito-Urinary Surgery*	Total	231
Cystoscopy		90
Hydrocoelectomy		56
Prostatectomy		4
Orchidectomy		15
Nephrectomy		5
Nephrolithotomy		4
Pyeolithotomy		4
Others		33
G.—*Hernia Repairs*	Total	117
Herniorrhaphy		62
Hernioplasty		26
Herniotomy		15
Strangulated Hernia		8
Others		6
H.—*Plastic Surgery*	Total	39
Hare Lip Repair		13
Cleft Palate		6
Skin Grafts		19
Others		1
I.—*Thyroid Surgery*	Total	18
J.—*Neuro Surgery*	Total	12
Craniotomy		2
Burr Holes		1
Others		9
K.—*Breast Surgery*		21
L.—*Radium Therapy*		8
M.—*Minor Surgery*—In main theatre	Total	180
In minor theatre (mainly abscesses)		329
N.—*Ophthalmic Surgery*	Total	253
Cataracts		140
Enucleations		14
Iridectomy		23
Lacerated cornea		8
Needling Cataracts		12
Envisceration		5
Others		51

8. *Non-Paying Maternity Department*—The number of confinements in the Free Maternity Annexe continues to increase, although it has not been possible to provide further accommodation. Two hundred and forty-seven more mothers were delivered than the preceding year, the number of beds, being 24, necessitating discharge from hospital on the second day and sometimes the same day in normal cases.

9. *Domiciliary Service*—In an effort to combat the shortage of beds a domiciliary service has been commenced. All women who have had their first child, but have had less than five and in whom no abnormality requiring hospital treatment has been discovered, living in suitable circumstances, both social and geographical, are now to be delivered at home by the staff, provided they have attended the ante-natal clinic. This service was commenced in September and 92 were booked for home confinements but only 16 were actualiy delivered at home, most patients not being heard of again after booking. It is hoped that this service will increase both to relieve the bed shortage and to enable abnormal cases to be admitted and remain in hospital for longer periods as well as providing valuable training for nurses and students.

10. *New Clinic*—In the latter months of the year the clinic was transferred to a building in Brown Street which was renovated for this purpose. Already this has proved invaluable in raising the standard of our ante-natal and post-natal care because of added space and facilities and the efficient leadership of a full time Fijian Sister. The transfer has also meant added hospital space and has considerably relieved the nursing and medical staff.

11. *Wainibokasi Clinic*—Ante-natal clinics continue to be held twice weekly. All abnormal cases are transferred to Suva.

TABLE III

DELIVERIES

	Fijian	Indian	Others	Total
Total Number of Women delivered	767	1,231	149	2,147
Admissions	810	1,411	171	2,392
Discharges	808	1,405	173	2,386
Deaths	1	3	....	4
Normal Labour	587	1,040	127	1,754
Abnormal Labour	180	191	22	393

TABLE IV

BIRTHS AND DEATHS

	Fijian	Indian	Others	Total
Total Number of Infants born ..	776	1,237	149	2,162
Live Births	757	1,188	148	2,093
Premature Births	35	64	3	102
Multiple Births	16	11	1	28
Still Births	19	49	1	69
Neonatal Deaths	10	21	....	31

TABLE V

ABNORMALITIES

	Fijian	Indian	Others	Total
Anaemia (9G and under) ..	5	192	1	198
Pre-Eclamptic Toxaemia ..	13	48	1	62
Eclampsia	....	6	1	7
Ante-partum Haemorrhage ..	15	21	3	39
Post-partum Haemorrhage ..	69	28	10	107
Forceps	22	50	2	74
Caesarean Section	8	14	....	22
Breech Delivery	13	25	....	38
Manual Removal of Placenta ..	11	14	2	27

12. The following comments are made concerning the 1959 figures :—

(*a*) *Maternal Deaths*—Three occurred in unbooked cases, one admitted in cardiac failure, another with severe anaemia and eclampsia and a third with prolonged labour. The fourth, a booked case, was a diabetic who died following an uncomplicated elective Caesarean Section.

(*b*) *Still Births and Neonatal Deaths*—The still birth rate was 32 per 1,000, the neonatal death rate 14 per 1,000. The latter compares favourably with overseas figures, but the former is high. Approximately 50 per cent of cases of still births were associated with ante-partum haemorrhage and/or pre-eclamptic toxaemia and 25 per cent due to unexplained causes.

(*c*) *Anaemia*—This is confined almost exclusively to Indian women in the lower income group, 9 per cent of all women delivered showing a haemoglobin of 9 gm. or less.

13. *Paying Maternity Annexe*—The Paying Maternity Annexe continued to give good service during the year. The numbers show a very small increase over 1958. Details are given in Table VI below.

TABLE VI

	Europeans	Fijians	Indians	Others	Total
Admissions	157	38	158	140	493
Discharges	157	38	157	139	491
Normal Labours	111	35	97	112	355
Abnormal Labours	33	9	28	15	85
Still Births	1	1	7	1	10
Neonatal Deaths	4	....	....	2	6
Maternal Death	....	....	1	....	1
Caesarean Sections	4	1	5	1	11
Ante-partum Heamorrhage	....	....	1	2	3
Post-partum Haemorrhage	3	1	....	1	5
Secondary Post-partum Haemorrhage	....	....	....	....	....
Retained Placenta	1	....	....	....	1
Placenta Praevia	....	1	....	1	2
Anaemia	....	....	....	....	....
Toxaemia	2	....	1	....	3
Hyperemesis	2	....	1	....	3
Instrumental Delivery	21	2	17	7	47
Persistent occipito-posterior	7	....	2	....	9
Breech Presentation	2	2	1	2	7
Face Presentation	1	....	....	....	1
Retained Placenta	1	....	....	....	1

14. X-*ray Department*—This year again saw a steady increase in the work of the department. In one month a record number of 1,350 patients were examined. Special investigations have increased more proportionately.

15. In July and August a start was made on the construction of the now radiographic room and all the new equipment was installed by Christmas.

16. Details of patients are shown in Table VII.

TABLE VII

X-RAY PATIENTS

	Europeans	Fijians	Indians	Others	Total
In-patients	646	2,019	2,341	445	5,451
Out-patients	1,274	3,074	3,024	766	8,138
	1,920	5,093	5,365	1,211	13,589

17. *Special Examinations*—

Intravenous Pyelography	184
Barium Meals	333
Barium Enemas	57
Heart Screenings and Barium Swallows	120
Retrograde Pyelography	19
Bronchography	54
Cholecystography	107
Cystogram	4
Salpingogram	10
Sinogram	3
Myelogram	1
Encephalogram	1
Cholangiogram	2
Splenogram	2
Placentogram	1

18. *Ambulances*—A twenty-four hour ambulance service is maintained at the Colonial War Memorial Hospital using three modern ambulances. There has been a liaison with the St. John's Ambulance Brigade who provide volunteer drivers and first-aiders in addition to the six drivers paid by Government.

19. *Laundry*—In 1959, 1,740,147 articles were laundered as compared with 1,538,208 in 1958. This laundry is now over-loaded.

APPENDIX V

MENTAL HOSPITAL

The number of patients increased during the year.

2. Occupational therapy continued during the year and finger-painting was added to the patients' activities. The sum of £219 17s. 9d. was raised from the sale of articles made by the patients and it is hoped that enough money will be raised to purchase a sound projector so that pictures can be shown to all patients.

3. Details of staff are as follows :—

Medical Superintendent (part-time)
Head Attendant
Assistant Attendant
Ten Female Fijian Orderlies
Three Female Samoan Orderlies
Ten Male Fijian Orderlies
Five Male Samoan Orderlies
One Male Fijian Cook
Two Male Indian Cooks
One Male Fijian kitchen hand.

4. The following table shows admissions and discharge :—

Remaining in hospital at the end of 1958	191	
Admitted during 1959	115	
		306
Discharged during 1959	11	
Absent on trial during 1959	76	
Died in institution during 1959	7	
Remaining in hospital at end of 1959	212	
		306

5. The following table shows the length of residence of patients remaining in the Mental Hospital at the end of 1959 :—

No. of Years	*Males*	*Females*	*Total*
0–1 year	26	31	57
1–2 years	17	5	22
2–3 years	7	12	19
3 years and over	69	45	114
			212

6. Classification of admissions during 1959 and those in hospital at the end of 1958 :—

Classification	*Number*	*Deaths*
Manic depressive psychosis	95	1
Schizophrenia	132	2
Mental defective	14	..
Delusions	2	..
Epilepsy	13	..
Senility	22	3
Spastic	3	..
General Paralysis of the Insane	4	..
Involutional Melancholia	2	..
Idiocy	7	..
Psychosis with Arteriosclerosis	3	..
Alcoholism	4	..
Hysteria	1	..
Not yet diagnosed	4	1

7. The racial distribution and sex of patients was as follows :—

	Males	*Females*	*Total*
Europeans	9	9	18
Fijians	39	24	63
Indians	104	98	202
Others	16	7	23
	168	138	306

8. The deaths which occurred at the institution were from the following causes in the following classes :—

General Condition	*Cause of Death*
Senility	Infective Hepatitis
Senility	Cerebral thrombosis, Hypertension
Senility	Cardiac failure
Schizophrenia	Pulmonary tuberculosis
Schizophrenia	Amoebic dysentery
Manic depressive	Pulmonary tuberculosis
N.A.D.	Cardiac failure.

9. The following table shows the nationality and sex of various patients :—

	Europeans		Fijians		Indians		Others		Total		Total
	M	F	M	F	M	F	M	F	M	F	M & F
Remaining at end of 1958 ..	7	8	22	14	66	55	12	7	107	84	191
Admitted during 1959	2	1	17	10	37	43	5	..	61	54	115
											306
Absent on trial during 1959 ..	1	2	6	13	22	26	5	1	34	42	76
Discharged in 1959	1	1	2	..	6	..	1	..	10	1	11
Died during 1959	..	..	2	1	3	..	..	1	5	2	7
Remaining at the end of 1959 ..	7	6	29	10	72	72	11	5	119	93	212
											306
Total number absent on trial including those absent on trial during 1959	10	10	35	41	66	85	13	2	124	138	262

10. Forty-four patients received electro-convulsive therapy.

11. Quarterly visits were paid by the Board of Visitors.

12. Gifts to the institution were made as follows :—

(*a*) Dr. Williams and Mrs. A. Bernard, soft drinks and sandwiches to each patient after monthly screening of films.

(*b*) British Council—monthly screening of films.

(*c*) Rotary Club—a present of sweets, soap, handkerchief, comb and cigarettes to each patient.

(*d*) Mr. Mangaru, Nabouwalu—a sack of rice.

(*e*) Mr. Sahu Khan—Indian pudding to all patients.

(*f*) Mr. Tommy Dalip Ram, Suva—5 cases Bananas.

APPENDIX VI

CENTRAL LEPROSY HOSPITAL, MAKOGAI, FIJI

The reef-encircled island of Makogai is about three miles in length and six square miles in area. Volcanic in origin, it largely consists of a number of peaks, rising to a maximum height of 876 feet, and leading down to sea level by a series of rocky ridges. The latter divide the more useful land into a number of " flats " stretching inland for varying distances ; and it is these level areas that are utilised for the hospital buildings, outlying villages, gardens, coconut plantations, dairy farm, staff quarters, etc.

2. The main hospital is situated in Dalice Bay, protected by the small islands of Makodroga and Tabaka ; and the men's villages stretch along the shore and into contiguous bays. Almost due south in Nasau Bay lie the dairy farm, bakery, " deep-freeze " meat store and staff quarters, connected to the hospital by a three-mile motor road. A large flat at Takewa on the north of the island is used for gardening by the patients, in addition to suitable areas in the hills above their own villages ; and Vagabia, the next bay, also connected through Takewa with the hospital area and so with Nasau, opens into the largest coconut-bearing area on the island.

3. The Lepers' Ordinance, 1899, gave the Government limited compulsory powers and forbade certain callings to lepers. In the same year a leprosy station was established on the island of Beqa, but for various reasons it proved inadequate, and its 40 inmates were transferred to Makogai in November, 1911.

4. The medical and nursing staff consists of the Medical Superintendent, Missionary Sisters of the Society of Mary and Fijian Sisters of the Little Sisters of Nazareth. In addition to the general nursing in the hospital wards, Sisters visit the villages daily for general inspection and dressings of individual cases ; patients appearing to require further attention or special treatment are referred to the Medical Superintendent for advice or admission to hospital. The Sisters train a number of patients as assistants in the village dressing-room and in the hospital proper. They also carry out dispensing and laboratory work, give anaesthetics and assist at operations; they help with the medical records and the more medical aspects of the clerical work ; they control the issue of rations and run the patients' Co-operative Store as well as the main hospital kitchen. Their duties are, in fact, all-embracing and a very large proportion of any success attained at Makogai is undoubtedly due to their efficiency, versatility and selfless devotion.

5. The various villages each have a " Headman " of their own race who acts as " liaison officer " between patients and staff, and is generally responsible for the cleanliness of his village and the co-operation of his people.

6. The main hospital area is divided into a large women's section and a smaller one for men. The sexes are segregated ; and the only men in the hospital area, apart from the trained " dressers ", are those too sick or crippled to be able to look after themselves, those with acute reactions or other medical conditions, and those admitted for special surgical or other treatment.

7. People living in the villages are therefore comparatively able-bodied. Large areas of land are available for gardening and full advantage of them is taken by the patients.

8. Makogai Boy Scout and Girl Guide Groups have been formed among the patients and consist of representatives of all races.

9. During the 48 years of its existence, 3,815 patients have been registered in the Fiji Leprosy Hospital. There have been 1,794 cases of arrest of the disease, 516 repatriations and 1,190 deaths. At the end of 1959, the total number of patients was 317 of whom 268 were from within the Colony. This is the smallest number of patients resident in Makogai since 1926. During the year there were 41 admissions, 131 discharges and 3 deaths. Forty patients—37 Gilbertese, 1 Chinese and 2 Part-Europeans—were repatriated to the Gilbert and Ellice Islands Colony. These figures include one patient who was admitted for investigation but discharged again shortly afterwards when it was determined that she was not suffering from leprosy. Two similar cases in 1958 who were excluded from the figures of that year and one patient who, not being active, was registered but not admitted. The figure of 317 for those still in Makogai consists of 315 registered cases and 2 healthy babies of patients.

