Annual report / Medical Department, Fiji.

LEGISLATIVE COUNCIL OF FIJI COUNCIL PAPER NO. 12 OF 1968

Government of Fiji

MEDICAL DEPARTMENT

ANNUAL REPORT FOR THE YEAR

1966

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MEDICAL DEPARTMENT

(Annual Report for 1966)

I—GENERAL REVIEW

I have the honour to present this account of the work carried out by the Department during 1966 and to place on record the policies followed, the successes achieved and the disappointments experienced during the year.

2. Nineteen sixty-six was of special significance because it inaugurated the 1966–70 development plan. The medical sector of this plan is basically a re-statement of the medical content of its shortlived predecessor (the 1964–68 plan) together with such minor modifications as have been indicated by the passage of time. The main emphasis of the current plan is on the overhauling, re-shaping and adaptation of the existing medical structure rather than on its proliferation and extension. It must however be admitted that the reasons for this were largely financial and the prospect of staff shortages occasioned by a limitation of entry into the Fiji School of Medicine effected in the late fifties and early sixties and occasioned by the financial climate of the time.

3. It is generally agreed that the organisational shape of a Medical Service is best based on a structural framework strong enough to provide cohesion and integration between the various components and able to provide a firm foundation on which new services can be efficiently and economically grafted.

4. Historically, health services were almost entirely curative and this general pattern continued until the upsurge in the importance of preventive medicine at the end of the last century, when a second and perhaps a more important plane was added to organisational models. The new parameter pointed almost entirely in the direction of the prevention of diseases of contemporary importance and this was to be expected both from the point of view of priorities and because health, as a conception, had not then progressed beyond the point where it was considered to be a mere absence of disease.

5. The relatively recent addition of a third plane to the structural model of health administrations resulted from overcoming the mental block caused by this negative conception of health and the emergence of a new definition whereby health is now considered in the positive terms of complete physical, mental and social well-being. In consequence the third plane's structural members are taken up with the numerous measures and factors to do with the raising of living standards rather than directly with the prevention or cure of disease.

6. It will be appreciated in consequence, that this third plane reaches out to the boundaries of economic development, so that the line of cleavage between health, economics, housing and welfare and the like, becomes increasingly difficult to define and it is not surprising that these subjects are variously distributed among related ministries in various countries.

7. This general pattern of the evolution of a medical organisation has been followed in Fiji, starting with the rapid proliferation of clinical services at the turn of the century and the more recent development of traditional preventive services aimed at the elimination of our main disease problems such as tuberculosis, leprosy, diphtheria, tetanus, filariasis and the like. This report now records the emergence of a clear pattern of a tertiary plane structure and its development will, no doubt, play a considerable part in medical policy in the years to come.

8. Clinical services in Fiji are often hampered by old buildings which are largely unsuited to efficient administration and the demands of modern medicine. The opening during the year of a new 15 bed maternity unit at Nausori, together with the commencement of two identical units at Nadi and Tavua and a new hospital for Savusavu should therefore be viewed with more than passing interest.

9. The report also records the steps which have been taken during the year to improve the clinical elements of our medical structure. Such examples include additions to the consultant establishment, the completion of a new residential hostel for students, the modernisation of individual hospital departments, and the provision of additional and improved medical and dental equipment.

10. However the biggest problem faced by the clinical and dental services is to satisfy the increasing public demand for services, which has already saturated the available facilities. The small size of the private health sector represented by a few general practitioners and one hospital of any size (the Methodist Hospital at Ba) has meant that the Government Medical Service has gradually assumed the shape, if not the dimensions of a comprehensive national health service, with the added responsibility for medical education. Complaints about unduly long out-patient waiting times, should therefore be viewed in this context and against the background that the national health services of affluent countries, who are not immune from similar complaints, have at their disposal at least three times the medical staff, three times the out-patient and in-patient capacity, and ten times the *per capita* financial allocation.

11. The achievement of the range and volume of medical services described in this report, with so modest a budget, has required the constant exercise of attention to fiscal detail and economy by staff, and has stimulated the introduction of cost accounting methods which are worked side by side with traditional Government accounting methods. In this context it will be noted that the

percentage of the national recurrent budget devoted to health, which fell consecutively from 13·82 per cent. in 1952 to 10.53 per cent. in 1963 rose marginally to 10·73 per cent. in 1966. This rise is almost entirely due to increases in wages and salaries and very little to the increasing cost of supplies which have been kept remarkably stable over the last ten years by the exercise of economies within the supply sector. The fact that a considerable increase in the quality and quantity of services has been effected in recent years while " MEDICINE " has been allocated a decreasing share of the national budget indicates the level of economy which has been achieved by a complete reorganisation of the structural shape of the Department but it has also meant that important units of the clinical machine have no operational reserve and some units are indeed dangerously overloaded.

12. It will also be noted that there was a modest fall in the revenue collected by the Department, but careful examination will reveal that this is almost entirely due to a fall in revenue paid by overseas administrations for the care of their leprosy patients at Makogai and for their students at the Fiji School of Medicine. The former bears witness to the efficacy of the modern treatment of leprosy and the latter is more apparent than real. It should not however be overlooked that revenue from our hospital services rose above the £100,000 mark for the first time in the history of Fiji !

13. The implications of a population growth which in recent years exceeded 4 per cent. per annum are manifold and the Department generally and in particular those most closely concerned with Family Planning can be justly proud of the success of the campaign, and particularly of the reduction of population growth in 1966 to below 3 per cent. for the first time in modern times. It is considered that this achievement is a significant milestone on the path towards our target, which is the reduction of the birth rate to below 30/1,000 population by 1970. A study of the relevant figures will show that the annual number of births has been stabilised at around 16,500 for the past five years and it will be appreciated that this will have the immediate effect of producing capital savings on the provision of additional obstetric, paediatric and educational facilities. The further reduction of the natural increase to 2 per cent. per year will ensure that population growth does not outpace the rate of economic growth thus effecting a rise in our standard of living which is the main aim of our tertiary plane services.

14. The past few years have witnessed a considerable strengthening and expansion of the preventive services and some of the first fruits of this work are recorded in this report. These include the reduction of the incidence of tuberculosis to less than one case in every thousand of population which permitted the closure of a ward at Tamavua Hospital at the close of the year.

15. The need to integrate public health and clinical services, especially in country areas, has demanded a complete reorganisation and the rebuilding of many facilities. This reorganisation which includes the dissection of each of the four divisions into three or four sub-districts each to be under the control of a medical officer trained in public health administration, is proceeding according to plan and the new pattern of our services can now be seen to be emerging from the background.

16. While notable progress has been made at several points on the preventive spectrum an unfortunate exception is the rapid increase over the last few years in the incidence of gonorrhoea. Indeed it has become painfully obvious that it will be necessary to divert a greater proportion of our preventive effort to its control if we are to avoid the disease becoming a new and overwhelming problem, just at the time when success over our traditional public health enemies seems assured.

17. And so it is that, judged against such indices as the crude death rate, infant mortality and disease statistics, Fiji already has health standards which are denied to large areas of the world but, when one proceeds to assess the positivity of this health and the standard of living, social development, housing, nutrition and the like, we soon appreciate that we still have a long road ahead.

18. It is necessary to develop, therefore, the third plane of our organisational model before any degree of structural strength can be achieved and this report includes several examples of preliminary steps which the Department has taken to this end. The first objective was to achieve a general acceptance and understanding of the problems and this has been largely achieved by the use of health education methods.

19. The major contribution being made by the Department towards the improvement of living standards through the Family Planning Campaign has already been noted and the measures being taken to assist in the improvement of environmental standards, especially in rural areas, are described in full in the appropriate sections.

20. To conclude this introduction to the 1966 Annual Report, I must acknowledge the considerable debt owed by the Department to the many organisations and individuals who have assisted us in our work. Although the singling out of examples is always fraught with danger, I must mention the enormous debt the Department owes to the World Health Organisation and the United Children's Fund who have rendered invaluable assistance to our preventive programmes, the Royal New Zealand Air Force for their indispensable assistance, the New Zealand Lepers Trust Board who can rightly claim a large share of the credit for the remarkable reduction in the incidence of leprosy in Fiji, the Freedom from Hunger Campaign and the Oxford Committee for Famine Relief for their invaluable help and the Trustees of the War Memorial Anti-Tuberculosis Trust Fund for their generosity in providing much of the expensive equipment necessary to launch our Tuberculosis Campaign. Above all however we are grateful for the support given by the people of Fiji, whether as individuals or through such organisations as the service clubs, St. John Ambulance Brigade and the British Red Cross Society.

21. Lastly, I wish to thank the members of all sections of the Department for their hard work and loyalty without which this report would have been quite a different matter.

II—ORGANISATION, ESTABLISHMENT AND FINANCE

Organisation

22. Fiji is an archipelago of over 500 islands, of which about 100 are permanently inhabited; it lies astride the 180th meridian of longitude, between 15 and 22 degrees south of the equator. The land area of the group is 7,040 square miles (18,233 square kilometers) and the population on 31st December, 1966, was estimated to be 483,287, giving an overall population density of 68·66 persons to the square mile (26·51 per kilometer). The population density is, in fact, very variable with high concentrations in the urban areas and very low densities in much of the rural part of the country.

23. To provide medical and dental services for this population there were, at the 31st December, 1966, 192 physicians, one for every 2,517 persons; 28 dentists, one for each 17,260 of the population and 598 nurses—one for every 808 persons. Of these, by far the larger proportion are in Government Service; the figures being 168 physicians, 22 dentists and 578 nurses.

24. It will be seen, therefore, that the main burden of providing the whole range of health care for the population of Fiji falls upon an organisation financed from public funds; the private sector is very small by comparison. This care is made available by the services of the Medical Department of the Central Government.

25. The Medical Department is within the portfolio of the Member for Social Services, who is charged with the general oversight of medical policy throughout the Colony, the Director of Medical Services being responsible for its execution.

26. The Department is organised in such a way as to provide, as far as possible, a close integration of curative and preventive services; this integration is most fully developed in the rural areas, where its need is greatest. As Head of the Department, the Director of Medical Services is responsible for the administration of all facets of the Department's work. He is assisted at headquarters by a small staff of professional and lay administrative personnel.

27. For administrative purposes, the Colony is divided into four medical divisions which are coterminous with the general administrative divisions of the country; each of these is in the charge of a Divisional Medical Officer who is responsible for all the services provided by the Medical Department within his division. Exceptions to the pattern are found in the Central and Eastern Divisions in which the Colonial War Memorial Hospital—the Colony's specialist centre—and the three specialised hospitals (for tuberculosis, leprosy and mental diseases respectively) are under the control of Medical Superintendents who are directly responsible to the Director of Medical Services.

28. At a lower level of responsibility is the Sub-District Medical Officer. He is responsible to the Divisional Medical Officer for the Department's work within his sub-district; an area which corresponds roughly, though not precisely, with the district of the District Administration. Whilst the Sub-District Medical Officer plays a most useful role on the administrative side of the Department's work, his chief role—and the primary reason for the devolution of authority to him—is as the leader of the public health team within his area and his value is carrying out public health programmes. Apart from his ability to call on the services of the area medical officers and district nurses within his district, the Sub-District Medical Officer has available to him the services of a Health Sister and Health Inspector at his station. By making effective use of the team available to him, he is in a position to carry out much of the detailed planning for and implementation of Departmental programmes. The Sub-District organisation, which was started in 1964 has been enlarged as facilities have become available and it was expended during 1966, by the opening of an additional Sub-District Station at Nabouwalu. This scheme has proved itself to be of the utmost value; it has resulted in increased administrative efficiency, a closer integration of services and a considerable rise in the standard of health services available to the public.

29. At " grass roots " level, the area medical officer is responsible for the clinical and public health services within his district and has the district nurses in the villages to assist him.

30. The distribution of medical stations should ideally be dependent upon the population distribution and this precept is followed where possible. However, there are other factors which have to be taken into account. Firstly, some of the existing stations were established many years ago when population distribution and communications were very different from what they are today; there are thus some apparently illogically sited stations in use. It is difficult in practice, though not perhaps in theory, to remove easily available services to which people have become accustomed over long periods of time. Secondly, geographical isolation may well justify the provision of services, to relatively small populations, of a standard which would otherwise not be warranted.

31. Within a country which comprises many small islands and isolated settlements, there are special problems in providing health services of a reasonable standard at an economic cost. Without the resources to provide on the spot coverage to all these communities, the emphasis must be placed on mobility. The Medical Department thus makes considerable use of water-borne transport. At the end of the year the Department had two ships—the m.v. *Vuniwai* and the a.k. *Makogai*—and four launches in commission, with a fifth launch in an advanced stage of construction.

32. The m.v. *Vuniwai*, of 112 tons gross register, was put into service in 1965. During the year she has amply proved her worth, being used for the carriage of stores and personnel, the anti-tuberculosis campaign and the evacuation of seriously ill patients from the outlying islands of the group, in addition to other purposes such as routine visits of inspection and public health tours. During the course of the year, the vessel sailed 12,675 miles and carried out 12 emergency evacuations.

33. The a.k. *Makogai*, apart from her usual routine duties of the carriage of stores and patients to the Fiji Leprosy Hospital on the island of Makogai was used extensively during the year for the transport of patients to and from their homes on leave. This resulted in a much better control of the patients and a considerable reduction in expenditure as compared with the use of commercial shipping.

34. The launches are used for the routine and emergency transport of Medical Officers and patients in isolated coastal areas.