10. One hundred and thirty-one is, once again, the highest number ever discharged from Makogai in a single year. Three deaths is the lowest number ever recorded. It is of interest to note that, during the past four years, 404 patients have been discharged. Evidence is, however, accumulating that matters are now beginning to stabilise. It is likely that henceforth the number of patients discharged annually will be approximately the same as the number admitted. It would seem, therefore, that the patient population of Makogai will remain at about 300 for several years to come.

11. The patients actually in Makogai on 31st December, 1959, were divided racially as follows :—

Fijians	105
Indians	127
Europeans and Part-Europeans	13
Chinese and Others	72
	317

12. *Establishment*—The staff of the hospital consists of the following :—

Senior Medical Officer (Medical Superintendent)
Local Superior and 17 Sisters of the Missionary Sisters of the Society of Mary
Sisters of the Little Sisters of Nazareth (5)
Executive Officer
Class III Clerk
Supervisor (Mechanical)
Overseer (Stock, Farm and Labour)
Sergeant, Corporal and 3 Police Constables
Master of a.k. *Makogai* and 4 members of crew
Labourers (14).

The Medical Superintendent also acts as Sub-Accountant, Postmaster and Magistrate. He maintains a daily surgery for members of the staff and their families. During 1959, a total of 2,995 patients was seen and there were 2 confinements.

13. *Staff Changes*—The Medical and clerical staff remained unchanged during 1959. The following changes took place among the Sisters :—

Departures—

Sister Mary Prisca transferred to Chatham Islands as Matron in June.
Sister Mary Scott transferred to St. Elizabeth Home to replace Sister Mary Siena in July.
Sister Mary Keran transferred to New Zealand in September.

Arrivals—

Sister Angelica returned from leave in the U.S.A. in January.
Sister Mary Fidelis transferred from New Zealand (re-appointed to Makogai after an absence of 25 years) in February.
Sister Maria Goretti was appointed from U.S.A. in March.
Sister Mary Siena transferrred from St. Elizabeth Home in July.
Sister Mary Monica transferred from Nailili in September.

14. *Teaching*—A.M.O. Semise Fonua from Tonga, spent six weeks in Makogai in October/November, undergoing a refresher course in leprosy.

15. No medical student visited Makogai during the year, but the Medical Superintendent gave a course of lectures in the Central Medical School and exhibited some cases at St. Elizabeth Home. This new departure seemed most successful as it occupied less of the students' time and it is now easier to find new and untreated cases at St. Elizabeth Home than in Makogai.

16. *Statistics*—The classification used at Makogai is based on the Madrid classification but is a simplification of it. Cases are divided as follows :—

Tuberculoid 1	..	Cases with a few macules and minor disturbances of sensation only (i.e. maculo-anaesthetic leprosy)
Tuberculoid 2	..	Cases with infiltrated leprides and/or thickened or painful nerves (i.e. infiltrated tuberculoid leprosy)
Tuberculoid 3	..	Cases of tuberculoid leprosy with deformaties or trophic lesions
Lepromatous 1	..	Cases with macules or with no skin lesions but with positive smears (i.e. macular lepromatous leprosy)
Lepromatous 2	..	Cases with lepromata and/or nodules (i.e. infiltrated lepromatous leprosy)
Lepromatous 3	..	Cases of lepromatous leprosy with advanced skin lesions, lesions of mucous membranes or eyes and with or without neuritic signs
Dimorphous T/L	..	Dimorphous cases indicative of tuberculoid rather than lepromatous leprosy.
Dimorphous L/T	..	Dimorphous cases indicative of lepromatous rather than tuberculoid leprosy.

17. The total number of admissions over the last five years divided into the above classes were as follows :—

	1959		1958		1957		1956		1955	
Total No. of Admissions ..	41		38		49		60		45	
Adults	33		29		42		43		39	
Children (under 14)	8		9		7		17		6	
Tuberculoid 1	11		6		16		13		9	
2	5	20	8	16	11	29	14	28	5	17
3	4		2		2		1		3	
Lepromatous 1	3		5		4		16		7	
2	9	12	9	17	10	14	11	32	19	27
3	..		3		..		5		1	
Dimorphous L/T	4		2		3		..		..	
T/L	5		3		3		..		..	

18. The rate of admissions continues to be steady but unspectacular. There is no evidence of leprosy being eradicated in Fiji in the near future. On the other hand, the proportion of children being admitted continues to decline which is encouraging. The proportion of tuberculoid cases admitted also continues to increase and in 1957 and 1959 they exceeded the lepromatous cases. This is definite evidence of an increasing level of resistance to leprosy among the population.

19. It is of interest too that, among the tuberculoid cases, the majority come early. This is presumably because the sensory changes lead them to seek medical advice. But the majority of lepromatous cases do not come until their disease has advanced well into the infiltrated stage. They are, therefore, much longer in hospital as a rule.

20. The progress of the various patients divided by classification, is shown below :—

	T1	T2	T3	L1	L2	L3	DT/L	DL/T
Improved	46	27	7	83	58	10	6	5
Stationary	17	14	5	74	55	8	4	2
Worse	..	1	..	8	11	2	1	..

21. As in former years, this table includes all those cases discharged during the year who are shown as having improved and also those admitted during the year all, except the very earliest, of whom are shown as stationary. The proportion of lepromatous to tuberculoid cases remains almost unchanged at the very high level of 2·55 to 1. It is interesting to note that only one tuberculoid case did not improve as compared with 21 lepromatous cases. The improvement rate of tuberculoid cases, too, is slightly higher than that of the lepromatous ones, being 0·59 as against 0·48.

22. The racial division of discharges and deaths is as follows :—

Discharges—All patients notified as suffering from leprosy—

1. Fijians	32
2. Indians	64
3. Europeans and Part-Europeans	5
4. Chinese and Others	30
Total ..	131

Deaths—

1. Fijians	1—Ureamia, Chronic Nephritis
2. Indians	2—(*a*) Aplastic anaemia
	(*b*) Hyperglycaemic coma, Diabetis Mellitus
Total ..	3

23. Diamino-diphenyl-sulphone (DDS) remained the standard treatment during the year under review. The customary maximum dosage remained at 400 mg. twice weekly. A trial was made of the comparative efficacy of the drug given by mouth with it given parenterally in the same dosage. The patients taking part in the trial were all inactive cases but with persistently positive skin smears. After year's study it was concluded that, in this sort of case, there is no value in giving the drug by injection as the results were not better than when it was given by mouth.

24. There seems, however, no doubt that, in the acute lepromatous case, parenteral administration is the better method. The drug is far better tolerated and the incidence of lepra reaction is much less. Patients who suffer from dyspepsia too, often ask to be given their DDS by injection.

25. *Research*—The number of patients remaining in Makogai has now reached such a low level that it is becoming increasingly difficult to obtain a sufficient number in approximately the same stage of the disease to carry out any worthwhile clinical trials.

26. A small pilot trial of two new drugs in the treatment of leprosy was held during the year. The first of these was a drug known as Etisul or ETIP prepared by Imperial Chemical Industries. It consists of Diethyl Dithiolisophathalate which is a pale yellow oily liquid with an offensive garlic-like odour. It is put up in a scented cream for inunction. Each pack consists of a tube of 5 grammes of ETIP in about 5 cc of cream. The whole tube is rubbed into the body and this is done twice a week. Some three hours later the subject washes, using scented soap to remove the surplus cream.

27. On approaching Imperial Chemical Industries with a request for information about the drug, the Medical Superintendent was most generously provided, by the firm, with a free sample of 300 tubes of Etisul. A further 150 tubes were later purchased.

28. In the first instance, seven patients representing different types of leprosy and degrees of activity were placed under treatment. Later, another batch of sixteen newly admitted patients were tried on the drug for the first four months of their period in hospital.

29. All patients reacted most strongly to the smell of the drug and protested vociferously and vehemently against being made to use it. Their fellow patients objected to having to associate with those on Etisul stating that they could not sleep in the same ward with them at night.

30. Toxic effects were few. One patient developed an itchy morbilliform rash which was not improved by antihistamines. He had to be taken off the drug before it disappeared. Routine blood films revealed toxic granules in the leucocytes of all the patients, but this was not accepted as being of any great significance. Many of the patients complained of malaise and anorexia but this may have only been an excuse to be taken off the drug.

31. So far as the results of the trial were concerned the medical authorities were most dis appointed. Not one of the patients on the drug seemed to improve in any way. The incidence of lepra reaction was not reduced. The bacilli showed no evidence of degeneration. The bacterial indices were not noticeably reduced and at least one patient's index increased from 2 plus to 4 plus.

32. It is appreciated that the number of patients taking part in the trials was very small but two four-month trials were made and the results were so poor and the patients' objections to the drug were so great, that it was not thought worthwhile persevering any longer. Etisul does not appear to exhibit in inhabitants of the South Pacific the effects claimed for it among Africans. Details of this trial may be obtained upon request to the Medical Superintendent of the Fiji Leprosy Hospital.

33. The other drug which was experimented with during the year was CIBA–1906, otherwise known as DPT. It is a thiourea derivative and is put up in tablets of 0·5 gramme. The usual dose used here is 2·0 gm. daily.

34. In the first instance, eight patients were given the drug. All were patients whose leprosy was inactive but who were persistently positive on bacteriological examination. They were given no other drug during the trial which lasted for 9 months. The immediate response was very satisfactory as every one of the patients became bacteriologically negative within 3 months. In 6 months, however, all but two of them became slightly positive again. There were no toxic effects at all. None of the patients reported any side-effects other than increased appetite.

35. It was concluded from this very small trial that, in DPT, we had a drug of an efficacy at least comparable with that of DDS. Further supplies of the drug were ordered but did not arrive until late in the year. A large scale trial of the effects of DPT in combination with DDS in this particular type of patient with an equal number of controls on DDS alone was commenced in December. The results will be reported in due course.

36. *Tuberculosis*—All patients undergo routine chest X-ray on admission and again at intervals of 3 years. During the year, two new cases were admitted from Tamavua. One patient was discharged from the tuberculosis ward during the year.

37. At the end of the year there were four patients undergoing treatment for pulmonary tuberculosis and there were forty patients whose chest X-rays were sufficiently abnormal to warrant their being checked at more frequent intervals—usually every 6 months.

38. *X-ray and Physiotherapy Departments*—The decreasing number of patients was represented by a slight decrease in the amount of work done in these two departments. Three hundred and sixty-seven X-ray pictures were taken. Two thousand six hundred and forty-seven sessions of exercises were supervised and 5,274 patients underwent various forms of electrotherapy with or without massage.

39. The Sister in charge of these departments also took 841 photographs of patients for record purposes.

40. Eighty-four operations were performed during the year and they fell into the following groups :—

Incision of abscess	4
Excision and scraping of trophic ulcer	9
Excision of sebaceous cyst	10
Manipulation of shoulder under G.A.	3
Enucleation of toe-nail	6
Removal of ganglion from foot	1
Removal of needle from hand	2
Injection of varicose veins	1
Cauterisation of uterine cervix	1
Dilatation and Currettage	1
Excision of keloid from upper lip	1
Excision of scar (and skin grafting thereof)	1
Plastic operation of ears	10
Plastic operation of eye-lids	4
Circumcision	6
Amputation of digit	16
Herniorrhaphy	1
Radical cure of hydrocele	1
Appendicectomy	6
	84

41. *Dentistry*—The following work was carried out by the Sister in charge of the dental department with the assistance of a visit from a Dental Officer who spent about three weeks in Makogai :—

Extractions		423
Fillings		228
Scalings		108
Treatment of gums, etc.		197
Dentures (partial and complete)		26
	Complete	9
	Complete Uppers	7
	Partials	10

42. *Laboratory*—The laboratory was kept busy during the year with ordinary "clinical sideroom" work and routine haemoglobin checks. In addition 4,487 skin smears were taken, stained and examined for mycobacterium leprae.

43. *Occupational Therapy*—The year under review saw all the hospital buildings re-painted on the exterior and all the roofs painted. Painting of the interiors was being commenced at the end of the year. The staff ward for those who are not suffering from leprosy was extensively altered and repaired. Various minor repair jobs were carried out as usual and all the educational recreational activities of the hospital continued to flourish.

44. *Lepers' Trust Board*—Two meetings of the Lepers' Trust Board (Fiji) Incoporated were held in Makogai during the year.

45. The usual supply of gift boxes and films continued to arrive from New Zealand.

46. The store supplied by the Board was completed early in the year. A new Ford lorry was provided for the use of the patients.

47. The Board's financial generosity to both patients and ex-patients continued at its customary high level. It is, indeed, difficult to imagine what Makogai would be like without the generosity of the Lepers' Trust Board.

48. *Visitors*—Makogai was, as usual, visited by a large number of people during the year under review. One hundred and twenty-three persons signed the Visitors' Book and a considerable number of others left without doing so. Space forbids listing all 123 signatures but the following list, printed in chronological order of visits only, gives an idea of the variety of people who visit the Fiji Leprosy Hospital during a normal year :—

Director of Agriculture
Ven. Archdeacon C. W. Whonsbon-Ashton, Levuka
His Excellency the Governor and Lady Maddocks
Mr. J. Gale, Secretary of the Medical Department
Lolohea Waqairawai, Suva
Miss Rita Snowden, Auckland, New Zealand
Most Rev. Bishop Pearce, Vicar Apostolic of Samoa
Director of Medical Services
Members of the Leper' Trust Board
Party of officers and ratings from H.M.S. *Cook*
Viscount Cobham, Governor-General of New Zealand
Most Rev. Bishop Foley, Vicar Apostolic of Fiji and Rotuma
Mrs. E. Rodger, Colony Commissioner, Girl Guides Association
Dr. Wilson-Rae, Medical Adviser to the Colonial Office
Deputy Director of Medical Services
Members of the Sergeants' Mess, R.N.Z.A.F. Station, Laucala Bay.