35. The transport of seriously ill patients from outlying islands to the larger centres is always a difficult problem. Apart from those operations carried out by the m.v. *Vuniwai*, the Department was again, as so often in the past, able to call upon the services of the Royal New Zealand Air Force when the nature of the case warranted it. It is not possible to speak too highly of the, always willing, help which the Medical Department, and indeed the people of Fiji as a whole, have received in this regard over a long period of time. Whenever operational requirements have permitted it, our requests for help have been met with courtesy and an eagerness to help, often at considerable inconvenience to the officers and men of that Service, which has always been unfailing. During the year it was necessary to ask for assistance on five occasions. Nineteen sixty-six was the last full year in which the services of the Royal New Zealand Air Force were available for this purpose. Records, which are admittedly incomplete in respect of earlier years, show that since 1949 this emergency service was made use of on no less than 140 occasions within Fiji; a very fine record of service to the community.

Establishment

36. The establishment of the Department for the year 1966 is given in Table I of the Appendix.

37. The shortage of Medical Officers continued to cause difficulties in the maintenance of a proper standard of service. Part of this shortage was due to the lack of new graduates from the Fiji School of Medicine, part to the difficulties of recruitment from overseas. The salaries offered in Fiji are insufficient to attract recruits from Australia and New Zealand, and with the present shortage of doctors in the United Kingdom, the opportunities offered here compare unfavourably with those in other parts of the world. Nor are the salaries such as to attract and retain locally-born, overseas qualified, candidates. In order to maintain services it has been necessary to continue the employment of retired local graduates.

38. During 1966, a further four locally qualified Medical Officers were promoted to the Medical Officer Class I grade.

39. The position in regard to nursing staff was, in contrast to that of Medical Officers, satisfactory. With the output from the Nursing Schools, it is possible to fill all the more junior posts in the Nurising Division and the overseas recruitment of sisters is now only occasionally necessary. Similarly, the majority of the senior posts in the Department are now filled by the promotion of serving officers. Of the 88 posts of Sister and above, only 9 were filled by expatriates in 1966.

40. With the exception of two senior posts, all the technical posts in the Department are filled locally, the great majority of these by people trained in Suva.

Legislation

41. The following legislation of medical interest was enacted during the course of the year:—

Ordinance No. 12—Public Health (Amendment) Ordinance.
Ordinance No. 37—Law Revision (Miscellaneous Amendments) (No. 2) Ordinance.
Legal Notice No. 8—Employment (Medical Treatment) Regulations.
Legal Notice No. 106—Public Hospitals and Dispensaries (Amendment) Regulations.
Legal Notice No. 143—Fijian Affairs (Public Health) (Revocation) Regulations.
Legal Notice No. 179—Public Health Ordinance; Application to Fijian Villages Order.
Legal Notice No. 189—Application of the Public Health (Sanitary Services) Regulations to the Nasinu Area.
Legal Notice No. 214—Nurses and Midwives (Revocation) Rules.
Legal Notice No. 215—Public Health (Forms) Regulations.

42. Much of this legislation was of a routine or consequential nature. However, the Employment (Medical Treatment) Regulations represented a change in Government policy in relation to the provision of social services for employees. These Regulations place upon employers the responsibility, within broadly defined limits, for the provision of medical attention and treatment of their employees and, in some circumstances, the employees families. Whilst Fiji has had, for many years, legislation relating to workmen's compensation, these regulations have served to broaden the scope of an employer's responsibilities in the field of medical treatment very considerably.

43. Three of the items passed during the year had the effect of bringing Fijian villages more closely into the ambit of the general public health laws of the Colony. This development is welcomed as a further opportunity for the Department to be able to make a positive contribution towards the improvement of rural health standards.

44. The Medical Department is responsible for the administration of a considerable body of legislation designed to protect the health of the community; much of it being complex and technical in nature. For the effective carrying out of this work, staff is required and the Department's efforts have been hampered in some degree by a shortage of staff during the year. The situation is particularly difficult in relation to the requirements of the Pharmacy and Poisons and Dangerous Drugs Ordinances, both of which require a high degree of technical knowledge for their effective enforcement.

45. With the present organisation available to us, a great deal of reliance has to be placed upon the staff of the Customs Department in controlling the importation of substances restricted by the Pharmacy and Poisons Ordinance. Inter-departmental co-operation in this regard is excellent, and the Customs staff are always anxious to assist in every way open to them; with the proliferation of substances subject to restriction (often commonly called by proprietary names) and their increasing use in an ever widening variety of occupations, however, it is manifestly impossible for persons without the requisite training to be able to recognise all these items in their various guises. There is some evidence that items so restricted have been improperly imported during the year—often, perhaps, in ignorance of the law—and the matter is under continuing investigation.

46. The position in regard to the Dangerous Drugs Ordinance and the substances controlled by it is more satisfactory since international and legislative control is much closer. Fiji's legislation is, in some respects, much more restrictive than in the United Kingdom, and has been so since 1963. This legislation certainly limits the chances of over prescribing but does not, on the other hand, appear to interfere unduly with the freedom of doctors to treat their patients as they consider necessary. There is no evidence of an increase in drug addiction in Fiji. Of the eleven registered addicts (and registration is a legal requirement) the majority are elderly persons who are addicted to opium and were so addicted before they arrived in the Colony.

47. There were 30 registrations under the requirements of the Medical and Dental Practitioners Ordinance during 1966. There were no erasures from the Register; all removals were as a consequence of the death or permanent departure from the Colony of the practitioners concerned.

Finance

48. The services provided by the Medical Department are financed from Central Government funds and expenditure during the year was £1,350,774, an increase of £123,347 over that of 1965.

49. Medical treatment in Fiji is not free. There is a wide schedule of charges which are applied, but for the man in the street, consultation is available at a cost of 1s. 0d. per attendance and hospital treatment at a cost of 2s. 0d. per day subject to a maximum charge of £2 2s. 0d. This charge includes all treatment and specialised examinations. In order to overcome many of the problems which must arise when fees are charged for medical services, there is a range of statutory exemptions from these charges; examples are for women attending ante-natal clinics; children under 10 years of age; attendance for the treatment of tuberculosis; the indigent, when in possession of exemption certificates, etc. Fees from this source provide the greater part of Departmental revenue, but charges are also made for a variety of other services provided such as for the fumigating vessel, the training of overseas students at the Fiji School of Medicine, etc.

50. Total revenue in 1966 was £154,040, giving a net expenditure for the year of £1,196,734 and a cost of £2 9s. 6d. per head of population for the year.

51. Details of this expenditure and revenue will be found in Tables II, III, IV and V of the Appendix. In addition to the revenue given in those tables there is some "hidden revenue", i.e. fees paid for services rendered by the Medical Department but collected elsewhere, viz.:—

	£	s.	d.
Proportion of money collected by Township Boards for licences that is retained by Government as payment for health services	5,227	0	0
Money paid by Fiji Military Forces for the services of a Medical Officer (including pension contribution) ..	517	12	3
Board paid by Medical Officers and Nurses living in ..	12,755	5	6
	£18,499	17	9

52. Medical stores and equipment to the value of £127,072 1s. 9d. were issued in 1966 and details of this will be found in Table V of the Appendix.

53. The control of finance in a Department such as this poses a number of problems, not the least of which is to see that the Department obtains value for money. Within the last few years, attempts have been made to introduce simple costing procedures on an experimental basis. The inadequacy of the figures collected, and their lack of the statistical validity are recognised; but they are a start towards more sophisticated systems which it is hoped to introduce in the future.

III—CLINICAL SERVICES

GENERAL HOSPITALS, HEALTH CENTRES AND DISPENSARIES

54. The Medical Department has to provide the great bulk of clinical services available to the people of Fiji; there are few private practitioners and, with the exception of two institutions run by missions, no private hospitals in the Colony. It is thus necessary to provide a range which varies from general practitioner services to specialist hospital facilities.

Health Centres and Dispensaries

55. The backbone of the clinical services is the rural health centre or dispensary. These units, many of which were started 40 or more years ago, provide the general practice facilities to the bulk of the population. Additionally, they act as the basis from which Medical Officers undertake their many public health duties within their areas. It is accepted nowadays that the ideal dispersion of units of this type should be such that a centre can be reached in two hours by the usual method of travel. Within much of Fiji this criterion is met, especially on the two main

islands of Viti Levu and Vanua Levu. However, in the inland parts of these two islands and in the smaller islands of the group the population densities are too low to permit of this; conversely, of course, in some of the peri-urban areas densities are so high as to demand a closer distribution of centres. The determination of the proper distribution in the latter areas is not easy; criteria which are applied elsewhere are not necessarily relevant to Fiji, and the matter is presently under review.

56. Over the past few years, a programme has been in operation of upgrading the old dispensary type of rural unit to a more modern health centre. Two types of health centre have been designed; a small one with provision for a Medical Officer and district nurse to work from, and a larger type to provide accommodation for medical officer, health sister and district nurses, dental officer and simple operating facilities.

57. No new units were completed during 1966, but at the end of the year construction was well advanced on the Korovou and Tavua Health Centres, both of the larger type. Additionally, an X-ray and laboratory were added to the Nausori Health Centre.

58. As always, a great deal of work has been carried out at this level during the past twelve months. The total number of consultations was 335,204; details are given in Table VIII of the Appendix. It may well appear, at first sight, as though some of these stations are grossly under-utilised. However, the figures do not take account of the public health activities of the Medical Officers at these stations; nor, of course, do they reflect the need in some areas with poor communications to provide a Medical Officer to deal with emergencies which may arise and where the evacuation of seriously ill patients is extremely difficult.

Rural and District Hospitals

59. There are six district and eight rural hospitals in Fiji. All these are old institutions, built many years ago as provincial hospitals and with no adequate plan. They were at that time adequate for the work which they were required to do, but over the years the increasing population of the country and the increased demands for medical services have combined to make them grossly inadequate for present-day use.

60. A programme of upgrading, improvement and reconstruction has been in operation over the past few years. Some of these hospitals have been upgraded to District Hospital status by improving the staff and facilities, whilst minor improvements have been carried out on the others.

61. During 1966 a new X-ray and laboratory unit was added to the Nadi Hospital; the money for the building was a donation from local philanthropists, the equipment being provided by the Medical Department. Work was started on a replacement for the Savusavu Hospital by a new unit of 56 beds. The design for this was prepared by a local architect and construction is being undertaken by the Public Works Department; good progress had been made by the end of the year.

62. Details of the work of these hospitals will be found in Table IX of the Appendix. It will be noted that some of the occupancy rates are very low. Part of this is, of course, an inherent factor of the operation of small hospitals; part of it is due to the improvements in communications and a consequent lessening of the need for these institutions; one of them, Wainibokasi, was derated from 44 to 12 beds during the year consequent upon the opening of the Nausori Maternity Hospital.

63. During 1966 these hospitals dealt with 148,135 out-patients, 18,195 fewer than in 1965 and 11,582 in-patients, 381 fewer than in the previous year.

Rural Maternity Hospitals

64. Nineteen sixty-six saw the opening of the first of these units at Nausori; the opening ceremony was performed on the 26th July by Mr. A. D. Patel, Member for Social Services.

65. Although domiciliary midwifery services are provided by district nurses in the truly rural areas of Fiji and hospital maternity units cater for those in the larger urban centres, there has arisen a problem in providing adequate services for women in the peri-urban and closely settled rural areas in the last few years. The population in these areas is increasing rapidly and it has become increasingly difficult to provide for them adequate domiciliary maternity services; they have thus tended to make use of the maternity units (already over-burdened) in the larger general hospitals thus increasing the load upon them and, equally importantly, laying these patients open to the risk of premature delivery whilst on the way to hospital or leading to delay in obtaining help in the event that complications occur.

66. It was therefore decided to provide small, but adequate, maternity units for these areas. They have been designed by the Public Works Department, with the brief being provided by this Department. The design makes provision for an ante-natal clinic, fifteen beds, labour and operating rooms and has accommodation for a Sister and eight Nurses. It is planned that each will be in the charge of a Medical Officer with post-graduate training in obstetrics and be built as part of a medical complex.

67. Apart from the one completed at Nausori adjacent to the Health Centre, work was started on a second at Tavua as part of the medical station there, and a third at Nadi as part of the hospital.

68. From the date of its opening until the end of the year, 426 patients were admitted to the Nausori unit; 332 of these were delivered of 334 children. There were no maternal deaths and one neonatal death.

Divisional Hospitals

69. There are four divisional hospitals in the Colony; the Colonial War Memorial Hospital in Suva and the Lautoka, Labasa and Levuka Hospitals. These institutions provide in-patient and out-patient services for the population in their immediate vicinity and also act as base hospitals for their divisions, accepting patients who cannot be dealt with by the smaller units; the Colonial War Memorial Hospital is also a centre of referral from the other divisional hospitals and, indeed, for other territories in the South Pacific, as it is the largest and most comprehensively staffed hospital in the area.

70. Further improvements were made to the Suva hospital during 1966. The alterations consequent on the opening, in 1965, of the new out-patient operating theatre block were completed and as a result the facilities in the male surgical ward and eye department were much improved. Work on the staff canteen and a new ante-natal clinic was far advanced by the end of the year.

71. We are, however, having to run fast to remain on the same spot. The number of out-patient consultations at this hospital rose during 1966 by 16,733; the number of admissions to the hospital increased by 947 and the general level of occupancy is so high as to cause very grave concern. The overall rate for the hospital during 1966 was 100 per cent.; no institution can safely continue at this level and the provision of further facilities has now become a matter of urgency. This subject is discussed further in the section on hospital utilisation.

72. The Colonial War Memorial Hospital continued to act as a clinical centre for other territories in the South Pacific and a number of patients were referred for treatment not available in their home countries.

73. With the increase in the number of patients dealt with at the hospital, all the units—with the exception of the obstetric unit—had a considerable increase in work. A total of 3,889 operations were performed in the main and casualty operating theatres and this has caused some strain on the resources available, particularly amongst the small staff of anaesthetists; 20,511 patients were dealt with by the X-ray department, 22,204 examinations being carried out.