49. The last visitors mentioned above paid their customary visit just before Christmas. During the year they presented a large radiogram to the hospital and, not content with that, they handed the Medical Superintendent a cheque for no less than £125 during their visit.

50. Work began in July on the installation of the new electricity generating system. By the end of the year most of the concrete pylons were *in situ* from Nasau to Sogotokalau beyond the hospital. The work is being carried out by the Public Works Department labourers under the supervision of a leading hand.

51. Climatically the year was average. The drought ended but there was no surplus of water. No hurricane visited Makogai during the year.

52. In conclusion, it gives great pleasure once again to place on record a debt of gratitude to the Sisters and lay-staff of the hospital for their unfailing help and cheerfulness, and to the patients who have given nothing but co-operation and continuous help in the task of healing and comforting them.

APPENDIX VII

ST. ELIZABETH HOME—KOROVOU, SUVA

Discharged cases from Makogai housed until transport was arranged to their various destinations in and outside the Colony :—

	Male	*Female*	*Total*
Fijians	24	9	33
Indians	51	13	64
Cook Islanders	2	..	2
Gilbertese	2	1	3
Solomon Islanders	1	2	3
Tongans	6	1	7
Rotumans	3	1	4
Chinese	1	..	1
Samoans	4	3	7
Niue Islanders	2	..	2
Euronesians	3	1	4
	99	31	130

2. Patients housed pending removal to Makogai :—

	Male	*Female*	*Total*
Fijians	13	7	20
Indians	20	2	22
	33	9	42

3. Patients on survey, treatment or other matters, housed during the year :—

	Male	*Female*	*Total*
Fijians	33	17	50
Indians	29	51	44
Solomon Islanders	1	4	5
Chinese	3	1	4
Rotumans	..	2	2
Euronesians	6	1	7
Samoans	1	..	1
Niue Islanders	1	..	1
	74	40	114

4. Total number of discharged patients from Suva, Rural and Urban, during 1959 :—

	Male	*Female*	*Total*
Suva Urban	6	5	11
Suva Rural	7	1	8
	13	6	19

APPENDIX VIII

DENTAL DIVISION—MEDICAL DEPARTMENT

The activities of the Dental Division fall into three main categories :—

(1) Training of Dental Personnel (see Central Medical School—Appendix X)
(2) Provision of Dental Treatment
(3) Dental Health Education and Preventive Dentistry.

(2) Provision of Dental Treatment

(a) Suva Dental Clinic

2. This clinic has 9 chairs in the main surgery and a theatre for surgical operations together with 3 offices, a laboratory, a waiting room, a dark room, a lecture room and toilets. It serves as administrative headquarters for the dental division and also as dental school.

3. *Staff—*

D. M. Ellerton, B.D.S.	Senior Dental Officer
I. L. Vosailagi, B.D.S.	Dental Officer
Mrs. N. H. Palmer, B.A.	Dental Hygienist (part time)
I. Nadakuitavuki	Assistant Dental Officer
D. Singh	Assistant Dental Officer
M. Ligani	Assistant Dental Officer
K. Vatanimoto	Assistant Dental Officer
Sister R. Marais	Nursing Sister
M. Vidovi	Senior Nurse
Madan Pal	Assistant Dental Mechanic
L. Permal	Assistant Dental Mechanic
Susan Pene	Assistant Dental Hygienist
Caroline Miller	Assistant Dental Hygienist
Pushpanjali Madhavan	Assistant Dental Hygienist

Dental Officer A. H. Thomson of the Central Medical School staff, is in charge of conservative dentistry and conducts an orthodontic clinic for school children.

Dental Officer J. L. Godfrey of the Central Medical School staff, is in charge of prosthetic dentistry. Final year students in the course of their clincal training contributed to the treatments carried out.

4. *Treatments provided :—*

Operative—	
Fillings	1,567
Temporary fillings	2,131
Scalings	512
Surgery—	
Extractions—permanent	5,159
deciduous	2,191
Surgical operations	130
General anaesthetics	53
Fractured mandible fixations	33
Radiography—	
Films taken	866
Dentures—	
Complete dentures	92
Full upper or lower	11
Partial dentures	55
Repairs and rebases	69
Orthodontic cases	79
Attendances—	
Adults—Europeans	601
Part-Europeans	448
Fijians	3,167
Indians	2,596
Others	541
Total	7,353
Children—Europeans	1,163
Part-Europeans	776
Fijians	1,462
Indians	3,650
Others	354
Total	7,405
Total Adult and Child Attendances	14,758
Total Revenue	£1,441 4s. 11d.

(b) Lautoka Dental Clinic

5. This clinic occupies 2 rooms in the Health Office building. It is equipped with an electric unit and a hydraulic chair. An X-ray machine was added late in the year. The clinic was operated during the year by Assistant Dental Officer Pillai and Assistant Dental Hygienist Eunice Prasad. Dental tours were made to schools in Korovuto, Sabeto, Malamala, Malolo, Waya, Naviti, Yaqeta, Nasomolevu, Nacula and Vatulele.

6. *Treatments provided—*

Permanent fillings	1,301
Temporary fillings	372
Extractions	4,338
Surgical operations	6
General anaesthetics	17
Fractured mandible fixations	15
Scalings	148
Radiography	33
Adult attendances	1,816
Child attendances	4,443
Schools visited	10
Total revenue	£563 5s. 0d.

(c) Labasa Dental Clinic

7. This clinic is housed in a small building adjacent to the hospital and is equipped with an electric unit and hydraulic chair. It was operated during the year by Assistant Dental Officer L. Narayan and Assistant Dental Hygienist Ana Kasami. Dental tours were made to schools in other parts of Vanua Levu and Taveuni.

8. *Treatments provided—*

Permanent fillings	1,033
Temporary fillings	183
Extractions	3,441
Surgical operations	40
General anaesthetics	15
Fractured mandible fixations	4
Scalings	47
Adult attendances	1,418
Child attendances	1,810
Schools visited	23
Total revenue	£430 0s. 0d.

(d) Levuka Dental Clinic

9. This clinic is housed in the Divisional Medical Officer's office building and is equipped with an electric unit and hydraulic chair. It was operated during the year by Assistant Dental Officer J. Savou. Tours were made during the year to schools in Gau, Batiki, Nairai, Koro, Moturiki, Lakeba and Kadavu.

10. *Treatments provided—*

Permanent fillings	491
Temporary fillings	144
Extractions	998
Surgical operations	4
General anaesthetics	4
Scalings	187
Fractured mandible fixations	....
Radiography	1
Adult attendances	347
Child attendances	1,022
Schools visited	14
Total revenue	£84 0s. 0d.

(e) Ba Dental Clinic

11. This clinic was opened in the dispensary at Nailaga Hospital on the 1st December. Portable dental equipment has been used, as no electricity is available. It is intended that the clinic should act primarily as a headquarters for school dental activity in the Ba district. With this in mind, the Dental Division land rover, previously used for visits to schools in Suva, has been sent to Ba to provide Dental Officer K. Vatanimoto with transport.

12. *Treatments provided—*

Permanent fillings	1
Temporary fillings	4
Extractions	220
Scalings	5
Surgical operations	1
Adult attendances	166
Child attendances	36
Total revenue	£8 10s. 0d.

(f) Mobile Dental Clinic

13. This vehicle, donated by the Colonial Sugar Refining Company, is fitted with 2 electric units and hydraulic chairs. Power is supplied by a generator trailer towed behind the vehicle and water is carried in tanks. The clinic visits schools in Viti Levu. This year much conservative dental treatment (fillings) has been given, especially to those schools in which daily toothbrushing is being carried out. As a result of this policy, more time was spent at each school visited so that by the end of the year, the Mobile Clinic had not completed the full circuit of the island.

14. *Treatments provided—*

Fillings	2,989
Extractions	13,831
Scalings	503
Schools visited	154

(*g*) *Travelling Dental Teams*

15. During the year an Assistant Dental Officer, accompanied by an Assistant Dental Hygienist, using the Dental Land Rover and portable dental equipment, visited those schools in the Suva districts which had instituted daily toothbrushing. This was in keeping with the Department's policy to direct limited facilities for the provision of dental treatment to those schools where it is likely to do the most good. In addition, field tours were made to the Yasawas, Kadavu and Makogai.

(*h*) *Tamavua Dental Clinic*

16. An Assistant Dental Officer attended this clinic on Saturday mornings.

17. *Treatments provided—*

Fillings	109
Temporary fillings	55
Extractions	515
Scalings	29
Surgical cases	35
Adult Attendances	399

(*i*) *Rural Dispensaries*

18. Each dispensary throughout the Colony is equipped with a basic set of dental forceps to enable the Assistant Medical Officers to extract diseased and aching teeth. Notes on local anaesthesia and extraction of teeth are supplied to each Assistant Medical Officer.

(3) Dental Health Education and Preventive Dentistry

19. Dental health education talks were delivered in each school visited by the Mobile Clinic and travelling dental team.

20. The outstanding features of activity in the sphere of preventive dentistry was the rapid expansion of the scheme to introduce daily toothbrushing in schools. Stocks of toothbrushes were imported from England and these are made available to schools at 3d. each, which represents the landed cost after allowance for duty and freight.

21. Each child must pay for this own brush. Schools will not be supplied with these low cost toothbrushes unless the number ordered covers the full certified enrolment. Every child must participate in the scheme. If any child should lose or destroy his brush it must be replaced by a purchase from a shop.

22. The brushes are to be kept at school and the teeth brushed once a day, preferably after the mid-day meal, and under the supervision of the teacher on duty. Toothpaste is not advocated because of the cost.

23. A new issue of brushes will be supplied each year upon application by the head teacher. The number supplied will be restricted to the next whole dozen above the certified enrolment of the school. Upon receipt of a new brush, the old one may be taken home—but not before—unless the child leaves school.

24. Schools have been urged to purchase toothbrush cabinets in which to keep the brushes in a tidy and hygienic fashion. These cabinets, which are screened, with nylon gauze to provide fly-proof ventilation, are made to a standard design especially for the Dental Service. They are low priced, strongly constructed, attractive in appearance and each cabinet is fitted with a lock. The size and prices are as follows :—

	£	s.	d.
104 brush cabinet	3	16	6
60 brush cabinet	2	15	6
48 brush cabinet	2	4	0
36 brush cabinet	1	17	6

72 schools have purchased a total of 230 of these cabinets.

25. Where possible, the cabinets have been delivered, free of transport charges, to the nearest Medical Stations.

26. The cheapest, easiest and most effective form of preventive dentistry is regular and efficient toothbrushing. Provided headmasters can develop and maintain an interest in this new scheme, it being supported by the dental health talks given to each school visited, the Department's operative plan is to :—

(*a*) explain the need for dental health
(*b*) foster the urge
(*c*) provide the means—toothbrushes
(*d*) demonstrate the method
(*e*) establish the habit by daily toothbrush drill
(*f*) improve the effectiveness.

27. By the end of the year, 176 schools had introduced daily toothbrushing and a total of 33,000 brushes had been sold.

APPENDIX IX

PATHOLOGICAL DIVISION

Staff—The Pathologist and Laboratory Superintendent were present throughout the year.

2. Ramswami Mutialu, who had been appointed as Chief Laboratory Assistant in accordance with the policy of appointing suitably trained local candidates to senior posts, resigned in March.

3. The trained local staff consisted of three Senior Laboratory Assistants, one stationed at Lautoka, and five Assistants, one on study leave in Australia. One student from Fiji and two from other territories passed their qualifying examinations in July. The one from Fiji was appointed a Laboratory Assistant and the others returned to their territories, one to Niue and the other to American Samoa.

4. *Students*—Six students, four from Fiji and two from Papua and New Guinea, continued their course ; while five students, one only from Fiji, commenced their three-year course in 1959. The territories from which these students came are Papua and New Guinea two ; Solomon Islands one ; and Gilbert and Ellice Islands one.

5. There are now only five students from Fiji in training as Assistants. The policy of not increasing their number is putting off indefinitely any possibility of expanding the laboratory services to hospitals in the out-lying districts, as was visualised when the scheme of training for Laboratory Assistants was started.

6. This report shows a very marked increase in the work required of the Central Laboratory. The present students when qualified will be hardly enough to maintain the present standard of work without any question of expansion of work either in the Central Laboratory or in other stations.

7. The recommended appointment of an A.M.O. to act as Assistant to the Pathologist was again not carried out in 1959. This appointment should be regarded as a necessity.

8. The staff worked loyally and well during the year as is proved by the amount of work accomplished.

9. The Laboratory supplies a 24-hour service. An Assistant is always on call for emergencies outside normal working hours. The number of hours during the year worked by the Assistants on call out of normal working hours was 885 hours, or an average of 17 hours a week. This does not include time worked to finish each days work at the end of the day after normal closing time. This was a common occurrence for all members of the staff, whether on emergency call or not.

10. *Blood Transfusion Service*—The main event of the year was the building and equipping of and extra room at the Laboratory for the use of blood donors only, which was opened by Dr. Wilson Rae, C.M.G., the chief Medical Adviser to the Colonial Office, during his visit to Fiji. This room is equipped with two couches and a separate sitting space, shut off from the working space, for donors. This has improved the comfort of blood donors very considerably, It is fitted with a refrigerator with a self-registering electric thermometer and automatic defrosting switch.

11. The number of pints of blood collected was 964, compared with 784 last year.

12. The number of transfusions is increasing so much that the present list of voluntary donors for both the Blood Bank and Emergency Service is not sufficient to maintain the service completely. It has still to depend a great deal on patient's friends and relations. A continual drive and repeated propaganda for donors is necessary.

13. As the Blood Transfusion Service is expanding the provision of extra staff for this service will soon be a necessity. Bleeding and testing of blood from donors is now carried out by the Laboratory staff in addition to other duties.

14. *Routine Diagnostic Examinations*—These examinations comprised the main work of the division. The total examinations carried out was 62,000, which is considerably higher than any previous year. The number of specimens examined over the years is shown below :—

1939	.. ..	7,060	1940	.. ..	7,930
1941	.. ..	19,971	1942	.. ..	17,123
1943	.. ..	25,784	1944	.. ..	29,500
1945	.. ..	33,041	1946	.. ..	27,149
1947	.. ..	26,291	1948	.. ..	27,557
1949	.. ..	27,570	1950	.. ..	29,742
1952	.. ..	26,348	1953	.. ..	24,527
1954	.. ..	33,469	1955	.. ..	42,487
1956	.. ..	44,470	1957	.. ..	49,552
1958	.. ..	44,644	1959	.. ..	62,000

As mentioned earlier in this report, this increase has been accomplished in spite of a lack of any increase in staff, but the strain on the staff from the Pathologist down to the cleaners, who have to cope with cleaning extra glassware, etc., and the clerical staff who have to cope with reports, is such that, either an increase in staff by training more students, for which there is no lack of suitable applicants, is an essential or the amount of work required must be cut down. Each new Specialist appointment and expansion of hospital standards of necessity increase demands on the ancillary services, for which no corresponding increase in staff has been provided.

15. *Teaching*—The Pathologist continued the teaching of general pathology, bacteriology, clinical pathology and forensic medicine at the Central Medical School, and with senior members of the Laboratory staff, gave lectures to the laboratory students to supplement their bench training. The Pathological Museum was added to and catalogued by the end of the year and now contains 324 mounted specimens for teaching. The facilities for microscopical examinations in pathology and bacteriology for medical students is still not adequate and need expanding. In addition to lectures, the medical students work in the Laboratory for two short periods during their clinical years.

16. *Post-mortem Examinations*—One hundred and sixty-three post-mortem examinations were carried out, 72 were for the Police.

17. The chief causes of death found were :—

Unnatural Deaths—	
Injuries from accidental falls	2
Drowning	7
Traffic accidents	11
Suicide by burning	1
Suicide by hanging	8
Electrocution	1
Boxing—Cerebral haemorrhage	1
Homicide—Suffocation and rape	1
Sharp instruments	2
Assault and fall	1
Burning	3
Natural—Adults—	
Cardic-vascular degenerations and results	21
Valvular heart lesions and results	3
Tuberculosis	5
Acute and Chronic nephritis	8
Hepatitis	4
Acute infections	21
Malignant tumours	6
Haemorrhage—Gastric ulcer	1
Cirrhosis of liver	1
Still Births and Neonatal Deaths—	
Intra-cranial haemorrhage (tentorial tears)	5
Congenital defects	6
Atelectasis	3
Hyaline membrane	1
Acute infections	3
Prematurity	1
Maternal Deaths—	
Post partum shock	1
Rupture of uterus	1
Eclampsia	1
Post-caesarian collapse	1
Infants and Children—	
Generalised tuberculosis	3
Acute infections	9
Congenital defects	4

18. *Special Examinations*—During the year, equipment for electrophroesis of serum proteins was received. The results of routine serum protein examinations are analysed in Table II and show many with high levels due mainly to a high globulin fraction. It is hoped to investigate this further in the future.

19. *Haemaglobin Values*—Estimations of haemaglobin increased very much during the year. This examination is carried out as a routine on practically all patients entering hospital, all applicants for Government employment of any kind, and the Ante-Natal Clinic so that the results include a large cross section of the population, both sick and well. The proportions of values found are shown in detail in Table II, which shows that 64 per cent of those examined had haemaglobin values of 70 per cent or over and 36 per cent below that figure. A photo-electric method of estimation was used.

20. *Branch Laboratory—Lautoka*—A total of 20,082 examinations were carried out at this branch Laboratory, which was staffed during the year by one Laboratory Assistant and a cleaner. This is obviously inadequate and extra staff for this branch is essential, but not available.

21. Details of examinations carried out are shown in Table III.

TABLE I

CENTRAL LABORATARY, SUVA

Details of specimens, etc., examined during 1959

1. Histology—			
Material from biopsies, etc.		1,440	
autopsies		198	
			1,638
2. Haematology—			
Blood counts—			
White cell counts		3,972	
Differential counts		4,740	
Separate Eosinophile counts		2	
Red cell counts		787	
Indices		772	
Haemoglobin estimations		12,792	
Blood sedimentation rates		2,663	
Blood grouping		4,620	
Rh grouping		75	
Donors bled for transfusion		964	
Pre-transfusion cross matching		1,244	
Reticulocyte counts		901	
Marrow smears		49	
Bleeding time		65	
Clotting time		65	
Platelet counts		35	
Fragility tests		1	
Prothrombin index		249	
Coombs test		4	
L.E. cells		1	
			34,001
3. Seminal Fluid—			
Examination for fertility		85	
			85
4. Parasitology—			
Faeces—			
Microscopic		4,678	
Blood—			
Films for malaria		36	
Microfilarial		325	
			5,039
5. Bacteriology—			
Microscopic examinations —			
Vaginal, urethral and cervical smears		523	
Sputum		786	
Skin lesions for M. leprae		402	
Skin lesions for fungus		107	
Gastric washings		47	
Dark ground for treponema		2	
			1,867
Cultures—			
Gastric washings foa M.tuberculosis		47	
Sputum for M. tuberculosis		155	
Faeces for M. tuberculosis		1	
Other organisms		437	
Urine for M. tuberculosis		59	
Other organisms		721	
Blood		124	
Throat swabs		525	
			2,069
Cerebro-spinal fluid—			
For M. tuberculosis		28	
Other organisms		438	
			466
Miscellaneous, exudate pus, etc.—			
For M. tuberculosis		75	
Other organisms		978	
			1,053
Bacteriological examination of water, etc.—			
Drinking water supplies		611	
Sea baths		33	
Milk		6	
Butter		1	
			651
6. Serology—			
Agglutination tests		108	
Kahn Reactions		2,883	
Anti-streptolysin O titres		48	
			3,039
7. Vaccine Prepared—			
T.A.B. 50 c.c. bottles		1,258	
			1,258
8. Biochemistry—			
Estimations in blood and serum—			
Sugar		460	
Non-protein nitrogen and urea		831	
Cholesterol		73	
Uric acid		27	
Van den Bergh reactions		318	
Bilirubin estimation		303	
Thymol turbidity test		321	
Alkaline phosphatase		329	
Calcium		7	
Phosphorus		110	
Diastase		5	
Proteins—total and fractions		306	
Acid phosphatase		43	
Chlorides		142	
Sodium		138	
Potassium		137	
			3,550
Urine—			
Routine and microscopical examinations		4,923	
Excretion of ascorbic acid		8	
Bile and Urobilin, etc.		20	
Diastase		1	
Chlorides		18	
			4,970
Cerebro-spinal fluid—			
Cytology		420	
Protein		438	
Sugar		438	
Chlorides		438	
			1,734
Faeces—			
Occult blood		184	
Fat		5	
Stercobilin		5	
			194
Functional tests—			
Fractional test meals		42	
Histamine tests		34	
Glucose tolerance tests		68	
Urea concentration tests		2	
Electrophoresis of protein		2	
			148
9. Animal Inoculations—			
Toads for pregnancy tests		145	
			145
10. Rats—			
For plague		26	
			26
11. Forensic Medicine—(Other than autopsies)—			
Clothing for stains (blood and seminal stains)		139	
Weapons for blood		9	
Vaginal swabs for spermatozoa		17	
Various		28	
			193
12. Post Mortem Examinations—			
Police		72	
Colonial War Memorial Hospital		56	
Maternity Annexe		22	
Tamavua Tuberculosis Hospital		7	
Mental Hospital		4	
Others		2	
			163
Total			62,289

TABLE II

CENTRAL LABORATORY, SUVA

Principle Positive Findings, 1959

1. Histology—		
Acute inflammations	149	
Chronic inflammations, non-specific	34	
Tuberculosis	28	
Leprosy	12	
Hyperplasia—		
Endometrium	60	
Prostate	43	
Breast	3	
Tonsils	18	
Products of conception	59	
New Growths—		
Benign	147	
Malignant	135	
Hodgkins lymphadenoma	4	
Lichen planus	1	
Rheumatic heart	2	
		695
2. Haematology—		
Haemaglobin values (14·6 gm. = 100%)		
91% and over	1,265	
81—90%	2,729	
71—80%	4,145	
61—70%	2,249	
51—60%	1,228	
41—50%	797	
31—40%	217	
30% and under	162	
Red cells, alteration in morphology—		
Anisocytosis	239	
Poikilocytosis	226	
Nucleated Red cells	76	
Polychromasia	35	
Long bleeding time	7	
Long clotting time	5	
Low platelet count	5	
White Cell Counts—		
Neutrophile Leucocytosis	463	
Lymphocytosis	57	
Eosinophilia	516	
Monocytosis	13	
Leukaemia	11	
		14,445
Marrow smears—		
Primitive normoblastic erythopoesis	9	
Normoblastic erythopoesis	24	
Megaloblastic erythopoesis	18	
Blood Groups—		
Group "A" : Europeans	176	
Fijians	590	
Indians	607	
Others	72	
Group "B" : Europeans	49	
Fijians	149	
Indians	808	
Others	36	
Group "O" : Europeans	209	
Fijians	698	
Indians	819	
Others	95	
Group "AB" : Europeans	10	
Fijians	86	
Indians	197	
Others	19	
		4,671
3. Seminal Fluid : Fertility Test—		
Aspermia	7	
Low counts	2	
		9
4. Parasitology—		
Faeces microscopic—		
Ova of Ankylostoma	1,125	
Ascaris lumbricoides	234	
Trichuris trichiuria	135	
Interobius vermicularis	33	
Strongyloides larvae	134	
		1,661
Cysts of Ent. histolytica	20	
Ent. coli	103	
Giardia lamblia	54	
Iodamoebae butschlii	20	
Hymenopolis Nana	1	
Protozoa—vegetative Ent. histolytica	2	
Urine trichomonas	34	
Blood—Malaria parasites—		
P. vivax	6	
Microfilaria	33	
		253
5. Bacteriology—		
Films—		
Vaginal and cervical smears, N. gonorrhoea	4	
Trichomonas vaginalia	4	
Urethral smears (male) N. gonorrhoea	45	
Sputum—		
Mycobacterium Tuberculosis	19	
Skin M. leprae	19	
Nasal smear M. leprae	5	
Skin for fungus positive	40	
Pediculus corporis	1	
Sancoptis scabei	1	
Cultures—		
M. tuberculosis grown in—		
Sputum	1	
Urine	2	
Pus and fluids	1	
Tissues (Endometrium)	1	
General cultures—		
Urine—B. coli	87	
Pseudomonas aeruginosa	19	
Staph. pyogenes	53	
Haemolytic streptococci	7	
B. Proteus	14	
Blood—Haemolytic streptococci	1	
Salm. typhi	1	
Staph. pyogenes	2	
Strep. viridans	1	
Faeces—Staph. pyogenes	4	
Salm. paratyphosum A	3	
Salm. paratyphosum B	1	
Shigella flexneri W	3	
Shigella flexneri type not specified	1	
Pus and fluids, etc.—		
Staphylococcus pyogenes	313	
(penicillin sensitive 156)		
(penicillin resistant 128)		
(untested 29)		
Haemolytic streptococci	45	
Pseudomonas aeruginosa	36	
B. proteus	25	
Bacillus coli	61	
Fredlanders bacillus	2	
Diplococcus pneumoniae	1	
Shigella flexneri (pleural fluid)	1	
Throat and associated regions—		
Haemolytic streptococci	161	
Streptococcus viridans	80	
Staph. pyogenes	65	
Diplococcus pneumoniae	17	
Corynebacterium diphtheriae	10	
Cultures genital tract—		
(Male) N. gonorrhoea	12	
Staphylococcus pyogenes	52	
Pseudomonos aeruginosa	1	
(Female) N. gonorrhoea	3	
Staphylococcus pyogenes	119	
Haemolytic streptococci	26	
Monilia	1	
		1,318
Conjunctival Swabs—		
N. gonorrhoea	3	
Staphylococcus pyogenes	1	
Cerebro-spinal fluids—		
Diplococcus pneumoniae	25	
Haemophilus influenzae	14	
		43

6. Serology—			
Agglutination—			
Diagnostic titres for—			
Salmonella typhi		29	
„ paratyphoid A		2	
„ paratyphoid B		5	
P. proteus X_2		2	
Br. abortus		5	
Kahn Reactions—			
Strong positive—Europeans		3	
Fijians		18	
Indians		13	
Others		3	
Positive—Europeans		2	
Fijians		86	
Indians		30	
Others		2	
Weak positive—Europeans		2	
Fijians		200	
Indians		109	
Others		30	
			541
7. Biochemistry—			
Blood and Serum chemistry—			
High blood urea or non-protein nitrogen		175	
Single high blood sugar		170	
Very low blood sugar		2	
High uric acid		15	
Cholesterol		45	
Serum amylae		1	
Serum Proteins (total)—			
3·5 grams per 100 ml.		7	
4·0 „ „ „		4	
5·0 „ „ „		17	
5·5 „ „ „		34	
6·0 „ „ „		33	
6·5 „ „ „		44	
7·0 „ „ „		52	
7·5 „ „ „		26	
8·0 „ „ „		20	
8·5 „ „ „		10	
9·0 „ „ „		20	
10·0 „ „ „		14	
10·5 „ „ „		12	
11·0 „ „ „		7	
11·5 „ „ „		4	
12·0 „ „ „		1	
14·0 „ „ „		1	
			714
Liver Functions tests—			
Direct positive van den Bergh tests		126	
Indirect		2	
Increased Bilirubin		172	
High thymol turbidity		81	
High alkaline phosphatase		108	
High zinc sulphate turbidity		49	
Urine—			
Protein present		541	
Sugar present		100	
Bile present		34	
Acetone present		20	
Chyle present		2	
Urobilinogen		3	
Porphyrin bodies		1	
Absent ascorbic acid		14	
Deposit blood present—		153	
Casts		246	
Pus present		170	
Cerebro-spinal fluids—			
Xanthochromia		9	
Positive pandy test		65	
Protein increased		58	
Low Sugar		17	
Low Chlorides		1	
Increase in cells—			
Neutrophiles		48	
Lymphocytes		25	
			73
Faeces—			
Occult blood present		153	
Functional tests—			
Glucose tolerance tests diabetic curves		25	
Fractional test meals—			
Achlorhydria		3	
Hyperchlohydria		12	
Histamine test—			
Achlorhydria		5	
8. Animal inoculations—			
Pregnancy tests (toads) positive		51	
9. Forensic Medicine—			
Human blood stains identified—			
Clothing, etc.		32	
Weapons		4	
Leaves, soil, etc.		3	
			2,333
Human seminal stains identified—			
Clothing		9	
Positive vaginal swab for spermatozoa		5	
			14
Total			26,770