74. The paediatric unit had its first full year of operation with a specialist paediatrician and local graduate registrar with post-graduate training in the subject. Despite some difficulties, inseparable from the local context, the availability of specialist staff has been of great help, both for the staff of the hospital and for the other institutions of the Department. A nephrosis clinic was started during the year; although these children require much supervision and frequent admissions, its success has been proved by the fact that none of these patients were lost.

75. The staff of the ophthalmic unit, in addition to their hospital work, carried out one field survey during 1966 and confirmed the low incidence of trachoma which was thought to exist.

76. The Lautoka Hospital provides out-patient and in-patient services for its immediately surrounding area and is additionally the base hospital for the Western Division. Towards the end of the year, a Consultant Physician was posted to this hospital and it now has consultant units in the three main specialties. This has enabled us greatly to improve the standard of service offered to the public.

77. Planning work on the new hospital for Lautoka was completed during the year. Because of these plans for replacement, no major building work was undertaken, but a number of essential improvements were made in order to maintain services until the completion of the new hospital. It should now be possible to maintain hospital services here at an acceptable level for the next few years; an exception must, however, be made in the case of the out-patients' department, the deficiencies of which can be eradicated only by complete rebuilding.

78. There was a fall in the numbers of both out-patients (19,945 less than in 1965) and of in-patients (160 less) treated at this hospital during the year. This drop in the case load was a welcome respite and the hospital is, presently, operating within the limits of safety. Despite this, the difficulties inherent in the poorly planned lay-out of this institution make its operation inefficient and uneconomic.

79. Apart from the construction of a new laundry, only minor improvements were undertaken at the Labasa Hospital, the divisional hospital in the Northern Division.

80. There was an increase in the number of out-patient consultations held at the hospital in 1966 as compared with the previous year, but a small decrease of 68 in the number of in-patient admissions.

81. Taken as a whole, the hospital was operating well within its physical capacity, though the load on the medical and surgical wards was above accepted limits.

82. The small 40-bed hospital at Levuka is the divisional hospital for the Eastern Division. Because of the geographical makeup of this part of Fiji—a number of widely scattered islands—and of the relative proximity of Levuka to Suva, most of the more serious clinical emergencies in this Division are evacuated, by sea or air, directly to the Suva hospitals. This obviates the need for a large and more elaborate institution at Levuka.

83. Nevertheless, this hospital serves a very useful purpose and the number of patients treated continues to grow. In 1966 there was an increase of 709 in out-patient consultations and of 146 in in-patient admissions.

Hospital Staffing

84. In common with the rest of the Department, the Colony's hospitals suffered from the shortage of Medical Officers of all classes during 1966. The overall increase in patient loads and the need to widen the scope of the work carried out in, especially the larger institutions, have resulted in hospital doctors having to work long hours under great pressure.

85. The routine clinical work in hospitals is almost entirely carried out by local graduates and they have, over the years, been able to shoulder more and more of the burden of more specialised duties. Locally qualified Medical Officers with the required aptitudes receive, after a period of general duties, training during attachment to one or other of the specialist units. This is followed where possible by an extended period of post-graduate training overseas; much valuable help in this regard has been received from the World Health Organization by the provision of funds, and by the University of Melbourne and the Auckland Hospital Board who have accepted our students for training.

86. These Medical Officers are then in a position to act as senior assistants to the specialists in the main hospitals and to non-specialist units in their own right in smaller institutions. In this way, it has been possible greatly to increase the scope of specialist services available to the public.

87. Fiji is in a more fortunate position than are many other countries of the world in relation to hospital nursing staff, for we are unaffected by the acute shortage which troubles so many of them. There is a number of reasons for this but among the most important are perhaps firstly that nursing has always been a popular career with Fijian and Indian girls—indeed, it has for a long time been one of the few professions open to them in Fiji—secondly that, since both training and subsequent employment are controlled by the same authority, the intake into the training schools can be related to staffing requirements and thirdly the policy, which has been followed for many years, of freely employing married nurses thus avoiding the open-ended situation which exists in those countries where this policy has been less actively pursued.

88. Of technical staff for employment in hospitals the supply is adequate when related to our capacity to pay for them, except for pharmacists, of whom, like most countries in the world, we have too few.

Patterns of Disease

89. At Table XXVII of the Appendix will be found a racial breakdown of the patients discharged from the four divisional hospitals and the Tamavua Tuberculosis Hospital classified according to a modification of the World Health Organization 150 Cause List Classification.

90. The table should be read bearing in mind the fact that it refers to episodes of illness rather than new cases; a patient suffering from a chronic disease which relapses during the year thus necessitating a second admission would appear as two discharges in the table.

91. It will be seen that the disease pattern of patients treated in hospital is not unlike that found in, for example, the United Kingdom; the main differences are the relatively small number of cases of the degenerative diseases (a reflection of the youth of the population) and the large number of cases of tuberculosis, this last being due in part to the inclusion of figures from the Tamavua Hospital.

92. A further minor point of interest is seen in the "E" Classification of accidents by cause. The rate for motor vehicle accidents is low; although there has been a marked increase in the number of vehicles registered in the past four years, the rate for these accidents has remained fairly steady. It is thought that this is at least partly attributable to the lack of high speed roads in Fiji, the existing winding, gravel roads have at least the merit of inhibiting excessive speed. Another contributing factor is considered to be the small number of motor-cycles in use.

93. The relatively large number of accidental falls is also not without interest. The highest incidence of these is usually during the mango season, and the patients tend to be of the male sex and below the age of 20!

Hospital Utilisation

94. There are 1,699 hospital beds available in the Colony; the details will be found in Tables VI and VII of the Appendix. The bed/population ratios based on the mid-year population for the main broad classifications are:—

	Number of beds	*Beds*/1,000
General	991	2·07
Tuberculosis	410	0·86
Psychiatric	98	0·21
Leprosy	200	0·42
	1,699	3·56

95. Excluding the three specialised hospitals, there was a small rise in the number of out-patients seen throughout the Colony in 1966 (Table XI), as compared with the previous year, but a fall in the number of in-patients (Table XII). As a result, there were small, but welcome falls in the ratios of both out-patient attendances and in-patient admissions per thousand of the population.

TABLE I

OUT-PATIENT ATTENDANCES AND IN-PATIENT ADMISSIONS 1957 TO 1966

Year	Mid-year Population	Out-Patient Attendances	Out-Patient Attendances per 1,000 Population	In-Patient Admissions	In-Patient per 1,000 Population
1966 ..	477,518	822,337	1,722	31,772	66
1965 ..	464,178	831,286	1,791	31,222	69
1964 ..	449,176	808,630	1 800	31,388	70
1963 ..	434,459	690,452	1,589	28,915	66
1962 ..	420,869	697,412	1,657	27,399	65
1961 ..	407 443	826,395	2,028	21,784	53
1960 ..	394,332	700,738	1,777	28,359	72
1959 ..	380,965	637,647	1,674	25,311	66
1958 ..	367,661	590,045	1,605	24,809	67
1957 ..	354,195	431,978	1,220	20 946	59

96. Whilst this is a welcome trend, the Colony-wide figure conceals some very disquieting facts, particularly in relation to the Colonial War Memorial Hospital. The overall occupancy index for this instutition is 1·0, with an average length of stay of 10·6 days, which cannot be regarded as being unreasonably long. This implies, of course, that the hospital is in fact operating at above its capacity for part of the year; indeed more detailed examination reveals that both the Medical and Surgical Units had occupancy indices of 1·13, a continuation of the trend of previous years. This situation is a potentially very dangerous one; there is no room for manoeuvre in the event of the medical side having to cope with an epidemic and the dangers of cross-infection, especially for post-operative surgical cases, are ever-present.

97. The occupancy of the Anderson Maternity Unit at this hospital underwent a welcome fall in the year following on the opening of the new rural maternity unit at Nausori.

98. At the other divisional hospitals, the situation is less worrying, although the indices for the medical and surgical wards at the Labasa Hospital are rising over the acceptable limit. A similarly acceptable situation obtains at the three specialised hospitals. Indeed, it was possible to close one ward completely at the tuberculosis hospital and to divert some beds to general long-term use, and to accept a reallocation of space at St. Giles' Mental Hospital which resulted in the closure of 10 beds.

99. In the case of most of the district and rural hospitals, utilisation is either within the acceptable limits of normality or is, indeed uneconomically low, a situation for which there are several contributing factors. Firstly, small isolated hospitals are inherently inefficient from this point of view and secondly, these hospitals were all built when communications and health standards were less good than they now are. Thus, there is less need for the admission of relatively minor complaints which are susceptible to modern drugs, whilst it is easier—and indeed more desirable—to evacuate seriously ill patients to properly equipped base hospitals.

100. Table XIII gives Details of Hospital Utilisation indices.

101. One complaint which is not infrequently made by the public in Fiji—and indeed in many other countries—is of the length of time which out-patients are required to wait before they are seen by the doctor in charge of the clinic. In some cases, for example, Specialist Clinics, to which patients are in the main referred by other doctors, it is possible to operate with varying degrees of success, an appointment system. In General Out-Patient Clinics, on the other hand, which are open to all on an " on demand " basis this is not possible and it is a matter of " first come first served ". In many places the situation is worsened by the fact that patients are forced to arrive in " batches " as a result of public transport arrangements.

102. It is difficult to produce a solution to this problem; the provision of additional staff, when available, will help but this is a long-term answer. Much could be done by the public themselves to cut down numbers for there is undoubtedly a large proportion of patients who attend these clinics unnecessarily; many of the ailments which bring people to our clinics could well be dealt with at home by simple remedies. Many of these ailments, indeed, are so easily susceptible to preventive measures that they should not occur at all.

Psychiatric Services

103. St. Giles' Hospital, Suva, is the only hospital for mental illness in the Colony. It is under the charge of the Consultant Psychiatrist who is Medical Superintendent and who is assisted by two locally qualified registrars who have received post-graduate training in psychiatry overseas.

104. During the year further extensive improvements were carried out to the hospital which has greatly increased the amount of day space and recreation accommodation. This has, however, resulted in some loss of ward accommodation and the bed strength has had to be reduced from 108 to 98. There was, in consequence, some slight overcrowding in the first quarter of the year. This was combatted by vigorous prosecution of early treatment and discharge and by redoubled therapeutic pressure on the medium and long-stay patients. There was also a slight but fortunate decrease in the number of admissions. As a result of these factors the average daily number of in-patients was kept down to 91·8 which gives an occupancy rate of 93·7 per cent.

105. Another improvement carried out to the hospital during the year was the demolition of a large part of the encircling wall and its replacement by a wire fence placed out of sight below the brow of the hill on which the hospital is situated. This has increased the gardens and greatly enhanced the ventilation of the hospital as well as contributing to the sense of freedom of the patients.

106. There were in all 228 admissions during the year. Of these 144 were re-admissions which, at 63 per cent., is a slightly higher re-admission rate than the 62 per cent. reported in 1965. The re-admission rate, has, in fact, been slowly climbing for years but this has to be accepted as the inevitable concomitant of a policy of early discharge after the first admission.

107. The diagnostic classification of the 84 new admissions was as follows:—

Tantrums, frenzies and short schizophrenia-like illness	30
Attacks of mania	16
Established schizophrenia	14
Attacks of depression	10
Psychopathy, hysteria and neurosis	4
Toxic and metabolic psychosis	1
Epileptic furies and confusions	4
Senile and other organic states	2
Outbursts in mental defectives	3
Total	84

108. It will perhaps be remembered that, in the report for 1965, mention was made of the " Fiji Syndrome ". This condition has not been referred to as such on the present occasion since it was discovered during 1966 that the syndrome is not specific to Fiji and is well known to Medical Officers in other South Pacific territories. It appears that persons resident in this part of the world are liable, for a variety of causes, to burst out in a transient, paroxysmal, frenzied turmoil of excitement or confusion with or without a corresponding degree of psychotic disturbance such as thought disorder, hallucinations, delusions and disturbances of the will. One is often surprised by the triviality of the cause, the speed of recovery and the absence of after-effects; the rarity of major mental illness as a cause is also surprising. Thus, for every 15 patients admitted in a frenzied outburst (and such patients exactly correspond to the popular idea of a raving lunatic) only one will prove, on settling down, to be suffering from mental illness and to be in need of specialist treatment.

109. Several retrospective studies of the epidemiology of mental disease in Fiji were carried out during the year and these will be the subject of a publication by the Consultant Psychiatrist at a later date. Of interest to this report, however, was a study of the fate of patients admitted to the hospital since its foundation in 1886. These are summarised in the following table:—

TABLE 2

FATE OF PATIENTS ADMITTED TO ST. GILES' HOSPITAL FROM 1886 TO 1966

Period	*Discharged within two years Per cent.*	*Died within two years Per cent.*	*Alive in hospital at two years Per cent.*
1886–1905	60	20	20
1906–1945	48	30	22
1946–1950	67	11	22
1951–1960	76	5	19
1961–1966	96	2	2

110. The period of two years was taken since it is after this period that patients are regarded as long-term cases.

111. During the earliest years shown, the hospital was very small and was, indeed, an annexe of the general hospital. Patients obviously received as high a standard of treatment as was possible at the time.

112. From 1906 to the end of the second world war, conditions in the hospital were poor, the death rate was high and the discharge rate low. In the period after the war more attention was given to the mental asylum, as it then was, with an obvious improvement in both conditions and results. In the decade from 1951 to 1960, the appointment of a dedicated and intelligent Head Attendant without any alteration in the standard of medical attention reduced the death rate to 5 per cent. in the first two years of admission and increased the early discharge rate to 76 per cent. of all patients admitted. Nevertheless the " chronic rate " remained almost unaltered.