TABLE III

BRANCH LABORATORY, LAUTOKA

SPECIMENS EXAMINED

1. Haematology—		
Blood counts—		
White cell counts	1,078	
Differential counts	768	
Red cell counts	195	
Reticulocyte counts	12	
Haemoglobin estimations	6,536	
Haematocrit readings	121	
Blood sedimentation rates	2,073	
Blood grouping	1,804	
Blood bottles cross typed for transfusion	588	
Platelet counts	4	
Bleeding and clotting time	9	
Marrow smears	1	
Fragility tests	5	
	——	13,194
2. Parasitology—		
Stools—		
For worms and ova	912	
Fresh for amoebae	49	
Blood—		
For parasites	125	
	——	1,086
3. Bacteriology—		
Microscopical examinations—		
Urethral and cervical smears	153	
Sputum for tubercle bacilli	2,247	
Gastric washings for ,,	24	
Cerebro-spinal fluid cells	129	
Skin smears for leprosy	165	
Cultures—		
Blood	55	
Stools	42	
Miscellaneous pus, body fluids, etc.	205	
Throat swabs	53	
	——	3,057
4. Serology—		
Agglutination tests	54	
	——	54
5. Biochemistry—		
Estimations in blood and serum—		
Sugar	99	
Urea	158	
Protein	45	
Van den Bergh reactions	107	
Test meals	82	
	——	491
Cerebro-spinal fluids—		
Chlorides	97	
Protein	98	
Sugar	97	
Faeces—		
Occult blood	163	
Functional tests—		
Glucose tolerance tests	41	
Urine—		
Routine	1,583	
Acetone	7	
Bile	70	
	——	2,156
6. Animal inoculations—		
Toads for pregnancy tests	84	
	——	84
Total		20,122

APPENDIX X

CENTRAL MEDICAL SCHOOL

The following table shows the number of students for each course during the past nine years :—

TABLE I

Course	1951	1952	1953	1954	1955	1956	1957	1958	1959
Medical	124	129	123	100	88	86	92	90	89
Dental	23	30	23	31	28	16	14	6	6
Pharmacy	5	9	6	6	6	4	2	4	3
Sanitation	10	20	13	12	7	14	11	16	26
Laboratory	6	12	8	8	10	6	4	6	7
Filariasis and Mosquito Control	14	21	9	8	24	....	....	....	....
X-ray	1	1	3	5	5	1	1	....	2
Dietetics	....	....	....	....	....	2	3	1	2
Total	183	222	185	170	168	129	127	123	135

2. The number of students from each territory at the close of the academic year is shown on the next page:—

TABLE II

Administration	Pre-Medical High School Course		Medical										Dental		Pharmacy		Sanitation		Laboratory		X-ray		Dietetics		Postgraduate		Total	
			I		II		III		IV		V		All Years															
	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959
Gilbert & Ellice Islands Colony	2	..	..	2	3	..	1	3	..	1	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	7	8
B.S.I.P...	2	3	3	2	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	6	8
Niue Island	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	1
Cook Islands	2	4	..	..	..	..	..	..	..	..	1	..	1	1	..	1	1	2	..	..	..	..	..	..	..	..	5	8
Tokelau Islands ..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
American Samoa ..	..	1	2	..	2	1	..	2	..	..	..	..	..	..	..	1	..	1	1	1	..	..	..	..	..	..	5	7
Papua-New Guinea ..	7	12	6	2	3	..	4	2	..	4	2	..	2	1	..	..	..	..	2	4	..	2	..	..	..	..	26	27
Dutch New Guinea ..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Nauru Island	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Tonga	..	..	1	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
New Hebrides	..	1	2	..	..	1	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	4	3
U.S.T.T.	..	4	3	1	..	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	6
Fiji	..	..	8	3	6	5	5	6	9	5	8	12	1	3	3	..	14	23	2	..	..	..	1	2	..	..	57	59
Total ..	15	27	26	13	14	12	11	13	10	11	14	13	6	6	4	3	16	26	6	7	..	2	1	2	..	..	123	135

3. Of the 14 students who commenced the final year in Medicine, 9 qualified at the end of the year, 1 having graduated in May. The 4 remaining students were referred for further examinations during 1960.

4. There were only 3 students in the final year of Dentistry and all qualified.

5. An analysis of students who failed to complete their courses in 1959 is :—

Preliminary Class in 1959—
7 were discharged as unsatisfactory
2 were invalided home

First Year of Medical Course—
3 were discharged as unsatisfactory
1 resigned voluntarily

Second Year of Medical Course—
1 resigned, having been granted an overseas scholarship.

There were no losses in the 3rd, 4th or 5th years.

First Year in Dentistry Course—
3 were discharged at the end of the year as unsatisfactory,

but there were no losses in the subsequent years.

6. *Post-Graduate*—Three Post-Graduate courses were undertaken each of them being for six months—1 in anaesthetics, 1 as a general refresher course and one in tuberculosis and another in leprosy.

7. *Visitors*—His Excellency the Governor and Lady Maddocks, together with Sir John Gutch, High Commissioner for the Western Pacific, with Lady Gutch, were among the distinguished visitors in 1959.

8. In October, Dr. Wilson Rae, Chief Medical Officer, Colonial Office, visited the School. In addition, there were a number of Scientific visitors, too numerous to mention in this Appendix. These visits of distinguished people are greatly appreciated as all contribute something to the progress of the School.

9. *Staff*—A.M.O. Ram Singh Tulsi returned after a year in the Department of Anatomy, Otago University. It is pleasant to record that during his stay there, he was proposed and elected to the Royal Anatomical Society, London.

10. Dr. David Lancaster joined the staff of the Medical Department and has undertaken the teaching of Obstetrics and Gynaecology. The Principal was on leave during the latter part of 1959 and his duties were carried on by Mr. K. J. Gilchrist, F.R.C.S.

11. The Nuffield Clinic was opened in June, 1959 and the teaching of Social and Preventive Medicine has been centred there since that date. A six-month intensive Post-Graduate Course in Public Health is planned for 1960, leading to a " Certificate of Public Health, Fiji ".

12. Thanks are, as usual, due to the clinicians and others in the Medical Department who give freely of their time in the teaching of clinical subjects and in many other ways. The number of people assisting in this way has increased considerably since the opening of the Nuffield Department of Social and Preventive Medicine, and particular thanks are due to various administrative bodies in Government and to the Suva City Council for their help in this field.

APPENDIX XI

NURSING DIVISION

With the continued recruitment of Sisters through New Zealand and Australia and the appointment of local Sisters trained overseas, the staffing of hospitals showed some improvement. It was not possible, however, to fill all Health Sisters' posts. Two locally trained Nurses were appointed as Charge Nurses, having successfully passed the New Zealand Registered Nurses' Examination.

2. There was a marked improvement in the staffing of hospitals and districts by Colony trained Nurses. It was not possible to re-employ all Nurses who made application for re-appointment.

3. It is becoming apparent that it is no longer necessary to train so many Nurses each year. Consideration must be given to the possibility of staffing the hospitals with trained Nurses, retaining within Government, one hospital as a training centre and one Nursing School.

4. Accommodation for Nurses attached to hospitals has shown some improvement, but much is still required to be done with regard to accommodation for Nurses in the districts.

5. *Nurses' and Midwives' Board*—The Nurses' and Midwives' Board met during October.

6. *Health Sisters' Conference*—The annual Health Sisters' Conference took place during October.

7. *Nursing Establishment*—

	Posts	*Filled*	*Vacant*
Nursing Superintendent	1	1	..
Matrons	4	4	..
Assistant Matrons	1	1	..
Sisters-in-Charge	3	3	..
Health Sisters	13	8	5
Sisters, Ward or Departmental	54	43	11
Principal, Central Nursing School	1	1	..
Tutor Sisters	6	5	1
Staff Nurses	7	7	..
Senior Nurses	62	57*	5
Nurses	309	290	19
Male Nurses	21	14	7

**Includes 7 Male Nurses*

Appointment on local contract	2
Appointment of New Zealand Sisters—2-year contract	15
Appointment of Australian Sisters—2-year contract	10
Appointment of Local Sisters—permanent	..
Appointment of Local Sisters—temporary	5
Appointment of Local Staff Nurses	2
Total number accepted on 2-year contract	27
Total number accepted on temporary appointments	5
Total number accepted on permanent appointments	..
Total number of completing contracts	13
Total number of resignations (including 13 temporary)	20
Total number extending contracts (3 months–1 year)	2

8. *Fiji qualified Nurses*—The total number of Nurses, including 21 male and female tuberculosis trained employed as at 31st December, 1959—

			361
Total number employed in hospitals			252
Fijians and Others	235		
Indians	15		
	—	252	
Employed in Districts			109
Fijians and Others	103		
Indians	6		
	—	109	
Total number of Nurses qualified during the year			58
First appointments			58
Re-appointments			34
Resumed duties following leave of absence			5
On leave of absence for one year			10
Resigned			48
Absconded			3
Duties terminated			5
Admitted to Tamavua Chest Hospital			3
Promoted to senior grade			8

NURSING SCHOOLS

9. *Central Nursing School, Tamavua—Trained Establishment—*

	Posts	*Filled*	*Vacant*
Principal	1	1	..
Tutors	4	3	1
Nurses	2	2	..

10. Number of students in training as at 31st December 178

Colony Curriculum	156
New Zealand Curriculum	22
	178

11. *Colony Curriculum—*

Number graduated in May	33
Number entered the School in February	63
Numbered left the School	22
Number transferred from New Zealand curriculum	2
Number transferred to tuberculosis training	10

12. School Roll includes—

Fijians	143	
Part-Europeans	1	
Rotumans	7	
Part-Chinese	1	
Papua and New Guinea	2	
Banabans	2	
	156	
Number leaving the School	22	
		178

13. *New Zealand Course—*

Number in training as at 31st December	22
Entered the School in 1959	11
Graduated in December	2
Left during the year	8
Transferred to Colony training	2
Sat New Zealand First Professional Examination in May	11
Successful in New Zealand First Professional Examination	11

14. The New Zealand course roll includes :—

Fijians	13
Indians	4
Part-Europeans	3
Rotumans	2
	22

15. *Graduation*—The Nurses' Graduation Ceremony took place on 5th May.

16. Addresses were given by Lady Maddocks and the Director of Medical Services. Lady Maddocks also presented the special prizes. The Nursing Superintendent pinned the Medals on the graduates and presented the Certificates.

17. On the 23rd April, following an address by the Deputy Director of Medical Services and Nursing Superintendent, Hospital Certificates were presented to the seven New Zealand Registered Nurses and Medals were presented to the two New Zealand Registered Nurses who were successful in the December, 1958 examination, by the Nursing Superintendent.

18. *Social Activities*—Social activities were extended during the year to include a drama club, picture and slide evenings. As usual the Student Nurses sang carols on Christmas Eve at the Colonial War Memorial Hospital and also at the Home of Compassion. This was much appreciated by the patients and staff.

19. *Sports*—Keen interest has been taken in sport during the year. Basketball was played in the Suva senior competition and inter-class play continued each week.

20. Increased interest was taken in athletics.

LAUTOKA NURSING SCHOOL

21. *Trained Establishment—*

	Posts	*Filled*	*Vacant*
Tutors	2	2	..
Nurse	1	1	..

22. Number of students in training as at 31st December 81

Number of Nurses graduated in May	25
Number of Nurses entered the School, February, 1959	35
Number of Nurses leaving the School	9

23. *School Roll Includes*—

Fijians	65
Indians	15
Part-Europeans	1
	81

24. *Graduation*—Graduation and prize giving was held on 8th May. The medals were presented by the Nursing Superintendent and the Certificates and special prizes were presented by Mrs. M. McAlpine, wife of the Commissioner, Western.

25. Grand total (not including New Zealand curriculum) :—

Total number of Nurses in training as at 31st December		237
Fijians	208	
Indians	15	
Part-Europeans	2	
Rotumans	7	
Papuans	2	
Part-Chinese	1	
Banabans	2	
	237	
Total number accepted at the Schools		98
Total number graduated in May, 1958		58
Total number leaving the Schools		31
Total number admitted to Tamavua Hospital		3
Transferred from New Zealand Class		2

HEALTH STAFF

26. *Establishment—Nursing*—

Health Sisters	13
Nurses	138

27. The year's programme of work was similar to that performed by the Health Sisters and Nurses in 1958.

28. *Health Sisters' Headquarters and Areas*—

Name	*Headquarters*	*Areas*
Miss L. Ramsamuj	Suva Health Office ..	Suva City, Suva Rural to Kalokolevu via Queen's Road, Colo-i-Suva via Princes Road to Laqari, Kalobo and Naliva village to King's Road, Wailoku Hospital.
Miss J. Sinclair	Suva Health Office ..	Suva City, Suva Rural Schools to Davuilevu via King's Road to Sawani via Princes Road.
Miss V. McKenzie .. .. (Health Sister)	Nausori	Rewa, Tailevu, Naitasiri, Kadavu.
Vacant (Health Sister) ..	Lautoka Health Office	Lautoka, Yasawas, Nadi.
Mrs. J. Cleary .. .. (Mobile Clinic)	Lautoka	Lautoka to beyond Korolevu on Queens Road and beyond Raki Raki via Kings Road.
Mrs. O. M. Caine .. .. (Health Sister)	Ba	Ba Province.
Vacant (Health Sister) ..	Nanukuloa	Ra Province
Vacant (Health Sister) ..	Vatukoula	Vatukoula Obstetric Annexe, Tavua, Nadarivatu, Vatukoula.
Miss L. Hunter-Smith ..	Labasa	Macuata, Bua
Mrs. J. B. Miles .. .. (Health Sister)	Savusavu	Cakaudrove
Miss J. G. Wallace .. (Health Sster)		Nadroga, Navosa, Namosi.

SUVA HEALTH OFFICE

29. Health Sisters, two (one Child Welfare, one School Health Sister).

A—Child Welfare Department

Clinic Attendances (including Mobile Clinic)—

Europeans	2,856
Part-Europeans	1,531
Fijians	13,371
Indians	9,721
Chinese	702
Others	1,031
Total ..	29,212

Children under 2 years seen at Health Office	8,757
Children between 2 years and 5 years seen at Health Office	4,712
Children under 2 years seen on Mobile Clinic	6,939
Children between 2 years and 5 years seen on Mobile Clinic	5,038
Stools sent to Laboratory	72
Children treated for worms	233
Smallpox vaccinations	1,524
Vaccination inspections	379
Anti-tetanus inoculations given	4
Triple antigen inoculations given	1,796
T.A.B. inoculations given	231
Cholera inoculations given	159
Yellow fever inoculations given	4
Inoculations against poliomyelitis given	2,762
Umbilical cords dressed or treated	163
Approximate number of families first visits to Health Office	3,045
Number of homes visited	762
Number of children seen in homes	1,555
Number of cases referred to Hospital or Private Doctor	444

B—Schools Health Division

30. Number of children inspected and inoculated and treated at schools and in Health Clinic during 1959 :—

Number of children medically inspected at schools	12,887
Number of children given T.A.B. inoculations at schools	14,046
Number of children treated for minor ailments at schools	357
Number of children treated for minor ailments at Health Clinic	6,183
Number of children given T.A.B. inoculations at Health Clinic	197
Number of children given A.T.S. injections at Health Clinic	52
Number of children given penicillin injections at Health Clinic	53
Number of children treated for positive worms at Health Clinic	88
Number of specimen stools sent to Laboratory	24
Number of children given Triple Antigen at Health Clinic	106
Number of children given anti-poliomyelitis inoculations	1,321
Number of children treated for loss of weight at Health Clinic	33
Number of children found with chickenpox at Health Clinic	6
Number of children found with chickenpox at schools	1
Number of children found with mumps at Health Clinic	24
Number of children found with whooping cough at Health Clinic	11
Number of children sent to Out-patients Department, Colonial War Memorial Hospital	297
Number of children sent to Dental Clinic	95
Number of children sent to Eye Clinic	91
Number of children sent to X-Ray Department, Colonial War Memorial Hospital	4
Approximate number of children with families first visits	2,922

C—Dispensaries

Number of patients seen at Wailoku Hospital, Waiqanake and villages	7,064

ACTIVITIES OF HEALTH SISTERS AND RURAL HEALTH NURSES BASED ON CENTRES OUTSIDE SUVA

	Lautoka	Ba	Labasa	Nadroga	Rewa	Total
Attendances at Health Clinic	5,006	962	9,824	1,009	....	16,801
Schools visited	16	39	54	58	15	182
Children examined in schools	3,153	5,983	5,104	6,631	1,873	22,744
Children seen in villages	1,193	455	4,437	6,460	7,086	19,631
Ante-natal examinations	2,364	531	....	1,031	175	4,101
Smallpox vaccinations	300	*70	....	18	....	388
Triple Antigen	218	....	2,386	982	2,769	6,355
T.A.B. inoculations	4,139	6,195	5,583	6,247	4,655	26,819
Family Planning Clinic	..	216	197	42	....	455
	16,389	*14,451	27,585	22,478	16,573	97,476

* Ba includes Tavua and Ra

APPENDIX XII

NOTIFICATION OF INFECTIOUS DISEASES BY RACE FOR THE YEAR 1959

Disease	Europeans	Part-Europ.	Fijians	Indians	Others	Totals
1. Ankylostomiasis	....	4	28	46	2	80
2. Anthrax	....	....	....	....	....	....
3. Beriberi	....	....	....	1	....	1
4. Cerebro-Spinal Meningitis	5	2	28	18	4	57
5. Chicken Pox (Varicella)	3	10	252	68	48	381
6. Dengue Fever	....	....	13	15	....	28
7. Diphtheria	....	....	2	5	....	7
8. Dysentery—						
(*a*) Amoebic	2	2	4	10	....	18
(*b*) Bacillary	....	1	15	18	....	34
(*c*) Unclassified	....	....	15	46	....	61
9. Encephalitis Lethargica	....	1	2	1	....	4
10. Erysipelas	1	....	2	2	....	5
11. Infantile Diarrhoea	1	17	1,221	774	79	2,092
12. Infective Hepatitis	38	17	91	228	22	396
13. Influenza	111	134	10,596	7,572	1,628	20,041
14. Leprosy	1	1	18	21	1	42
15. Leptospirosis	....	....	....	....	....	....
16. Malaria	....	....	....	....	....	....
17. Measles (German)	1	2	4	36	4	47
18. Measles (Morbilli)	5	2	3	3	....	13
19. Mumps	9	24	651	1,262	108	2,054
20. Poliomyelitis	....	....	3	3	....	6
21. Puerperal Fever	....	1	29	39	....	69
22. Scarlet Fever	1	....	....	....	....	1
23. Tetanus	....	2	23	21	1	47
24. Trachoma	1	24	211	19	34	289
25. Tuberculosis—Pulmonary	10	7	411	119	47	594
26. Tuberculosis—Other forms	....	1	34	10	5	50
27. Typhoid Fever—						
(*a*) Enteric	2	2	16	4	2	26
(*b*) Paratyphoid Fever	....	....	2	1	....	3
28. Undulant Fever	....	....	....	....	....	....
29. Venereal Diseases—						
(*a*) Climatic Bubo	....	....	....	....	....	....
(*b*) Gonorrhoea	4	17	156	87	17	281
(*c*) Gon. Ophthalmia including Neonatorum	....	....	2	2	....	4
(*d*) Soft Chancre	....	....	....	....	....	....
(*e*) Syphilis	....	....	1	7	....	8
(*f*) Venereal Granuloma	....	....	....	....	....	....
(*g*) Others	....	....	....	....	....	....
30. Whooping Cough (Pertussis)	9	13	444	661	27	1,154
31. Yaws	....	1	56	8	17	82
Total	204	285	14,333	11,107	2,046	27,957

APPENDIX XIII

VITAL STATISTICS

(1) ESTIMATED POPULATION AT 31ST DECEMBER, 1959

Race	Male	Female	Total	(1958)	Difference	Per cent increase	Population per sq. mile
Fijians	82,527	79,956	162,483	157,808	4,675	3	23·08
Indians	99,055	92,273	191,328	184,090	7,238	3·9	27·18
Europeans	5,425	4,359	9,784	8,987	797	8·9	1·39
Part-Europeans	4,319	4,145	8,464	8,273	191	2·3	1·22
Other Islanders	3,065	2,776	5,841	5,797	44	·8	density of
Rotumans	2,453	2,409	4,862	4,708	154	3·3	less than 1
Chinese	2,926	1,883	4,809	4,545	264	5·8	person per
Others	12	63	75	76	— 1	....	sq. mile.
Totals	199,782	187,864	387,646	374,284	13,362	3·6	55

(2) BIRTHS RECORDED DURING YEARS 1956–1959

Race	1956	1957	1958	1959	1958 Population	Crude Birth-rate 1959 per mille of 1958 population
Fijians	5,378	5,933	5,587	5,909	157,808	37
Indians	7,679	7,928	8,196	8,890	184,090	48
Europeans	155	181	193	293	8,987	33
Part-Europeans ..	272	240	278	229	8,273	28
Other Islanders ..	190	225	217	234	5,797	40
Rotumans	213	171	159	182	4,708	39
Chinese	134	164	171	178	4,545	39
Others	35	3	4	4	76	..
Totals ..	14,056	14,845	14,805	15,919	374,284	43

(3) DEATHS RECORDED DURING YEARS 1956-1959

Race	1956	1957	1958	1959	1958 Population	Crude death-rate per mille of 1958 population
Fijians	1,136	1,309	1,193	1,235	157,808	8
Indians	1,241	1,114	1,204	1,474	184,090	8
Europeans	43	45	44	41	8,987	5
Part-Europeans	38	39	43	38	8,273	5
Other Islanders	48	69	45	40	5,797	7
Rotumans	65	46	37	28	4,708	6
Chinese	21	27	18	26	4,545	6
Others	3	2	....	1	76	....
Totals ..	2,595	2,651	2,584	2,883	374,284	8

(4) MARRIAGES, BIRTHS, DEATHS AND NATURAL INCREASE—1959

Race	Marriages	Births	Deaths	Net Increase	1958 Population	Increase per mille
Fijians	1,135	5,909	1,235	4,674	157,808	30
Indians	1,605	8,890	1,474	7,416	184,090	40
Europeans ..	73	293	41	252	8,987	28
Part-Europeans ..	45	229	38	191	8,273	23
Other Islanders ..	41	234	40	194	5,797	33
Rotumans . ..	30	182	28	154	4,708	33
Chinese	26	178	26	152	4,545	33
Others	....	4	1	3	76	....
Totals ..	2,955	15,919	2,883	13,036	374,284	35

(5) INFANT AND CHILD MORTALITY

	Births	Deaths Under 5 Years						Infant Mortality Rate per mille
		Under 1	1–2	2–3	3–4	4–5	Total	
1956—Fijians	5,378	259	85	31	11	15	401	48
Indians	7,679	342	29	21	8	7	407	45
1957—Fijians	5,933	251	134	40	23	28	476	42
Indians	7,928	282	35	13	16	7	353	36
1958—Fijians	5,587	211	82	34	19	17	363	38
Indians	8,196	345	19	14	6	9	393	42
1959—Fijians	5,909	226	81	29	16	16	368	38
Indians	8,890	415	39	18	14	11	497	47

APPENDIX XIV

Return of Diseases and Deaths for the year 1959, at the Colonial War Memorial Hospital, Tamavua, Lautoka, Labasa and Levuka Hospitals.

NOTE.—This classification is based on the International Classification of Diseases, WHO 1955.

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
		I—INFECTIVE AND PARASITIC DISEASES						
A 1	001–008	Tuberculosis of respiratory system	8	511	115	56	690	33
A 2	010	Tuberculosis of meninges and central nervous system	1	11	5	1	18	7
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	..	7	..	..	7	1
A 4	012, 013	Tuberculosis of bones and joints	..	36	4	3	43	1
A 5	014–019	Tuberculosis, all other forms	..	32	5	..	37	1
A 6	020	Congenital syphilis	..	..	..	..	..	..
A 7	021	Early syphilis	..	..	..	..	..	..
A 8	024	Tabes dorsalis	..	..	..	..	..	..
A 9	025	General paralysis of insane	..	..	..	..	..	..
A 10	022, 023 026–029	All other syphilis	..	..	..	..	..	..
A 11	030–035	Gonococcal infections	1	8	1	..	10	1
A 12	040	Typhoid fever	3	2	2	2	9	..
A 13	041, 042	Paratyphoid fever and other Salmonella infections	..	3	1	..	4	..
A 14	043	Cholera	..	..	..	..	..	..
A 15	044	Brucellosis (undulant fever)	..	..	..	..	..	..
A 16 (a)	045	Bacillary dysentery	2	8	7	..	17	..
(b)	046	Amoebiasis	5	9	18	..	32	2
(c)	047, 048	Other unspecified forms of dysentery	2	2	1	..	5	..
A 17	050	Scarlet fever	..	..	..	..	..	..
A 18	051	Streptococcal sore throat	..	..	1	..	1	..
A 19	052	Erysipelas	1	..	..	..	1	..
A 20	053	Septicaemia and pyaemia	..	..	1	..	1	..
A 21	055	Diphtheria	1	2	5	..	8	3
A 22	056	Whooping cough	..	4	8	2	14	..
A 23	057	Meningococcal infections	..	2	2	..	4	1
A 24	058	Plague	..	..	..	..	..	..
A 25	060	Leprosy	..	7	3	1	11	..
A 26	061	Tetanus	..	19	15	..	34	18
A 27	062	Anthrax	..	..	..	..	..	..
A 28	080	Acute poliomyelitis	..	1	5	..	6	2
A 29	082	Acute infectious encephalitis	1	2	8	..	11	3
A 30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis	..	..	6	..	6	..
A 31	084	Smallpox	..	..	..	..	..	..
A 32	085	Measles	..	..	1	..	1	..
A 33	091	Yellow fever	..	..	..	..	..	..
A 34	092	Infectious hepatitis	22	25	29	6	82	7
A 35	094	Rabies	..	..	..	..	..	..
A 36 (a)	100	Louse-borne epidemic typhus	..	..	..	..	..	..
(b)	101	Flea-borne endemic typhus (murine)	..	..	..	..	..	..
(c)	104	Tick-borne epidemic typhus	..	..	..	..	..	..
(d)	105	Mite-borne typhus	..	..	..	..	..	..
(e)	102, 103 106–108	Other and unspecified typhus	..	..	1	..	1	..
A 37 (a)	110	Vivax malaria (benign, tertian)	..	..	..	..	..	..
(b)	111	Malariae malaria (quartan)	..	1	..	..	1	..
(c)	112	Falciparum malaria (malignant tertian)	..	..	..	..	..	..
(d)	115	Blackwater fever	..	..	..	..	..	..
(e)	113, 114 116, 117	Other and unspecified forms of malaria	..	..	..	..	..	..
A 38 (a)	123·0	Schistosomiasis vesical (*S. haematobium*)	..	..	..	..	..	..
(b)	123·1	Schistosomiasis intestinal (*S. Mansoni*)	..	..	..	..	..	..
(c)	123·2	Schistosomiasis pulmonary (*S. japonicum*)	..	..	..	..	..	..
(d)	123·3	Other and unspecified schistosomiasis	..	..	..	..	..	..
A 39	125	Hydatid disease	..	..	..	..	..	..
A 40 (a)	127	Onchocerciasis	..	..	..	..	..	..
(b)		Loiasis	..	..	..	..	..	..
(c)		Filariasis (*bancrofti*)	1	26	2	1	30	1
(d)		Other filariasis	..	..	..	..	..	..
A 41	129	Ankylostomiasis	..	5	11	..	16	..
A 42 (a)	126	Tapeworm (infestation) and other cestode infestations	..	..	6	1	7	..
(b)	130·0	Ascariasis	..	1	4	..	5	..
(c)	130·3	Guinea worm (*dracunculosis*)	..	..	..	..	..	..
(d)	124, 128 130·1, 130·2	Other diseases due to helminths	..	2	..	..	2	..
A 43 (a)	037	Lymphogranuloma venereum	..	1	1	..	2	1
(b)	038	Granuloma inguinale, venereal	2	2	5	..	9	..
(c)	039	Other and unspecified venereal diseases	..	..	..	..	..	..
(d)	049	Food poisoning infection and intoxication	3	1	..	..	4	..
(e)	071	Relapsing fever	..	..	..	..	..	..