113. Modern treatment and psychiatric methods were introduced in 1961 and this, it will be seen, has resulted in a major increase in the early discharge rate and a gratifying decrease in the proportion of admissions becoming long-stay patients.

114. In addition to improved patient care, the presence of a trained psychiatrist at St. Giles' Hospital has enabled an active staff training programme to be continued during the year. Training in mental illness was also given to post-graduate nurses and doctors in 1966.

Laboratories

115. The Central Laboratory for the Colony which is situated within the precincts of the Colonial War Memorial Hospital, is under the control of the Government Pathologist who has also the responsibility of maintaining a technical oversight of Branch Laboratories at the Tamavua, Lautoka and Labasa Hospitals.

116. The Laboratory serves as the hospital laboratory for the Colonial War Memorial Hospital and also as a Central Laboratory for the carrying out of more complicated investigations for some of the Department's units throughout the Colony; it also acts in some measure as a Central Laboratory for other territories within the South Pacific Health Service, since most of these do not have the facilities for carrying out investigations such as histological examinations.

117. The Laboratory has facilities for carrying out a wide range of investigations and there are few occasions, except for those demanding virological examination, when help from larger centres is necessary.

118. The Pathologist is responsible for most of the medico-legal work in the Colony as well as for supervising the instruction of students taking the Laboratory Technicians' Course; he is responsible also for teaching Pathology, Bacteriology and Forensic Medicine to the medical and dental students of the Fiji School of Medicine.

119. Details of the work of the three Laboratories will be found in Table XIV in the Appendix to this report.

120. As the general level of medical services available in Fiji improves, so there is an increasing need for laboratory facilities to be available at the smaller hospitals in the Colony. Those rural hospitals which have been upgraded to district hospitals have, therefore, been equipped with small laboratories. However, the amount of work required of these small units is not such as to require the services of a full-time technician. During the year, therefore, a start was made on the training of selected nurses in laboratory and X-ray techniques to fill this gap. The first two nurse-technicians qualified during the year and the scheme shows every promise of being most successful.

121. The Wellcome Virus Laboratory continued its research programme during the year.

Dental Services

122. The dental services of Fiji have always been directed towards the children of the population. As in so many other developing countries with limited resources it is not possible to provide full dental cover for all sections of the population and the policy has therefore continued of providing as much conservative treatment of children as is possible whilst limiting the treatment of adults to the relief of pain and to the provision of specialised facilities such as oral surgery. In addition complete dentures are provided at reduced cost for those edentulous patients who are unable to afford the services of private practitioners.

123. In order to carry out this policy it is necessary to provide as much of a mobile service as is possible and the Department now operates three mobile dental clinics. The largest of these is based at the main dental clinic in Suva whilst one is based in the Western Division for use by the Dental Officers at Lautoka and Ba and a similar one based in the Northern Division for use by the Dental Officer, Labasa. Services to the smaller islands of the group are provided on an *ad hoc* basis by teams in the Department's motor vessel *Vuniwai*.

124. Dental health education is regarded as of extreme importance and in order to further this scheme, talks are given at all schools which are visited by the mobile clinics. A practical method has been evolved by the development of the school toothbrushing scheme. With the co-operation of the manufacturers, large quantities of toothbrushes are purchased at the low price of 3d. each and are sold to the schools taking part in this scheme, at cost. Cabinets for these brushes are made by the Prisons Department and are likewise sold at cost to participating schools. The aim of the toothbrushing scheme is to have every child in every school in Fiji brushing his teeth daily.

125. Details of the work of the Division will be found in Tables XV and XVI.

IV—PUBLIC HEALTH

Notifiable Diseases

126. The trend of certain notifiable diseases over the last five years is given below:—

	1966	1965	1964	1963	1962
Cerebro-Spinal Meningitis ..	58*	30*	26*	4	5
Diphtheria	4	1	1	3	4
Dysentery (all types)	81	225	129	195	494
Enteric Group	5	....	....	2	5
Infantile Diarrhoea	4,477	5,669	4,748	3,215	3,347
Infective Hepatitis	502	304	293	410	191
Influenza	42,937	33,467	45,915	23,765	56,282
Measles	49	34	4,386	2,989	17
Poliomyelitis	....	....	....	....	2
Tetanus	32	28	48	48	40
Trachoma	396	314	380	808	1,415
Tuberculosis (all forms)† ..	458	516	516	529	560
Pertussis	97	189	893	1,627	2,041
Leprosy†	34	47	29	41	36
Syphilis	4	13	25	30	16
Gonorrhoea	785	714	455	445	316
Yaws	16	11	37	21	13
Dengue Fever	1	32	....	1	39

A full table of all notifiable diseases will be found at Tables XVII and XVIII in the Appendix.

* The figure for 1964, 1965 and 1966 includes all types of meningitis except tuberculosis.
† These figures are obtained from the Central Registry and not from notification records as those from the Registry are considered to be more accurate.

127. *Intestinal Diseases*—Five cases of typhoid fever occurred during the year which was disappointing after having had two years of freedom from the disease. With the exception of a father and daughter on one of the outer islands, all were isolated cases and there was no spread of infection. In no case was a definite source of infection incriminated but in most of them shellfish was considered to be the most likely cause.

128. The incidence of infantile diarrhoea fell during the year. An enquiry was conducted into the type and severity of this condition and it was found that some 90 per cent. of the cases were mild, showed no evidence of dehydration and recovered quickly. The age distribution indicates that they are probably due to maternal ignorance in feeding babies as they seem to occur most commonly at the weaning age. About seven per cent. are moderate in that they show dehydration without the need for drip therapy and only three per cent. are severe.

129. There was also a considerable fall in the incidence of dysentery the reason for which is not understood: the increase in the number of cases of infective hepatitis would seem to preclude an improvement in standards of hygiene as the causative factor.

130. *Diphtheria*—The four cases of diphtheria, two of them fatal, all occurred among children who had not been immunised. In spite of constant publicity and health education there are still some parents who neglect to have their children protected. The Department continues its endeavours to ensure that all infants are inoculated against poliomyelitis, diphtheria, tetanus and pertussis and protected against tuberculosis by B.C.G.

131. *Tetanus*—The increase in the number of cases of tetanus though slight is disappointing. Of the 32 cases, 16 were of tetanus neonatorum and of these 11 died. Of the 16 cases of true tetanus 9 died. Fijians accounted for 9 of the tetanus patients and for 12 of those suffering from tetanus neonatorum. The Department has now added the routine immunisation of pregnant women to its preventive measures. In addition certain traditional birth attendants are given simple courses of instruction in the hygienic management of accouchements. In 1967 the Department intends to introduce a system of block immunisation whereby everybody living within a mile of every rural case will be given a course of tetanus toxoid on the grounds that they too are exposed to the same spore-infected soil as was the patient.

132. *Venereal Diseases*—The incidence of syphilis has continued inexplicably to fall and 1966 saw the lowest number of cases on record for many years. Gonorrhoea, on the other hand has inexorably increased and, with 784 cases, 1966 was the worst year on record. The Department is attempting to combat gonorrhoea by intensified contact tracing, by much increased health education and by making treatment more easily available. However, as was stated in the annual report for 1965, gonorrhoea is a disease of the community as well as the individual and its control must be undertaken on a broad front. In this connection there is an almost complete dearth of social workers in Fiji.

133. *Whooping Cough*—The decline in the incidence of whooping cough continued and the number of cases reported in 1966, 97, marks a new perigee. Pertussis is, of course, an epidemic disease and a rise in the incidence can confidently be expected. Nevertheless, the number of cases has never fallen so low before now and the fact that the decline has continued unbroken since 1962 must give rise to consideration that the improvement is due to the immunisation campaign which commenced in 1963.

134. *Dengue*—One case of dengue fever was reported on clinical grounds. In fact this was almost certainly not dengue fever. Examination of blood samples from widely spread areas of the Colony has revealed that there has been very little arbovirus activity over the last 15 years although, prior to this time, many people had been infected with a disease which appears to have been dengue, Types I and II.

135. *Influenza*—The group of minor pyrexial illnesses which are notified as influenza rose again in 1966 and showed the familiar pattern of a constant quantity of background infection upon which was superimposed an epidemic lasting for about three months. It had been thought that these illnesses might have been spread, at least in part, by mosquitoes but the investigation has shown that this is not so.

136. *Poliomyelitis*—It is gratifying to be able to record that, for the fourth year in succession, no case of poliomyelitis was reported.

137. *Tuberculosis* and *Leprosy* are discussed elsewhere in this report.

138. *Hydatid Disease*—One case of hydatid disease was reported during the year. The condition, so far as can be ascertained, has never previously occurred in Fiji and the case had some unusual features.

139. The patient was a middle-aged Indian female who presented with an unexplained abdominal swelling. At laparotomy the peritoneal cavity was found to be full of cysts. These were confirmed by laboratory examination as hydatid cysts and many of them contained daughter cysts. The patient died some six months after her first admission.

140. The lady lived in a rural area near Nadi. She had never been outside Fiji in her life. There are no sheep in the neighbourhood and never have been, the nearest flock being some seventeen miles away from Nadi. She was presumably infected by a dog which harboured Echinococcus granulosis but where the dog picked up the parasite must remain a mystery. However dogs are admitted to the Colony from time to time from overseas and particularly from New Zealand so it is possible that the parasite may exist in Fiji although at a low level.

Family Planning

141. The need for family planning, which has been recognised by the Medical Department for a number of years, was accepted as part of Government's policy in connection with social services in 1963. In the same year the Family Planning Association of Fiji was also founded.

142. The arguments in favour of a national policy of family planning are widely known. In Fiji, however, two factors were outstanding in leading to the introduction of such a policy. The first factor was that in a country where the annual *per capita* income, although higher than in many parts of the world, is in the region of £100 per annum and in which there is taking place a rapid change from a traditional agricultural way of life to a more organised society, a large family consisting of many children born at annual intervals places an undue burden on the wage-earner and is an unfair strain on the health of the mother. The second factor which influenced Government was that in a small developing country an annual increase in population of the neighbourhood of four per cent. (which obtained a few years ago) caused such a large proportion of the population to be dependent on the wage-earning minority that the economy, no matter how rapidly developed, could not keep pace with consumption and the standard of living must perforce decline in spite of all efforts to improve it.

143. The Family Planning Association and the Medical Department work together in harmony in endeavouring to increase the amount of family planning which is undertaken in Fiji. The Association's task is the provision of information on as widespread a scale as is possible whilst the Medical Department is responsible for making the facilities available. Advice on family planning and supplies of material are obtainable in all Government Hospitals and health centres and in all Health Sisters' clinics and at most district nursing stations.

144. Advice is available regarding all methods of family planning and the patient is given a free choice of method. The dictates of conscience of those who object to mechanical methods are carefully respected. In spite of the increase in the use of the intrauterine contraceptive device monthly sales of contraceptive pills and condoms have shown a steady rise. By the end of 1966 it was calculated that over 2,000 women were using " the pill " and about 1,300 condoms were being sold monthly from Government sources alone.

145. Attendances at Family Planning Clinics were slightly lower than in 1965, the figures being as follows:—

1966	21,489
1965	24,435
1964	18,084

At least some of this decrease, however, was due to the fewer attendances required of women who were using the loop and to the growing tendency of patients to purchase several monthly courses pills at the one attendance. In this connection it is worth stating that it was found possible during the year to reduce the cost of the two brands of contraceptive pills on sale to two shillings for a month's supply.

146. During 1966 the Lippes Loop continued to increase in popularity. This method of contraception has several advantages in a developing country such as Fiji. It is cheap and easy of insertion and there is no cost whatever to the patient as all loops are inserted free of charge. The patient is thus relieved of the burden, not only of paying continuously for materials, but also of the necessity of having to travel from time to time to nearest medical station to obtain them. This is a matter of some importance in a country in which in many places communications are still not easy. Above all, the loop only requires one act of motivation on the part of the patient instead of a series of repeated ones.

147. The increasing number of loops fitted is shown by the figures for the last three years which were as follows:—

1964	800
1965	2,579
1966	3,510
Total	6,889

However, it is not true to assume that, by the end of 1966, 6,889 women were protected by loops. Figures are only available for 1966, but in that year 656 loops were extruded or removed either because of side effects (usually excessive monthly periods) or at the patient's request. Some of these loops would, of course, have been inserted in previous years and it is impossible to calculate accurately what proportion of the total number inserted are still being worn. However, it would probably not be very wide of the mark were the total shown reduced to about 6,000.

148. It has been said that the most serious drawback to the use of the loop is its inefficiency as a contraceptive. During 1966, 59 pregnancies were reported among women who were using the loop. If the latter number is accepted, as mentioned above, as 6,000, this gives a rate of one per cent. or thereabouts, which, although perhaps disappointing to the unfortunate 59, is a lower failure rate than has been found elsewhere.

149. Other forms of contraceptive devices such as sponges and foaming tablets have never proved to be popular in Fiji and, although they are now given away free, are finding a poor reception. In all about 20 such devices are issued monthly.

150. During 1966, 576 women were sterilised for medical reasons or at their own request.

151. It is, of course, impossible accurately to calculate the number of women who are protected by one or another contraceptive technique but a rough estimate based on sales, attendances, loop insertions and information provided by private pharmacists, would seem to indicate that about 11,000 women are now practising family planning. The number of women in the child-bearing age group is now in the neighbourhood of 102,500 so that 9 per cent. very roughly are planning their families.

152. That this is sufficient to produce results on a national level is revealed by the continuing fall in the crude birth rate which has now reached 34·87 per thousand. The continued drop over the last five years is shown in Table 3.

TABLE 3

CRUDE BIRTH RATES, 1963 TO 1966

Year	*Fijian*	*Indian*	*Total*
1966	36·93	34·64	34·87
1965	36·19	37·29	35·89
1964	37·40	39·84	37·82
1963	37·80	40·20	38·02
1962	37·84	42·64	39·55

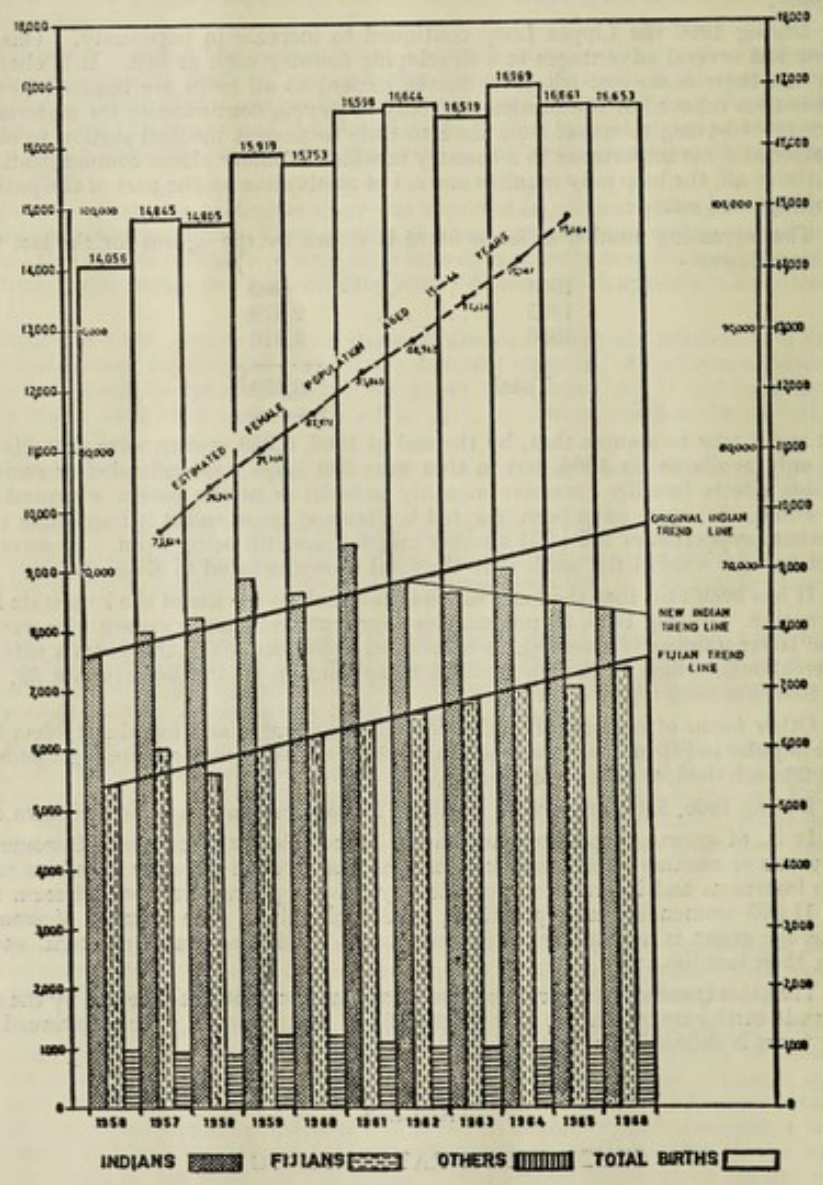
153. It will be noted that the drop in the birth rate is almost entirely due to the Indian element of the population. Indians are, it would seem, more and more convinced of the wisdom of having small, healthy and well-educated families but the same cannot be said as yet of the Fijians. This is confirmed by Diagram I (page 14) which shows the total births over the last eleven years.

154. Study of this diagram shows that the total births which were rising steadily from 1956 to 1961 have subsequently been held at a steady total in the face of a rapidly growing population of females in the child-bearing age group. It also shows clearly that the Indian births have rapidly decreased since 1961, to such an extent indeed that an entirely new trend is discernible. The Fijian birth-rate on the other hand has risen slightly but it is hoped that continuing work in this sector will shortly produce results.

155. It is apparent, therefore, that, although much has been achieved by the Family Planning Association and the Medical Department over the last few years, a great deal remains to be done if the level of prosperity of Fiji is to be maintained let alone raised and both organisations intend to redouble their efforts in 1967.

DIAGRAM I

BIRTHS RECORDED DURING YEARS 1956-1966



Tuberculosis

156. Tuberculosis continues to be the major public health problem in Fiji and the biggest single cause of serious morbidity and loss of earning power.

157. Before discussing the epidemiology of tuberculosis in Fiji, it is necessary to explain the criteria by which a patient is judged to be suffering from the disease. One absolute criterion of tuberculosis is the demonstration of virulent Mycobacteria tuberculosis in either sputum or histological sections and this is the only evidence used in many countries. This figure, therefore, is a useful one for comparison purposes with other national statistics and is quoted separately below.

158. In the other and, now in Fiji, larger, group of patients an absolute diagnosis cannot be made. In these a clinical diagnosis of tuberculosis is reached by inductive methods. The question arises of at what stage such cases should be registered as definitely suffering from the disease. An extreme criterion, for instance, would be to register everyone with a naturally occurring positive tuberculin reaction but this would clearly be meaningless.

159. The criteria adopted in Fiji for this group of patients have been crystallised as follows:—

(i) The patient must have a positive tuberculin test;
(ii) There must be a demonstrable lesion in some part of the body the appearance of which, either on direct or radiographic inspection, is characteristic of a tuberculous lesion;
(iii) There must be a necessity to subject the patient to treatment.

160. As diagnostic and therapeutic facilities improve the interpretation of even these criteria must vary. For instance, the decision as to whether a patient should be treated is a personal one by the Physician and could be influenced by such factors as the availability of drugs, the distance from hospital of the patient's home and the susceptibility to tuberculosis of the patient's race. For these reasons, although the total number of cases registered is considered, it is felt that the number of bacteriological cases found in any year is a more accurate index of the incidence of the disease.

161. The year 1966 may prove to have been a watershed in the epidemiological history of tuberculosis in Fiji. An intensive campaign was mounted during the year to control the disease and this campaign is described below. In spite, however, of this all-out endeavour to discover new cases, only 458 patients were registered. This has brought the rate per thousand of the population to below one for the first time since accurate records were kept. Of these 171 or only 37·3 per cent. had positive sputum.

162. Table 4 shows the trend over the last five years. The total rate in 1955 was 2·09 per thousand. By 1960 it had fallen to 1·62 per thousand. The division into two groups as shown in the Table is only accurate over the last three years since improved methods of culture and microscopy have only become available in the Divisional Centres within this period.

TABLE 4

INCIDENCE OF TUBERCULOSIS

Year	Population on 31st December, 1966	New Cases Registered	Rate per 1,000	No. bact. positive	Rate per 1,000
1966 ..	483,247	458	0·95	171	0·35
1965 ..	469,934	516	1·10	199	0·42
1964 ..	456,390	516	1·13	224	0·49
1963 ..	441,301	529	1·19	125	0·34
1962 ..	427,851	564	1·31	171	0·40

163. It can be seen therefore that, not only is the total rate per thousand steadily diminishing but that the rate per thousand of bacteriologically positive cases is also dropping. As already stated the rates of the latter shown for 1963 and 1962 are not likely to be accurate. This indicates that not only is the disease decreasing in the community but that cases are being discovered earlier and that there are fewer undetected infectious patients in the population. All this must give rise to optimism.

164. Table 5 shows the racial pattern of tuberculosis in Fiji.

TABLE 5

INCIDENCE OF TUBERCULOSIS IN 1966 BY RACE

Race	Estimated population on 31/12/66	Total Cases	Rate per 1,000 of population	Bacteriologically positive Cases	Rate per 1,000 of population	Percentage of bact. positive
Fijian	200,934	349	1·74	128	0·64	36·70
Indian	242,224	65	0·27	25	0·10	38·50
European	10,685	1	....	1	....	100·00
Part-European ..	10,194	5	0·01	2	....	40·00
Chinese	5,605	9	1·61	3	0·5	33·33
Rotuman	6,023	3	0·9	..	....	....
Others	7,582	26	0·4	12	0·16	46·20

165. It will be noted that tuberculosis is still predominantly a disease of Fijians although the rate is dropping among them too. In 1964 it was 2·1 per thousand and, in 1965, 1·96 per thousand. The " Sputum positive " rate has also dropped slightly although the percentage of the total in this group has risen from 35·8 per cent. to 36·7 per cent. The rate among Indians has also dropped, the figure for 1965 being 0·35 per thousand and the percentage of sputum positive cases has shown a marked reduction from the 54·2 per cent. recorded last year. The figures for the other racial groups are too small to permit any deductions to be drawn from them and the group shown as " other " contains polynesian and melanesian immigrants and students who are not properly " Fiji " cases at all.

166. Table 6 shows the same figures as applied to the various age groups.

TABLE 6

INCIDENCE OF TUBERCULOSIS IN 1966 BY AGE

Age Group	Estimated population on 31/12/66	Total Cases	Rate per 1,000 of population	Bacteriologically positive cases	Rate per 1,000 of population	Percentage of bact. positive cases
0– 4 years ..	80,544	29	0·36	5	0·06	17·24
5–14 ,, ...	130,230	38	0·29	9	0·07	23·68
15–24 ,, ...	94,864	100	1·05	38	0·40	38·00
25–34 ,, ...	66,503	93	1·39	33	0·50	35·48
35–44 ,, ...	46 007	74	1·61	27	0·59	36·49
45–59 ,, ...	41 086	78	1·89	36	0·88	46·15
60+ ,, ...	24,013	46	1·90	23	0·96	50·00
Total	483,247	458	0·95	171	0·35	37·3

167. The Department's endeavours to provide B.C.G. immunisation had been directed until 1966 almost entirely at school and pre-school children and the success which has attended these measures is shown by the much lower incidence of the disease in these two age groups. This is confirmed by the fact that the reduction in tuberculosis among children which was mentioned in 1965 has continued in 1966, the rates having dropped from 0·42 per 1,000 in the 0-4 year group and 0·37 in the 5–14 age group. Indeed, the incidence has fallen in every age group though it is still considered too high in those who have reached adolescence and adult life.

168. From the foregoing it will be evident that it is among the adult Fijian population that the reservoir of tuberculosis still lies, and it was for this reason that, when the Department organised its drive in 1966 to get the disease under control, it turned its attention first to this section of the population. In addition, it was felt that the school leavers should be closely observed as it is the decade after leaving school which is now the most dangerous period.

169. An endeavour was made, accordingly, to Mantoux test every school child regardless of race and every adult Fijian using PPD RT 23 with Tween 80. A pilot trial indicated that 2 T.U. was the most suitable dose for Fiji conditions and an analysis of the first 30,000 tests revealed that the breakpoint appeared to be about 7 mm. of induration of the resulting reaction. Everybody, therefore, who had a reaction of 7 mm. or less was given B.C.G. and everyone with a reaction of 10 mm. or more was given a chest X-ray. Those with reactions of 8 or 9 mm. were considered to have sufficient resistance but not to be likely to be harbouring the disease and were disregarded.

170. The population to be covered was estimated to be in the neighbourhood of 250,000. By the end of the year 158,971 persons had been tested. There was an inevitable slight delay in processing the resultant flood of forms and the data were therefore available for only 114,717 of these. Out of this number, 28,511 were found to require an X-ray, the remaining 86,206 either having had B.C.G. or not requiring any action. Of the X-rays required, 14,724 had been performed and 135 cases of tuberculosis had been discovered.

171. It is of interest to record that, in the outer smaller islands, the tuberculosis campaign was conducted by a medical team based on the Department's vessel, m.v. *Vuniwai*, which is fitted with X-ray and laboratory facilities. This team tested 13,997 persons and X-rayed 6,410 of them, discovering 55 cases of the disease.

172. The population of these smaller and more isolated islands is almost entirely Fijian and was a virgin group so far as surveys to detect tuberculosis were concerned. The commissioning of the m.v. *Vuniwai* has permitted us to correct this situation and it is of interest to record that a sample survey of the forms submitted by the campaign team has revealed a tuberculosis rate of 5 per 1,000 of the adult Fijian population. This rate would presumably be fairly universal throughout Fiji had it not been for the efforts of the Medical Department in the past. A similar sample of forms from the main island showed that the rate among adult Fijians on Viti Levu was 3 per 1,000 indicating that those efforts have not been without effect. This is particularly so in view of the fact that Viti Levu contains most of the urban communities and tuberculosis is traditionally more common in towns.

173. A further point of interest and one which reveals the changing pattern of the disease in Fiji emerges from a study of the places where cases were first detected. This is born out by Table 7.

TABLE 7

SOURCES OF CASES OF TUBERCULOSIS IN 1965 AND 1966

Source	Total Cases 1965	Percentage of Total 1965	Total Cases 1966	Percentage of Total 1966
Rural Hospitals and Health Centres ..	239	46·3 } 57·0%	202	44·1 } 70·1%
Mobile X-ray Units	55	10·7 }	119	26·0 }
Colonial War Memorial Hospital ..	103	20·0	52	11·4
Other Divisional Hospitals	67	13·0	38	8·0
Tamavua Hospital	28	5·4	20	4·6
Private Practitioners	24	4·6	27	5·9
Total	516	.....	458	.....