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
(*f*)	072	Leptospirosis icterohaemorrhagica (Weil's disease)	..	..	..	..	..	..
(*g*)	073	Yaws	..	3	..	..	3	..
(*h*)	087	Chickenpox	..	..	..	..	..	..
(*i*)	090	Dengue	..	..	..	..	..	..
(*j*)	095	Trachoma	..	23	1	..	24	..
(*k*)	096-7	Sandfly fever	..	..	..	..	..	..
(*l*)	120	Leishmaniasis	..	..	..	..	..	..
(*m*)	121 (*a*)	Trypanosomiasis gambiensis	..	..	..	..	..	..
	(*b*)	Trypanosomiasis rhodesiensis	..	..	..	..	..	..
	(*c*)	Other and unspecified Trypanosomiasis	..	..	..	..	..	..
(*n*)	131	Dermatophytosis	..	4	1	1	6	..
(*o*)	135	Scabies	1	3	1	..	5	..
(*p*)	036, 054, 059, 063, 064, 070, 074, 086, 088, 089, 093, 096-1–096-6, 096-8, 096-9, 122, 132–134, 136–138	All other diseases classified as infective and parasitic	12	14	17	1	44	1
		II—NEOPLASMS						
A 44	140–148	Malignant neoplasm of buccal cavity and pharynx	1	2	6	..	9	3
A 45	150	Malignant neoplasms of oesophagus	..	..	1	..	1	..
A 46	151	Malignant neoplasm of stomach	..	7	4	1	12	1
A 47	152, 153	Malignant neoplasm of intestine, except rectum	2	3	3	..	8	..
A 48	154	Malignant neoplasm of rectum	..	2	6	..	8	2
A 49	161	Malignant neoplasm of larynx	..	..	3	..	3	1
A 50	162, 163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	..	1	2	1	4	1
A 51	170	Malignant neoplasm of breast	2	10	1	..	13	2
A 52	171	Malignant neoplasm of cervix uteri	2	16	13	..	31	1
A 53	172–174	Malignant neoplasm of other and unspecified parts of uterus	3	5	8	..	16	..
A 54	177	Malignant neoplasm of prostate	1	3	5	..	9	1
A 55	190, 191	Malignant neoplasm of skin	7	2	2	..	11	..
A 56	196, 197	Malignant neoplasm of bone and connective tissue	..	10	6	..	16	3
A 57	155, 160, 164, 165, 175, 176, 178–181, 192–195, 198, 199	Other and unspecified sites	1	13	19	3	36	11
A 58	204	Leukaemia and aleukaemia	5	1	4	..	10	5
A 59	200–203, 205	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	..	2	2	..	4	..
A 60	210–239	Benign neoplasms and neoplasms of unspecified nature	28	38	56	6	128	..
		III—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES						
		and						
		IV—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS						
A 61	250, 251	Nontoxic goitre	..	4	11	..	15	..
A 62	252	Thyrotoxicosis with or without goitre	3	1	8	..	12	..
A 63	260	Diabetes mellitus	5	31	166	4	206	17
A 64 (*a*)	280	Beriberi	..	..	1	..	1	..
(*b*)	281	Pellagra	1	1	3	..	5	2
(*c*)	282	Scurvy	..	..	1	..	1	1
(*d*)	283–286	Other deficiency states	3	19	7	2	31	5
A 65 (*a*)	290	Pernicious and other hyperchromic anaemias	..	2	48	..	50	5
(*b*)	291	Iron deficiency anaemias (hypochromic)	..	13	91	1	105	3
(*c*)	292, 293	Other specified and unspecified anaemias	..	3	23	1	27	4
A 66 (*a*)	241	Asthma	12	22	90	2	126	5
(*b*)	240, 242–245, 253, 254, 270–277, 287–289, 294–299	All other allergic disorders endocrine, metabolic and blood diseases	6	11	27	..	44	2
		V—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS						
A 67	300–309	Psychoses	2	3	9	..	14	..
A 68	310–324, 326	Psychoneuroses and disorders of personality	9	6	9	..	24	..
A 69	325	Mental deficiency	..	1	5	..	6	..

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
		VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS						
A 70	330–334	Vascular lesions affecting central nervous system	6	13	37	2	58	20
A 71	340	Nonmeningococcal meningitis	7	30	30	1	68	14
A 72	345	Multiple sclerosis	..	1	..	..	1	..
A 73	353	Epilepsy	2	11	24	2	39	3
A 74	370–379	Inflammatory diseases of eye	3	35	46	..	84	..
A 75	385	Cataract	7	24	94	5	130	..
A 76	387	Glaucoma	1	1	7	1	10	..
A 77 (*a*)	390	Otitis externa	1	4	8	..	13	..
(*b*)	391–393	Otitis media and mastoiditis	1	11	18	3	33	..
(*c*)	394	Other inflammatory diseases of ear	..	2	1	..	3	..
A 78 (*a*)	380–384, 386, 388, 389	All other diseases and conditions of eye	3	20	39	1	63	2
(*b*)	341, 344 350–352, 360–369 395–398	All other diseases of the nervous system and sense organs	5	18	27	2	52	3
		VII—DISEASES OF THE CIRCULATORY SYSTEM						
A 79	400–402	Rheumatic fever	6	8	84	2	100	1
A 80	410–416	Chronic rheumatic heart disease	3	19	96	2	120	10
A 81	420–422	Arteriosclerotic and degenerative heart disease	10	5	54	1	70	14
A 82	430–434	Other diseases of heart	8	17	72	..	97	28
A 83	440–443	Hypertension with heart disease	7	7	72	6	92	14
A 84	444–447	Hypertension without mention of heart	8	15	54	3	80	14
A 85	450–456	Disease of arteries	4	4	16	..	24	6
A 86	460–468	Other diseases of circulatory system	21	17	66	5	109	10
		VIII—DISEASES OF THE RESPIRATORY SYSTEM						
A 87	470–475	Acute upper respiratory infections	7	12	32	2	53	..
A 88	480–483	Influenza	12	46	79	6	143	2
A 89	490	Lobar pneumonia	14	141	108	7	270	18
A 90	491	Bronchopneumonia	19	164	192	7	382	62
A 91	492, 493	Primary atypical, other and unspecified pneumonia	8	7	17	..	32	2
A 92	500	Acute bronchitis	6	20	36	..	62	..
A 93	501, 502	Bronchitis, chronic and unqualified	6	15	22	1	44	4
A 94	510	Hypertrophy of tonsils and adenoids	30	5	77	3	115	..
A 95	518, 521	Empyema and abscess of lung	..	8	5	1	14	2
A 96	519	Pleurisy	4	9	13	1	27	1
A 97 (*a*)	523	Pneumoconiosis	..	..	..	..	..	..
(*b*)	511–517, 520–522, 524–527	All other respiratory diseases	9	41	66	3	119	9
		IX—DISEASES OF THE DIGESTIVE SYSTEM						
A 98 (*a*)	530	Dental Caries	3	1	2	..	6	..
(*b*)	531–535	All other diseases of teeth and supporting structures	3	11	18	1	33	..
A 99	540	Ulcer of stomach	8	28	45	1	82	5
A 100	541	Ulcer of duodenum	14	19	46	8	87	1
A 101	543	Gastritis and duodenitis	9	19	64	1	93	..
A 102	550–553	Appendicitis	39	45	184	16	284	..
A 103	560, 561, 570	Intestinal obstruction and hernia	29	65	94	9	197	8
A 104 (*a*)	571·0	Gastro-enteritis and colitis between 4 weeks and 2 years	6	38	73	1	118	18
(*b*)	571·1	Gastro-enteritis and colitis, ages 2 years and over	7	32	47	3	89	3
(*c*)	572	Chronic enteritis and ulcerative colitis	6	..	..	..	6	..
A 105	581	Cirrhosis of liver	1	16	18	1	36	6
A 106	584, 585	Cholelithiasis and cholecystitis	10	4	41	1	56	3
A 107	536–539 542, 544, 545, 573–580, 582, 583, 586, 587	Other diseases of digestive system	33	49	121	3	206	13

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
		X—DISEASES OF THE GENITO-URINARY SYSTEM						
A 108	590	Acute nephritis	3	8	102	2	115	3
A 109	591–594	Chronic, other and unspecified nephritis	7	19	52	2	80	11
A 110	600	Infections of kidney	3	8	55	..	66	4
A 111	602, 604	Calculi of urinary system	7	3	53	2	65	..
A 112	610	Hyperplasia of prostate	8	7	25	2	42	3
A 113	620, 621	Diseases of breast	4	7	12	..	23	..
A 114 (*a*)	613	Hydrocele	4	45	33	1	83	..
(*b*)	634	Disorders of menstruation	27	22	92	4	145	..
(*c*)	601, 603, 605–609, 611, 612, 614–617, 622–633, 635–637	All other diseases of the genito-urinary system	68	110	263	14	455	5
		XI—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM						
A 115	640–641, 681, 682, 684	Sepsis of pregnancy, childbirth and the puerperium	..	39	67	4	110	1
A 116	642, 652, 685, 686	Toxaemias of pregnancy and the puerperium	..	20	113	1	134	3
A 117	643, 644, 670–672	Haemorrhage of pregnancy and childbirth	2	95	91	14	202	1
A 118	650	Abortion without mention of sepsis or toxaemia	50	97	269	8	424	4
A 119	651	Abortion with sepsis	6	13	11	2	32	1
A 120 (*a*)	645–649, 673–680, 683, 687–689	Other complications of pregnancy, childbirth and the puerperium	21	143	362	7	533	6
(*b*)	660	Delivery without complications	99	866	1,920	148	3,033	1
		XII—DISEASES OF THE SKIN AND CELLULAR TISSUE and **XIII—DISEASES OF THE BONES AND ORGANS OF MOVEMENT**						
A 121	690–698	Infections of skin and subcutaneous tissue	32	205	242	14	493	4
A 122	720–725	Arthritis and spondylitis	9	24	40	5	78	1
A 123	726, 727	Muscular rheumatism and rheumatism unspecified	5	4	8	..	17	..
A 124	730	Osteomyelitis and periostitis	5	28	23	1	57	1
A 125	737, 745–749	Ankylosis and acquired musculo-skeletal deformities	..	3	4	..	7	..
A 126 (*a*)	715	Chronic Ulcer of Skin (including tropical ulcer)	2	9	10	2	23	1
(*b*)	700–714, 716	All other diseases of skin	13	12	10	1	36	1
(*c*)	731–736, 738–744	All other diseases of musculo-skeletal system	13	51	56	2	122	1
		XIV—CONGENITAL MALFORMATIONS						
A 127	751	Spina bifida and meningocele	..	1	5	..	6	1
A 128	754	Congenital malformations of circulatory system	1	1	3	..	5	2
A 129	750, 752, 753, 755–759	All other congenital malformations	2	16	39	..	57	6
		XV—CERTAIN DISEASES OF EARLY INFANCY						
A 130	760, 761	Birth injuries	..	1	1	..	2	..
A 131	762	Postnatal asphyxia and atelectasis	..	3	4	..	7	5
A 132 (*a*)	764	Diarrhoea of newborn (under 4 weeks)	..	2	13	..	15	6
(*b*)	765	Ophthalmia neonatorum	..	..	2	..	2	..
(*c*)	763, 766–768	Other infections of newborn	..	2	..	..	2	1
A 133	770	Haemolytic disease of newborn	..	..	..	..	..	..
A 134	769, 771, 772	All other defined diseases of early infancy	..	4	5	1	10	2
A 135	773, 776	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	2	9	39	..	50	18

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Total	Deaths
		XVI—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS						
A 136	794	Senility without mention of psychosis	4	..	2	1	7	..
A 137 (*a*)	788·8	Pyrexia of unknown origin	5	14	24	1	44	..
(*b*)	793	Observation, without need for further medical care	143	440	1,183	15	1,781	14
(*c*)	780–787 788·1–788·7 788·9, 789–792, 795	All other ill-defined causes of morbidity	22	14	44	3	83	2

"E" CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSE)

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AE 138	E810–E835	Motor vehicle accidents	9	37	43	3	92	10
AE 139	E800–E802 E840–E866	Other transport accidents	2	8	17	1	28	..
AE 140	E870–E895	Accidental poisoning	9	17	50	3	79	6
AE 141	E900–E904	Accidental falls	40	116	198	6	360	6
AE 142	E912	Accident caused by machinery	2	10	32	3	47	..
AE 143	E916	Accident caused by fire and explosion of combustible material	2	12	22	4	40	5
AE 144	E917, E918	Accident caused by hot substance, corrosive liquid, steam and radiation	5	16	23	..	44	2
AE 145	E919	Accident caused by firearm	..	..	9	..	9	..
AE 146	E929	Accidental drowning and submersion	..	2	1	..	3	..
AE 147 (*a*)	E920	Foreign body entering eye and adnexa	8	17	38	1	64	..
(*b*)	E923	Foreign body entering other orifice	..	2	6	1	9	..
(*c*)	E927	Accidents caused by bites and stings of venomous animals and insects	4	14	18	..	36	..
(*d*)	E928	Other accidents caused by animals	1	2	14	..	17	3
(*e*)	E910, E911 E913–E915 E921–E922 E924–E926 E930–E965	All other accidental causes	8	64	41	4	117	..
AE 148	E970–E979	Suicide and self-inflicted injury	..	3	9	1	13	1
AE 149	E980–E985	Homicide and injury purposely inflicted by other persons (not in war)	10	46	70	3	129	4
AE 150	E990–E999	Injury resulting from operations of war	..	1	..	..	1	..