174. It can be generally accepted that the first two sources shown on the table are mainly rural and that the remainder are mainly urban. There is some overlap in each direction but this is small. It can therefore be seen that there has been a considerable rise in the proportion of cases discovered outside the main towns and that this is mainly accounted for by the increased use of mobile X-ray units and, indeed, almost entirely by that mounted in m.v. *Vuniwai*. That the reduction in the towns is a true one and not merely due to a shifting of attention to the outer islands is proved by the drop in cases discovered at the Colonial War Memorial Hospital. Every patient admitted to this busy general hospital for whatever cause is given a routine chest X-ray. It therefore provides a true cross-section of the population of Suva and the number of admissions was no less in 1966 than it had been in 1965. The screen was therefore unchanged but only half as many cases of tuberculosis were found.

175. In summary, therefore, it would appear that a breakthrough has occurred at last in the control of tuberculosis and that, although there may be a temporary increase for the next year or two in the number of patients registered as a consequence of the current campaign, it may be confidently assumed that we are now finally on the downward curve of the epidemic.

Leprosy

176. The Fiji Leprosy Hospital was established 55 years ago on the island of Makogai and is run in conjunction with St. Elizabeth's Home in Suva which acts as a staging post for patients proceeding to and from the island and as a centre for the accommodation of discharged patients requiring rehabilitation or short-term treatment for various reasons.

177. A period of treatment in hospital is still customary in Fiji. Non-infectious cases are normally admitted to hospital for three months for stabilisation of therapy and for instruction in the nature of their disease and in the need for continuing their treatment after conditional discharge.

178. By the powers invested in him under section 20 of the Leper Ordinance, the Director of Medical Services may permit a patient to have treatment at home without having first to be admitted to hospital. This dispensation is only applied at present to non-infectious cases who are sufficiently intelligent and educated to abide by any regulations laid down for them and who can be trusted to take their tablets and attend regularly for reviews.

179. School children suffering from non-infectious leprosy are not usually admitted to hospital unless their home conditions are such that this appears imperative. They are removed from school and isolated at home only for the minimum period necessary to stabilise them on treatment. Infectious cases of leprosy are normally admitted to the Fiji Leprosy Hospital, except in very rare circumstances when the home conditions permit really adequate isolation, the patient is highly intelligent and co-operative and the bacterial count is low.

180. Patients who are admitted to hospital may be given conditional discharge when their skin scrapings reach 2+ or less on the Ridley scale and may then continue their treatment at home. This type of discharge is so named because it is conditional on patients being able to provide minimum standards of segregation in their homes and agreeing not to engage in certain occupations. Patients are eligible for absolute discharge either from hospital or from previous conditional discharge when they have been inactive and bacteriologically negative for six months. They are then free from all restrictions but are maintained on drugs and followed up for another five years.

181. The Fiji Leprosy Hospital is staffed by a Medical Superintendent and the Missionary Sisters of the Society of Mary and the Sisters of Our Lady of Nazareth. Sisters of the first of these Orders also staff St. Elizabeth's Home.

182. During 1966, thirty-four cases of leprosy were registered. Five of these cases were of tuberculoid leprosy so mild as not to require admission to Makogai and another eight only needed to be admitted for a few months to be stabilised on treatment and to be given some health education about their disease. There were also five re-admissions of patients whose condition had relapsed. Table XXIV of the Appendix shows the breakdown of the patient strength during the year.

183. Once again the number of patients discharged from the Fiji Leprosy Hospital was greater than the number admitted and the number of in-patients fell from 166 at the beginning of the year to 137 at the end. During the year 56 patients were discharged and there were seven deaths. Ten of those discharged had only been in hospital for a short period of health education and eleven were discharged to continue their treatment under domiciliary care. The remaining 35 patients left hospital with their disease arrested if not cured.

184. One of the concomitants of the running down of Makogai is the loss of its international character. The last Cook Islander left during the year and now only three Tongan patients and one Euronesian from New Zealand remain to bear witness to the fact that the hospital used to be the great treatment centre for leprosy throughout the South Pacific. The hospital facilities are now absurdly too large for the handful of patients that remain but, owing to financial difficulties, commencement of a new smaller and more modern hospital at Suva was held up during the year. It is now anticipated that construction will commence in 1967.

185. Table XXV of the Appendix shows the numbers of patients of each nationality which have been treated at Makogai since its inception.

186. Auxiliary treatment plays a large part in the management of leprosy and in this connection the physiotherapy and occupational therapy units of both Makogai and St. Elizabeth's Home were kept busy during the year. In addition several patients from both institutions underwent reconstructive surgery with excellent results.

187. Diamino-diphenyl-sulphone (DDS), diphenyl-thiourea (DDT; Ciba 1906) and thiacetazone have remained the drugs of choice throughout the year. On these forms of therepy 85 patients showed improvement and 30 remained stationary, the remainder being either new admissions or burnt out cases.

188. Table XXVI shows the racial and geographical breakdown of admissions during the year. As usual, Fijians predominate. The Male/Female ratio was 2·4:1 and the number from each Province is roughly in proportion to the population. A pleasing aspect of the epidemiology of leprosy in Fiji is the ever-decreasing number of children being diagnosed, there being only one child admitted to hospital in 1966.

Vital Statistics

189. Details of vital statistics, supplied by the Registrar-General are given in Tables XIX to XXIII of the Appendix.

190. There was another fall in the crude birth rate from 35·89 per thousand in 1965 to 34·46 per thousand (Fijians 36·42; Indians 34·23).

191. The crude death rate was almost stationary at 5·14 per thousand (Fijians 4·97; Indians 5·34) as compared with the 1965 rate of 5·15 per thousand. The overall infant mortality rate was 27·92 per thousand live births; the rate given for Fijians being 16·40 and that for Indians being 39·68. The Fijian rate shows a further fall from 1965 (when the figure was 19·2), but no satisfactory explanation for the very considerable fall from 1964 to 1965 has yet been forthcoming; in the absence of such an explanation the present figures should be treated with some reserve.

Health Education

192. The health education section of the Department is a very small one, but is nevertheless active and had a fruitful year in 1966. In conformity with the aim of instilling the principles and philosophy of health education into all members of the staff, the Health Education Officer devotes much of his time and energy to the teaching of the subject to students at the Fiji School of Medicine and the Central Nursing School. This teaching, comprising theoretical and practical work is designed to further the aim of making every health worker a health educator.

193. In addition, assistance was given in the training of students at the Teachers' Training College and, in association with the staff of the Fiji School of Medicine, the Health Education Officer revised the structure and content of the health science curriculum, for use in schools, to bring it more into line with modern concepts.

194. The Health Education Officer was also concerned in the planning and implementation of the various mass campaigns carried out by the Department, particularly those dealing with immunisation, tuberculosis, and family planning; much of the credit for the high acceptability of these campaigns by the public is due to the careful preparation and groundwork of the health education section.

195. As in the past, the section played a major part in staging the Department's exhibition at the Fiji Show. The theme in 1966 was Tuberculosis Control, and the exhibition was a popular item at the show. It afforded an opportunity to screen the first film on a health topic made in Fiji. This, film produced by the Public Relations Office Film Unit and the health education section, is entitled " Help Yourself to Health " and deals with the prevention of tuberculosis. It has been deservedly popular.

196. Two further courses for community leaders were held during the year; one in Beqa and the other in the Yasawas. On each occasion the Health Education Officer was assisted by members of the Department and by staff from other Government Departments. These courses, which are always well attended, go far to improving the participants understanding of the simpler health problems in their villages.

Environmental Sanitation

197. The problems of environmental sanitation in Fiji are being tackled in three ways and by three agencies. The various local authorities provide the detailed knowledge and special enthusiasm of the man on the spot. The Public Works Department provides expertise and finance for the provision and installation of water supplies and sewerage systems and for their maintenance. The Medical Department supplies the advice of the Medical Officers of Health and area Medical Officers and provides Health Inspectorate staff. It also contributes an overall supervision of matters of public health and encourages, advises or prosecutes where and when necessary.

198. These activities are co-ordinated and controlled by the Central Board of Health of which the Director of Medical Services is Chairman *ex officio*. The Director of Public Works and the Director of Lands are also official members and the Chief Health Inspector is the Secretary of the Board. " Unofficial " members are nominated by His Excellency the Governor from the general public and these unofficial members now constitute a majority. The Board advises on matters having to do with environmental hygiene and it holds executive powers in those areas where there is no local authority. It can also exercise these powers should a Local Authority default in its duty. It peruses the minutes of Local Authorities and advises them on procedure and it is empowered to consider appeals against the ruling of any Authority on matters concerning public health and building.

199. There are, in all, 25 Local Authorities. Of these, 16 are concerned with rural areas whilst the remainder are responsible for the administration of the City of Suva, the town of Lautoka, Nadi International Airport, and the townships of Ba, Labasa, Levuka, Nadi, Nausori and Sigatoka. As already implied, that part of the staff of these Local Authorities which deals with environmental sanitation is employed by the Medical Department and seconded for duties with the Authorities; the exceptions to this rule are the Suva City Council and the Lautoka Town Council both of which employ their own health inspectorate.

200. Cutting across this administrative organisation are the various Fijian Affairs Regulations. A Fijian Affairs Board is empowered to make regulations applicable only to the indigenous Fijian population and which are administered by separate Fijian Courts. These regulations, with

the exception now of that relating to the control of communicable diseases, provide the only health legislation which can be enforced in Fijian villages as these are specifically excluded from the application of the Public Health Ordinance or any regulations made thereunder, subject to the exception mentioned above.

201. The regulations of the Fijian Affairs Board are supervised by fourteen Provincial Councils and apply to the hygiene of Fijian villages, standards of house buildings, parental care of children, the care of pregnant women, the registration of births and deaths, and the control of animals within the village areas. They used also to cover the control of communicable diseases but the Public Health Ordinance was amended in 1966 to enable the Governor, after consulting the Fijian Affairs Board, to apply any part or provision of the Ordinance to Fijian villages. Part six of the Ordinance relating to the control of infectious or communicable diseases was so applied during the year and this has now, therefore, superseded the old Fijian Affairs Regulations on the subject. The result has been to bring the public health legislation concerning Fijian villages into line with that for the country at large and to permit Health Inspectors to enter into and give advice in these communities. Previously only medical officers had had this right.

202. The problems of environmental sanitation in Fiji are still of a magnitude which must give rise to some concern. Whilst there are a number of aspects to these difficulties, the main ones are:—

(*a*) a lack of proper sewerage systems in the growing urban communities,

(*b*) a serious shortage of housing for the lower wage-earning section of the populations of towns,

(*c*) a lack of general village planning,

(*d*) the increasing difficulty of building good traditional houses and the lack of a low-cost substitute for these,

(*e*) the need to supply water supplies in rural areas of an acceptable standard and price,

(*f*) the need for proper disposal of excreta and refuse in village communities.

203. It has now been possible to post members of the Health Inspectorate to most of the provinces in the Colony and they are in a position to act as technical advisers on many aspects of environmental sanitation.

204. Of all the towns and townships in the Colony, only Suva has a reticulated sewerage system and even this only serves a small part of the City. All other urban communities rely on septic tanks, water-seal latrines and even, in places, pit privies. As the density of population rises the septic tank ceases to be an adequate means of sewage treatment since the space available for the underground disposal of the effluent becomes too restricted. Furthermore, in many places, the type of soil militates against its effectiveness. Most of Suva, for instance, is built on land which consists of a few inches of soil lying on top of an impervious layer of soapstone. The Medical Department is increasingly perturbed at the hazard to health that is involved in this paucity of proper sanitation and Government has been made aware of this fact. Action is, indeed, commencing to be seen. The passage of the Sewerage Ordinance in 1966 marked the first step and plans were well advanced at the end of the year for work to start on a sewerage system for Lautoka. But much remains to be done. The towns are steadily increasing in size and time is running out.

205. In rural areas the problem is being solved by the use of water-seal latrines and the campaign to instal as many of these as possible was continued during the year. Assistant Mosquito Inspectors have been trained in the construction of these latrines and posted to rural areas to assist villages to manufacture and instal them. The necessary moulds are available on free loan at all Health Offices. The success of this plan has been variable in different parts of the Colony and the efforts of the Department in this connection were hampered by a second successive year of drought which made water for flushing these latrines difficult to obtain in many places. Nevertheless some 3,680 water-seal latrines were put in during 1966.

206. That these water-seal latrines are effective in reducing nuisances due to improper disposal of excreta has been proven many times but further evidence of this was obtained in 1966 on the Island of Beqa. On this island all the villages have adopted these latrines and the old pit privies have been filled in. The people reported during the year that the most striking result was the almost complete disappearance of the flies that had plagued the island from time immemorial. Most of the islands of Lau have also now switched over to water-seal latrines. The people, once they accept the necessity of the chore of having to keep a supply of water handy, soon become enthusiastic and commonly state that they would never return to the old system. Since there is a complete lack of odour, water-seal latrines can be placed close to houses and do not have to be situated in the surrounding bush as do pit latrines; as a consequence of this people use them, even the children and even at night, and there is a tremendous reduction in indiscriminate defaecation.

207. The need for low cost housing is one which is felt at both village level and in the suburban areas of the towns, especially in and around Suva and Lautoka both of which act as magnets for an increasing number of people from other parts of the Colony. These folks are faced with three choices; they can obtain accommodation (often of unsuitable type) at high rental in the towns, they can build houses of an acceptable standard which they may not be able to afford to do even if they can obtain the land or they can erect a shanty without authority on small pieces of land often occupied without proper tenure. The Housing Authority is tackling this problem with vigour and is experimenting with several types of low cost dwellings. A Committee which was established in 1965 continued its meetings throughout 1966 under the chairmanship of the Assistant Director of Medical Services to endeavour to draw up new Small Buildings Regulations which would reduce requirements to a minimum compatible with health and safety in order to make it easier and cheaper to erect decent housing. The task has proved more difficult than was originally envisaged and the work was still proceeding at the end of the year.