"N" CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (NATURE OF INJURY)

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AN 138	N800–N804	Fracture of skull	8	37	41	1	87	3
AN 139	N805–N809	Fracture of spine and trunk	6	11	14	2	33	3
AN 140	N810–N829	Fracture of limbs	34	113	197	7	351	9
AN 141	N830–N839	Dislocation without fracture	5	10	9	1	25	..
AN 142	N840–N848	Sprains and strains of joints and adjacent muscle	1	14	7	1	23	..
AN 143	N850–N856	Head injury (excluding fracture)	10	30	39	2	81	2
AN 144	N860–N869	Internal injury of chest, abdomen and pelvis	1	6	8	1	16	3
AN 145	N870–N908	Laceration and open wounds	12	65	103	5	185	..
AN 146	N910–N929	Superficial injury, contusion and crushing with intact skin surface	7	14	29	2	52	..
AN 147	N930–N936	Effects of foreign body entering through orifice	1	8	24	1	34	2
AN 148	N940–N949	Burns	7	31	49	4	91	5
AN 149	N960–N979	Effects of poisons	7	13	53	2	75	7
AN 150	N950–N959 N980–N999	All other and unspecified effects of external causes	1	15	18	1	35	3

APPENDIX XV

URBAN/TOWNSHIP/RURAL SANITARY DISTRICTS OF FIJI
REPORT OF HEALTH INSPECTORS FOR THE YEAR 1959

1—Summary of Inspections

Type of Premises, etc.	Inspections	Re-Inspections	Total
House-to-house Inspection of District	45,195	21,102	66,297
Investigation of Complaints, Nuisances etc.	1,180	522	1,702
New Building sites—before approval	1,297	108	1,405
New Building Works in Progress	4,933	1,192	6,125
Investigation of Infectious Disease and disinfection	2,342	35	2,377
Shipping	233	6	239
Aircraft	633	6	639
Houses-let-as-Lodgings and Lodging Houses	1,222	537	1,759
Factories and Workshops	712	404	1,116
Cemeteries	78	27	105
Schools	531	224	755
Checking Sanitary Services (A/cs. etc.)	755	166	921
Laundries	568	261	829
Hairdressers, Chiropodists, etc.	1,185	715	1,900
Foodshops, Foodstores, Markets, etc.	5,371	2,366	7,737
Eating Houses and Ice Cream Premises	2,506	1,228	3,734
Aerated Water and Ice Factories	229	103	332
Kava Saloons	430	281	711
Bakehouses	785	487	1,273
Slaughterhouses	103	65	168
Butcher Shops	385	249	634
Food Vehicles	557	423	980
Quarantine Islands	57	17	74
Septic Tanks	1,120	70	1,190
Sanitary Inspectors—Local Vessels	80	25	105
Public Lavatories	6	....	6
Cinema	58	4	62
Miscellaneous	14,237	39	14,276
	86,788	30,662	117,450

2—Written Notices, Etc., Issued

Intimation Notices served	7,580
Statutory Notices served	847
Buildings Surveyed for Closure or Demolition	88
Closing Orders Served	128
Demolition Orders Served	15
Notice of Intention to Demolish	8
Buildings Demolished after service of Orders—	
By Owners	8
By Local Authority	2

3—Building Applications Dealt With

	Number	Value
Applications in respect of New Buildings	2,906	1,592,140
Applications in respect of Alterations and Repairs	310	141,667
Applications in respect of Septic Tanks	101	8,605
Total	3,317	1,742,412

Buildings completed and passed during the year	1,267
Applications outstanding in Register (work not completed) at end of year—	
New Buildings	2,541
Alterations and Repairs	388
Septic Tanks	91
Applications lapsed	127
Applicants Rejected	19
Applications withdrawn	29

4—Summary of Sanitary Improvements, Etc. (all types of Premises)

Items	Ordered	Completed
Repairing of Buildings	904	229
Improvements to Lighting and Ventilation of Buildings	277	122
Removal of Unauthorized Erections	295	126
Abatement of Overcrowding	146	49
New Privies (all types)	1,927	1,208
Repairing, Cleansing or Flyproofing of Privies	4,520	2,779
Filling in of Insanitary Privies	1,637	1,035
New Bathrooms or Washing Places	234	133
Repairing or Cleansing of Bathrooms or Washing Places	670	521
New Kitchens	203	83
Repairing or Cleansing of Kitchens	644	480
Provision of New Drains	883	499
Repairing or Cleansing of existing Drains	3,649	2,306
New Wells	151	87
Repairing or Improvement of Wells	853	470
New Water Tanks	101	55
Repairing, Screening or Cleansing of Water Tanks	1,819	1,026
Removal of Accumulations of Refuse, etc.	7,370	5,093
Clearing of Overgrowth or Long Grass	6,640	4,137
Provision of Garbage Tins	2,565	1,416
Abatement of Nuisances from Animals or Poultry	2,480	1,353
Abatement of Mosquito Breeding	3,890	3,109
Cleansing of Food Premises	1,864	1,518
Structural Improvements to Food Premises	379	230
Cleansing of Food Vehicles	438	375
Improvements to Food Vehicles	133	117
Cleansing or Improvement of Hairdressers Premises	419	280
Cleansing or Improvement of Laundries	189	138
Cleansing or Improvement of Schools	114	66
Cleansing or Improvement of Shipping	2	1
Impounding of Straying Cattle	50	50
Miscellaneous	775	550
Total	46,221	29,641

5—Mosquito Control

Premises Inspected for Mosquito Larvae	78,040
Premises at which larvae found	4,201
Larval Index	5·38 per cent

6—Disinfection, Disinfestation and Fumigation

Type of Premises or Vessel	Method	Number
Overseas Vessels—Anti-malarial Inspections		58
Overseas Vessels	Aerosol Bombs	26
Overseas Vessels	Cyanide	6
Local Vessels	Formalin, Dieldrin, etc.	1
Local Vessels	Cyanide	62
Aircraft	Aerosol Bomb	663
Aircraft	Formalin, Dieldrin, etc.	1
Premises, Dwellings, etc.	Formalin, etc.	2
Premises, Dwellings, etc.	D.D.T., Dieldrin, etc.	352
Clothing	Formalin, etc.	95
Miscellaneous	Formalin, etc.	64
International Deratization Certificates Issued		6
International Deratization Exemption Certificates Issued		10
International Deratization Certificate Exemptions Issued—local Vessels		18

7—Anti-Rat Measures

Poisons Set	15,612
Traps Set	9,369

	Rattus Rattus	Rattus Norvegicus	Other Varieties	Total
Rats Destroyed by Trapping	707	661	477	1,845
Rats Destroyed by Poisoning	244	676	....	920
Rats destroyed by Fumigation—				
Overseas shipping	32	4	....	36
Local shipping	41	28	....	69
Rats submitted for Laboratory examination	36	39	1	76
Rats found infected	....	....	....	....

8—Supervision of Labour Gangs, etc.

Number of men employed, Clearing and Draining Work done, Loads of Refuse removed, etc.—

Number of men employed	243
Land and drains cleaned	4,062 areas
Number of loads of refuse removed	19,436

9—Food Inspection and Sampling

Unsound Foodstuffs condemed and destoyed—155,474 lb. 13 ozs.

Food and Water Samples taken—	
Fresh Water—bacteriological	463
Sea Water and Baths	51
Milk—chemical—genuine	19
Non-genuine	3
Milk—bacteriological—genuine	5
Miscellaneous	7
Meat Inspection—	
Carcases inspected—	
Cattle	162
Pigs	22
Goats	3
	187
Carcases Condemned—	
Organs and parts condemned—	
Liver	16
Hearts	3
Lungs	2
Kidneys	18
Hind quarter	1
Fore quarter	2
Head and Tongue	4

10—Legal Proceedings

Defendants, Offences and Results of Action—

	Public Health Ordinance	Pure Food Ordinance
Cases Taken	81	91
Convictions obtained	75	86
Prohibition Order obtained	1	....
Cases Acquitted	4	....
Cases Withdrawn	1	2
Penalties	£177	£193

11—Remarks and Details of any other Special Works carried out during the Year

Sanitation Campaign

Squatting slabs sold	390
Latrine Plugs sold	371
Pedestal sets sold	74
Pedestal seats sold	26
Pedestal riser sold	42
Revenue from sales of slabs, etc.	£438 13s. 6d.

12—Sea Port and Air Port Health Quarantine

The following are comparative figures in respect of shipping dealt with over the last five years—

	1955	1956	1957	1958	1959
Ships given Pratique	222	240	281	317	253
Landing Passengers	2,902	6,972	6,081	3,461	33,123
Aircraft given Pratique	1,219	1,376	1,763	1,873	633
Landing Passengers	12,597	13,660	13,844	16,861	45,172
Local vessels fumigated	72	80	85	74	64
Overseas vessels fumigated	19	3	2	71	6
Aircraft treated with Aerosols	384	576	539	646	663
International Deratization Certificates	1	4	2	1	6
International Deratization exemption Certificates	....	....	2	5	28

APPENDIX XVI

SUVA GOAL

During 1959, Dr. T. A. U. Clunie was visiting Medical Officer to the Suva Goal.

2. Regular visits were made by the Medical Officer when he saw cases referred by the Assistant Medical Officer and patients in the Infirmary ward.

3. The prison buildings, bakery and warders' compound were inspected regularly.

4. All new admissions to the Gaol were examined. The resident Assistant Medical Officer gave routine daily medical attention to staff and prisoners and there was a total of 4,927 attendances at the dispensary.

5. Fourteen cases of pulmonary tuberculosis were seen. These were old cases. None was admitted to Tamavua Tuberculosis Hospital. No active cases were found among the contacts.

6. In addition to 201 patients ordered dental treatment, there were 5 cases referred to the Colonial War Memorial Hospital.

7. There were 8 psychoses.

8. During the year there was 1 judicial hanging and 8 corporal punishments.

APPENDIX XVII

METEOROLOGICAL REPORTS

The following Meteorological Reports for the year 1959 have been supplied by the Meteorological Office :—

Laucala Bay	
Rainfall—	
Total	131·44″
Normal for 14 years	117·83″
Departure from normal	+13·61″
Wet days (0·01″) or more)	224
Wettest day on June 1st.	7·40″
Temperatures	
Mean Maximum	83·2°F.
Highest Recorded on March 17th	91·2°F.
Mean Minimum	72·1°F.
Lowest Minimum on September 19th	62·0°F.
Mean Temperature ½ (Max. +Min.	77·7°F.
Departure from normal	+0·7°F.
Mean Temperature at 9 a.m.	79·1°F.
Humidity	
Mean humidity at 9 a.m.	79%
Bright Sunshine	
Total hours	1,775·3 hrs.
Mean daily	4·88 hrs.

Suva	
Rainfall—	
Total	142·81″
Normal for 68/69 years	124·25″
Departure from normal	+18·56″
Wet days (0·01″ or more)	209
Wettest day on August 8th	7·50″
Temperatures	
Mean Maximum	83·1°F.
Highest Recorded on January 17th	91·0°F.
Mean Minimum	72·3°F.
Lowest Minimum on September 20th	62·1°F.
Mean Temperature ½ (Max. +Min.)	77·7°F.
Departure from normal	+0·5°F.
Mean Temperature at 9 a.m.	78·9°F.
Humidity	
Mean humidity at 9 a.m.	79%

NOTES

2. *General*—On the whole cloudy, wet and rather warm but with some dry spells. S.E. winds predominated.

3. *Temperatures*—The mean was just on ½°F. above average and extremes ranged from 91·2°F. on March 17th to 62·0°F. on September 19th. All months except May and September were above average and departures ranged from +1·9°F. in August to −0·2°F. in September. February was the hottest month and September the coolest.

4. *Rainfall*—Rainfall ranged from 13·61″ to 18·56″ above average. July was the driest month and the driest July on record at Laucala Bay and it was comparatively dry in the last quarter particularly December. March, April, June, August and September were wet months, August and September having totals considerably above the average. Noticeably dry spells occurred in February, July, the latter half of August and September, the latter part of November and most of December. June 1st was the wettest day at Laucala Bay with 7·40″ and August 8th at Suva with 7·50″.

5. *Winds*—The prevailing wind direction was S.E. with 39 per cent frequency and a mean speed of 7·8 knots. The maximum gust of 46 knots occurred on December 30th. Moderate to fresh occasionally strong S. to S.E. Trade Winds occurred from 18th to 22nd of June and from August 24th to September 16th. A severe hurricane which had previously passed over Vila, New Hebrides, moved E. to E.S.E. and passed a short distance S. of Kadavu and Southern Lau on 29th and 30th of December.