208. In rural areas the problem is slightly different. The traditional Fijian house or *bure* is a reasonably satisfactory home if it is well built. However, as more land is developed and put under the plough, the supply of traditional building materials is dwindling. As the elderly craftsmen die off they are not being replaced since the young men drift to the towns or engage in more remunerative occupations and the old skills are being lost. As a result the *bure* is becoming, in many parts, an expensive dwelling and it is hard to get a good one built. It is therefore becoming important to find a cheap and satisfactory substitute and the Medical Department turned its attention to this problem in 1965.

209. In that year a Committee was established by the Department which consisted of architects from Government and the Housing Authority, an engineer, an expert in timber, a businessman interest in concrete, a clergyman with experience in low cost housing, the Health Instructor of the Fiji School of Medicine and the Chief Health Inspector. This Committee was also under the chairmanship of the Assistant Director of Medical Services. By the end of 1966 the Committee had designed and erected a prototype house which was considered adequate for a family with four children and which cost less than £200 for materials. Detailed plans and drawings were being prepared and it was intended to produce a simple booklet to enable the ordinary man to put it up for himself. If this house proves popular it should go a long way towards solving the problem of low-cost housing in rural areas.

210. Water is, of course, the very basis of environmental sanitation. Urban water supplies in Fiji are, on the whole, excellent. They are modern treatment plants and provide a more than adequate supply of pure water except after an unusually prolonged drought when it sometimes becomes necessary to reduce the pressure. Indeed, the drought of 1966 was only the second time that this has ever had to be done in Suva.

211. For some years, however, the Medical Department has been dissatisfied with the poor standard of rural water supplies and at the slowness with which new village supplies were being installed. At no time was the Government's full annual allocation of money being consumed and only five or six villages had water supplies put in during any one year. At that time, Government bore one-third of the cost of materials and the villages were required to provide the remaining two thirds.

212. Accordingly, in 1964, an agreement was reached between the offices of the Members concerned that the Medical Department would take over the responsibility for co-ordinating and encouraging the installation of rural water supplies and that the Public Works Department would do the actual work. This system has worked well and relations between the relevant officers in the two Departments are excellent.

213. At the same time an approach was made to the United Nations Children's Fund (UNICEF) for financial assistance in the project and an agreement was signed in July, 1965, whereby that organisation paid $5,000 a year for three years. This enabled Government to reduce the villages' share of the cost of materials to one-third of the total.

214. This assistance proved to be the catalyst that was needed to get the whole project moving and so successful did the scheme prove that an addendum to the UNICEF agreement was signed in May, 1966, whereby the organisation agreed to supply the whole $15,000 by the end of that year. For the first time Government's entire commitment was utilised and 17 water supplies were installed in 1966.

215. UNICEF do not agree, for obvious reasons, to finance projects that will continue indefinitely. It was, however, felt that for their assistance to cease at the end of 1966 would put the whole project once more in jeopardy and so yet another approach was made for further aid on a diminishing basis over the next few years. This was accepted by the organisation and a second addendum was signed in January, 1967. Under this, UNICEF agreed to provide a further $32,500 during 1967, 1968 and 1969 with a firm commitment of $15,000 in 1967. By 1970, it is hoped that Government will have absorbed UNICEF's share of the cost and that, thereafter, it will pay two-thirds of the cost of materials leaving the villages still to find only one-third thereof.

216. The position at the end of the year was that schemes had been prepared for 58 villages since the present system started. Three of these had gone ahead and completed the work under the old terms before the first UNICEF aid arrived; 30 of the villages had collected their share of the cost; 18 of these had had their supplies installed and work was due to start on another eight leaving seven still to be done when transport becomes available. The other 49 are still collecting funds.

217. There are, however, some 250 villages on the operations list. Of these 58 are enumerated in the preceding paragraph and the remainder either do not qualify for UNICEF aid or are still collecting funds.

218. The villages which do not qualify for UNICEF aid are those which require roof catchment schemes. UNICEF contributes materials and not money and, in this instance, the materials consist of pipes. The cost of a roof catchment scheme consists almost entirely of the erection of a cement water tank and very few pipes are required of the type provided by UNICEF. Hence these villages have to continue under the old arrangement. Hitherto, 30 such schemes have been installed and work was due shortly to start on another three.

219. Details of the work performed by the Health Inspectorate of the Medical Department are given in Table XXVIII.

Quarantine

220. There are three ports of entry into Fiji, namely Suva, Lautoka and Levuka. There are also three airports of entry, to wit Nadi, Nausori and Laucala Bay in Suva. However, Nausori is an airport of entry only for aeroplanes arriving from non-malarious areas and Laucala Bay, though registered as an airport of entry for aircraft coming from any area, is for seaplanes only. With the exception of military aircraft, no planes now enter the Colony through Laucala Bay.

221. International quarantine activities at all ports of entry are supervised by the local Divisional Medical Officer who is a senior officer usually with a post-graduate diploma in public health. These officers are, in turn, under the control of the Director of Medical Services through the Assistant Director of Medical Services (Health). Nadi International Airport has, in addition, a full time Medical Officer stationed on the premises.

222. These Medical Officers, who are statutory Medical Officers of Health, are assisted by Health Inspectors who hold diplomas of the Royal Society for the Promotion of Health and also by several Assistant Health Inspectors who hold certificates granted by the Fiji School of Medicine.

223. No port or airport is more than fifteen miles from a major hospital. Isolation of infected persons would therefore be carried out in the nearest hospital as would any confirmation of the diagnosis that might be necessary by laboratory methods. In the event of a major catastrophe such as an outbreak of a quarantinable disease on a ship, a quarantine station is maintained on Nukulau Island off Suva.

224. It is many years since smallpox was last seen in Fiji and none of the other pestilential or quarantinable diseases has ever been reported. Smallpox vaccination is not compulsory but parents are encouraged to have their children vaccinated at about two years of age. This is, however, only practised in the areas around the ports. International Certificates of Vaccination are issued by all Divisional Medical Officers' health offices.

225. Deratting and issue of certificates is performed only at Suva and services for disinfection and disinsectisation are also available at this port.

226. The necessity to inspect and, where necessary, spray ships and aircraft arriving in the Colony from malarious areas is one which causes inconvenience to the crew and passengers and to to the staff of the various companies involved. It is, however, a practice which is of extreme importance and which must necessarily continue. The establishment of malaria vectors in Fiji would lead to serious consequences as there is a reservoir of parasites in the community due to frequent traffic between the group and territories where malaria is endemic. One or two cases of malaria which had been contracted abroad are reported each year.

227. The staff of the quarantine section also have special responsibilities for the control in the various port areas of *Aedes aegypti* which is indigenous to Fiji. Fiji is therefore a yellow fever receptive area within the terms of the International Sanitary Regulations.

228. Table 8 indicates the burden of traffic that had to be processed through the various ports of entry during 1966.

TABLE 8

INTERNATIONAL TRAFFIC PROCESSED AT PORTS/AIRPORTS OF ENTRY IN 1966

Port/Airport	Incoming Ships/ Aircraft	Out-Going Ships/ Aircraft	Passengers			Crew	Tonnage
			In	Out	Transit		
Suva	602	603	4,845	4,080	55,421	....	3,404
Lautoka	215	215	69	46	5,929	11,167	705
Levuka	Not	available: Fishing Vessels		only			
Nadi	2,524	2,524	61,117	62,974	84,690	54,400	....
Nausori	161	160	1,678	1,492	....	1,000	....
Laucala Bay ..	No figures	(Military Aircraft only nowadays)					

V—TRAINING

Fiji School of Medicine

229. The Fiji School of Medicine traces its origin back to 1878 when a group of young Fijian men were trained as public vaccinators. So resourceful were they, and so evident was the need for rural medical practitioners that in 1886 a number of Fijians started on a medical course at what became known as the Suva Medical School. The length of training was three years, and the first graduates qualified at the end of 1888. Subsequently, Indian and Rotuman students were also accepted for training. In 1928, stimulated and assisted by the Rockefeller Foundation—mainly through the efforts of Dr. S. M. Lambert—the School was enlarged to admit students from other Pacific Islands territories, and was renamed the Central Medical School. In 1961 the name was changed again to the Fiji School of Medicine.

230. The School offers a five year course in medicine leading to the Diploma in Surgery and Medicine and a three year course in dentistry leading to the Diploma of Dental Surgery. In addition, students are trained in a variety of professions ancillary to medicine such as laboratory technology, radiology, physiotherapy, etc.

231. No private students are accepted into the School; all being sponsored and paid for by the Governments of their home territories.

232. The total enrolment in the School for 1966 was 197, the same as that of the preceding year. The number of female students, 38, was however the highest on record. The enrolment of the School was as follows:—

Preliminary Class	16
Medical Course	71
Dental Course	19
Ancillary Courses	57
Agriculture First Year Class ..	18
Post-graduate Courses	13
Visiting Students	2

233. Diplomas and certificates gained by students during the year are shown in the following table:—

TABLE 9

STUDENTS COMPLETING COURSES BY TERRITORY AND SUBJECTS—1966

Territory	Medical	Dental	C.P.H.	Labor. Tech.	Radiography	R.S.H. Course	A.H.I. Theory	Dietitian	Pharmacy	Dental Mech.	Dental Hyg.	Physiotherapy	Total
Fiji	4	1	1	1	2	1	3	4	..	..	2	2	21
British Solomon Islands Protectorate	..	..	..	..	..	..	2	..	..	1	..	..	3
French New Hebrides ..	..	1	..	..	..	..	..	..	..	..	..	..	1
Papua–New Guinea ..	1	..	..	..	..	..	..	..	..	..	..	..	1
Cook Islands	..	..	..	..	..	..	3	..	..	..	..	..	3
Western Samoa	4	..	1	..	..	..	..	..	1	..	..	..	6
United States Trust Territory	..	..	..	..	1	..	..	..	..	..	..	..	1
Gilbert and Ellice Islands Colony	..	..	..	..	..	..	1	..	..	..	..	..	1
Tokelau Islands	1	..	..	..	..	..	..	..	..	..	..	..	1
Niue Islands	..	..	..	..	..	1	..	..	..	..	..	..	1
Tonga	1	..	1	..	..	..	1	..	..	..	..	..	3
Total	11	2	3	1	3	2	10	4	1	1	2	2	42

234. The two visiting students, one from Aberdeen University and one from the University of Newcastle-upon-Tyne, were final year students sent to Fiji under the auspices of the Nuffield Foundation. The scheme, which has been running for five years, enables two selected medical students to spend a period of about 2½ months in Fiji and to take part in the day-to-day life of the School. The visitors are able to see medicine as it is practised in a developing country, whilst their Fiji student hosts gain a valuable insight into the lives of their overseas colleagues.

235. The generosity of the National Federation of Women's Institutes of England and Wales, who provided the funds as part of their contribution to the United Kingdom Freedom from Hunger Campaign, enabled us to build a separate Department of Nutrition and Dietetics at the School; the building was opened in July by Dr. G. Blake-Palmer, Deputy Director-General of Health, New Zealand. It provides facilities, not only for the teaching of nutrition and dietetics at all the various levels of instruction provided in the School, but also as a headquarters for nutrition extension work in Fiji and, in co-operation with the South Pacific Health Service, the other island territories.

Central Nursing School

236. The Central Nursing School in Suva provides basic nursing training at two levels; one course leading to the qualification of Registered Nurse, New Zealand, and the other to a local, Fiji, qualification of Registered Nurse. The latter, which is designed to meet local conditions in Fiji is not recognised for registration outside the Colony.

237. As in the case of the Fiji School of Medicine, so the Central Nursing School acts, in some degree, as a training school for other territories in the South Pacific, particularly in the case of the New Zealand course; the main advantage is, of course, that these girls can obtain the necessary training without the difficulties of having to adapt themselves to an entirely strange environment. In the case of the Colony training course these arguments do not apply so forcibly since most of the territories have their own local schools which provide training at a roughly equivalent level.

238. The roll of the School at 31st December, 1966, was made up as follows:—

	New Zealand Course	*Colony Course*
Fiji	34	81
Cook Islands	3	..
New Hebrides	1	..
Western Samoa	4	..
Gilbert and Ellice Islands Colony	4	4
British Solomon Islands Protectorate ..	1	..

239. The Principal of the Central Nursing School is also responsible for the academic content and standard of the Post-graduate New Zealand Midwifery Training School which is situated at the Colonial War Memorial Hospital. The School ran two classes during the year.

240. The Lautoka Nursing School, which is an integral part of the Lautoka Hospital, is under the control of the Principal of the Central Nursing School as far as teaching standards and curriculum are concerned. It provides training at the local Colony level only. This School also takes in nurse trainees from the Methodist Mission Hospital at Ba, for part of their training, to enable them to gain experience which is not available at their own hospital.

Public Health Nursing School

241. In any developing country much emphasis must, if the maximum benefit is to be obtained from health services, be placed upon public health activities in the field. To carry out this policy effectively, nurses working in the field must receive adequate training in this aspect of their work and this cannot, for obvious reasons, be included in their basic training.

242. In 1964 a post-basic training course in public health nursing was begun at the Health Office in Suva. The course, of three months full-time study, consists of lectures, discussion groups and practical work in domiciliary midwifery, ante-natal and post-natal care, infant welfare, family planning and health education. Some time during the course is also spent in studying environmental health and the public health aspects of the various clinical specialties.

243. This has proved to be a useful course for rural public health nurses and its activities were continued in 1966.

In-service Training

244. The Department's in-service training programme was continued during 1966, despite some staffing difficulties which arose as a consequence of the absence of officers often for long periods of time.

245. Formal courses were limited in number, but full advantage was taken of the opportunities and facilities made available by the authorities in New Zealand to arrange periods of attachment to hospitals for training in a number of clinical fields for both Medical Officers and Nurses. This training is facilitated by the co-operation of the General Medical Council in New Zealand and, in Australia, by the State Registration Board of Victoria. In both, graduates of the Fiji School of Medicine may be granted temporary registration as post-graduate students, thus enabling them to take a full and active part in clinical training.

246. Two more Medical Officers with the Fiji Diploma were accepted as students by the University of Otago for entry to the post-graduate course leading to the Diploma in Public Health. As in 1965, one was sponsored by the World Health Organisation and one by the Fiji Government. It is gratifying to be able to record that, like their two predecessors at this course, both were successful in obtaining their Diplomas.

247. Full advantage was also taken of the short-term fellowship offered by the World Health Organisation to enable members of the Department's staff to attend seminars on a variety of topics. Apart from the value obtained in the formal sessions of these seminars, they prove a most useful means of contact with colleagues in other countries and result in many fruitful exchanges of ideas and information.

C. H. GURD,
Director of Medical Services.

TABLE I

ESTABLISHMENT, 1966

1. Medical and Administrative Section—	
Director of Medical Services	1
Deputy Director of Medical Services	1
Assistant Director of Medical Services (Health)	1
Secretary	1
Senior Medical Officers	4
Senior Consultants	3
Consultants	10
Medical Officers Class I (22), Class II (20), Class III (109)	151
Senior Dental Officer (1), Dental Officer Class I (1)	2
Dental Officers Class II	18
Senior Physiotherapists	2
2. Nursing Section—	
Nursing Superintendent	1
Matrons and Assistant Matrons	6
Sisters-in-Charge	4
Nursing Sisters (52), Health Sisters (12)	64
Principal (1), Tutors (8)	9
Junior Sisters (54), Nurses (480)	534
3. Technical Section—	
Laboratory Superintendent	1
Chief Health Inspector (1), Health Inspectors (11)	12
Assistant Inspectors (Health and Mosquito)	69
Laboratory Technicians	18
Chief Pharmacist and Controller of Medical Stores	1
Pharmacists (4), Pharmacists Class II and Junior Pharmacists (8)	12
Radiographers (4), Junior Radiographers (9)	13
Supervising Dietitian	1
Dental Hygienists (11), Dental Mechanics (3)	14
Junior Physiotherapists	2
4. Executive and Clerical Section—	
Departmental Accountant	1
Higher Executive Officers (3), Executive Officers (6)	9
Clerical Staff	47
5. Supervisory Section—	
Head Attendant, St. Giles' Hospital	1
Assistant Head Attendant (1), Orderlies, St. Giles' Hospital (46)	47
Caretaker, Makuluva Island	1
Storekeepers and Storemen	12
Junior Dietitians and Housekeepers (10), Chief Cooks (5), Laundry Supervisors (4), Headseamstress (2)	21
Receptionist	1
Subordinate Staff	619
6. Fiji School of Medicine—	
Principal	1
Medical Officer	1
Anatomy and Surgery Lecturer	1
Dental Officers	2
Senior Lecturers (5), Lecturer (1)	6
Medical Officer Class III	1
Health Instructor	1
Executive Officer (1), Clerical Staff (4)	5
Laboratory Attendants (3), Chief Cook (1), Housekeeper (1), Subordinate Staff (22)	27
7. Fiji Leprosy Hospital—	
Medical Officer Class II	1
Higher Executive Officer (1), Clerk (1)	2
Overseer (1), Ships' Master (1), School Teachers (2), Police (5)	9
Nursing Sisters (23), Assistant Nursing Sisters (11)	34
Subordinate Staff	46
8. Central Medical Research Library—	
Assistant Librarian	1

TABLE II

ANALYSIS OF RECURRENT EXPENDITURE FOR THE YEARS 1957–1966

Year	Gross Medical Expenditure	Gross Pacific Medical Expenditure	Total Expenditure	Total Recurrent Budget	Total Medical Expenditure Expressed as % of Total Budget	Total Pacific Medical Expenditure Expressed as % of Total Budget	Total Percentage
1966	1,350,774	....	1,350,774	12,584,805	10·73	....	10·73
1965	1,227,427	....	1,227,427	11,655,563	10·53	....	10·53
1964	1,049,985	114,992	1,164,977	10,026,496	10 47	1·15	11·62
1963	955,248	114,601	1,069 849	8,611,613	11·09	1·33	12·42
1962	917,878	106,879	1,024,757	8,043,167	11·41	1·33	12·74
1961	871,434	104,119	975,553	7 412,694	11·75	1·40	13·15
1960	840,223	111,255	951,478	7,052,874	11·91	1·57	13·48
1959	784 707	116,576	901,283	6,516,687	12·04	1·78	13·82
1958	769,822	118,225	888 047	6,734,739	11·43	1·75	13·18
1957	728,919	123,201	852,120	6,609,992	11·04	1·86	12·90

TABLE III

MEDICAL DEPARTMENT EXPENDITURE AND REVENUE

Year	Gross Medical Department Recurrent Expenditure	Total Medical Department Revenue	Net Medical Department Recurrent Expenditure	Revenue Expressed as % of Gross Expenditure	Total Population	Net Expenditure Per Head
						s. d.
1966	1,350,774	154,040	1,196,734	11·13	483,247	49 6
1965	1,227,427	163,024	1,064,403	13·28	469,934	45 4
1964	1,164,977	157,779	1,007,198	13·54	456,390	44 2
1963	1,069,849	134,565	935,284	12·58	441,301	42 5
1962	1,024,757	129,329	895,428	12·62	427,851	42 0

TABLE IV

DETAILS OF MEDICAL DEPARTMENT REVENUE

Description	1962	1963	1964	1965	1966
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
*Licences	701 0 0	754 10 6	857 0 0	913 19 9	680 10 0
Fumigation	3,008 4 1	2,723 2 7	2,866 17 8	3,571 16 11	4,216 12 4
*Hire of Plant and Vehicles ..	10 0 0	8 0 0	....	13 0 0	....
Hospitals	65,174 3 2	79,844 18 6	95,055 10 0	96,724 0 7	100,185 3 5
Rest Houses and Quarantine Stations	174 8 0	96 3 0	63 4 7	....	....
*Publications and Printing ..	17 0 9	1 4 6	40 2 0	29 3 4	10 8 3
*Stores Allocated	1,222 3 4	1,314 17 4	1,704 0 9	1,352 4 5	1,216 4 9
Family Planning Materials ..	....	666 3 6	2,776 10 2	2,261 6 6	2,637 6 3
*Unclaimed and Unserviceable Property	....	15 14 1	7 2 6	4 6 6	....
Leprosy Hospital	6,470 7 6	2,406 7 6	6,045 18 9	6,200 17 9	1,755 3 2
Fiji School of Medicine	43,642 16 7	36,970 8 8	36,762 9 10	39,315 8 10	31,804 0 0
South Pacific Health Service ..	3,738 3 9	3,699 14 3	3,646 15 3	4,305 13 2	4,003 19 5
Medical Services Nadi Airport ..	1,149 2 0	849 6 9	2,146 13 1	2,156 5 0	2,353 10 7
Gold Mining Company on account of Medical Services	100 0 0	200 0 0	200 0 0	200 0 0	200 0 0
Central Nursing School	777 5 10	1,460 0 0	1,586 12 7	2,720 0 9	2,266 13 4
*Board and Lodging (Island Students)	16 3 2	87 14 9	193 11 0	27 15 0	250 10 8
*Miscellaneous	577 19 1	469 12 8	530 19 8	441 18 2	281 1 8
*Recoveries of Overpayments ..	134 6 10	71 19 5	277 18 0	337 17 9	43 8 4
Produce Makogai	1,791 15 8	2,413 8 3	2,975 3 8	1,604 4 7	1,575 2 6
*Vessels and Punts Hire	....	1 0 0	....	....	10 0 0
Payment on account of Services of Government Officers ..	596 11 10	493 16 8	....	....	....
Nuffield Grant	....	....	....	....	....
Meat Inspection	27 15 0	17 2 6	41 13 3	34 16 9	63 2 0
British Empire Cancer Research	....	....	....	444 0 0	444 0 0
Income Tax	....	....	....	5 8 0	3 3 0
National Provident Fund ..	....	....	....	....	40 9 0
Totals	£129,329 6 7	£134,565 5 5	£157,778 2 9	£163,024 3 9	£154,040 8 8

* Estimate figure; records unavailable.

TABLE V

ISSUES OF MEDICAL STORES AND EQUIPMENT

	Drugs and Dressings	Instruments	Bedding, Linen, etc.	X-ray	Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Sales	107 3 3	....	....	....	107 3 3
Special Hospitals	8,192 6 10	317 12 2	3,022 3 0	2,009 3 8	13,541 5 8
General Hospitals	34,190 9 10	14,710 6 9	15,799 13 9	10,488 0 6	75,188 10 10
District and Rural Hospitals	5,698 19 10	886 2 7	2,857 9 0	789 12 10	10,232 4 3
Health Centres and Dispensaries	9,032 9 10	....	3,950 2 3	80 16 1	13,063 8 2
Health Sisters	866 14 3	....	531 17 4	....	1,398 11 7
Nurses	2,482 7 5	....	333 10 9	....	2,815 18 2
Other Medicals	8,404 18 5	....	1,455 8 6	....	9,864 6 11
Missions	95 9 10	....	9 11 8	....	105 1 6
Other Departments	694 10 6	....	61 0 11	....	755 11 5
Totals	£69,769 10 0	£15,914 1 6	£28,020 17 2	£13,367 13 1	£127,072 1 9

TABLE VI

HOSPITALS, HEALTH CENTRES AND DISPENSARIES

	Beds	
MAIN AND SPECIALIST HOSPITALS—		
Colonial War Memorial Hospital, Suva	289	
Tamavua Tuberculosis Hospital, Suva	337	
St. Giles' Mental Hospital, Suva	98	
Fiji Leprosy Hospital, Makogai	200	
		924
DIVISIONAL HOSPITALS—		
Lautoka	222	
Labasa	98	
Levuka	40	
		360
DISTRICT HOSPITALS—		
Taveuni	47	
Savusavu	42	
Sigatoka	30	
Nadi	33	
Ba	26	
Rakiraki	15	
		193
RURAL HOSPITALS—		
Wainibokasi	44	
Nabouwalu, Bua	15	
Vunisea, Kadavu	24	
Vunidawa	18	
Rotuma	20	
Lomaloma, Lau	16	
Lakeba, Lau	11	
Matuku, Lau	8	
Rural Maternity Unit, Nausori	15	
		171
SUBSIDIZED HOSPITAL—		
Methodist Mission Hospital, Ba	51	51
Total		1,699

DISPOSITION OF URBAN AND RURAL HEALTH CENTRES AND DISPENSARIES

Central Division (under Divisional Medical Officer, Central)—

Suva Gaol
Samabula
Beqa
Korovou, Tailevu
Lodoni
Lomanikoro
Mokani
Namosi
Police Station
Nuffield Clinic
Naqali
Nausori
Nayavu
Navua
Korovisilou
Laselevu

Eastern Division (under Divisional Medical Officer, Eastern)—

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

Western Division (under Divisional Medical Officer, Western)—

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

Northern Division (under Divisional Medical Officer, Northern)—

Dreketi
Lekutu
Naduri
Tukavesi
Natewa
Visoqo
Wainunu
Rabe Island
Saqani
Korotasere

Total Rural Dispensaries—43

TABLE VII

BEDS AT DIVISIONAL AND SPECIALIST HOSPITALS

Type	Total	C.W.M. Hospital	Lautoka Hospital	Labasa Hospital	Levuka Hospital	Tamavua Hospital	St. Giles' Hospital	Makogai Hospital
Total	1,284	289	222	98	40	337	98	200
General	290	141	100	35	14	....	....	....
Obstetric	94	59	18	12	5	....	....	....
Private (General)	79	42	26	7	4	....	....	....
Paediatric	113	47	45	12	9	....	....	....
Tuberculosis	410	....	33	32	8	337	....	....
Leprosy	200	....	....	....	....	....	....	200
Psychiatric	98	....	....	....	....	....	98	....

TABLE VIII

HEALTH CENTRE AND DISPENSARY UTILISATION

Vatukoula	63,984	Rabe	2,505
Nausori	41,871	Gau	2,308
Ba	31,730	Koro	2,196
Tavua	30,331	Wainunu	1,738
Namaka	24,135	Namosi	1,582
Nuffield Clinic	16,591	Ono-i-Lau	1,567
Navua	15,042	Yaro, Kadavu	1,541
Samabula	14,304	Natuatuacoko	1,465
Nanukuloa	9,375	Kabara	1,457
Tau	8,614	Moala	1,444
Suva Gaol	7,219	Beqa	1,387
Dreketi	6,926	Tukavesi	1,199
Nayavu	6,308	Saqani	1,165
Korovou	5,582	Natewa	1,041
Korovisilou	4,076	Korotasere	988
Lodoni	3,415	Nadarivatu	982
Naqali	3,398	Kese	915
Mokani	3,130	Nasau	607
Naduri	3,087	Laselevu	540
Police	2,964	Visoqo	525
Lekutu	2,960	Namarai	405
Lomanikoro	2,605		

TABLE IX

DISTRICT AND RURAL HOSPITALS UTILISATION

Hospital	Number of Out-patients	Number of Beds	Number of Admissions	Daily Average Number	Occupancy Index	Average Length of Stay
Nadi	35,786	33	2,189	35·9	1·1	6·0
Rakiraki	16,160	15	741	8·3	0·55	4·1
Sigatoka	19,631	30	1,282	22·5	0·75	6·4
Ba	17,612	26	528	14·5	0·56	10·0
Savusavu	11,984	42	1,458	35·3	0·84	8·8
Taveuni	13,460	47	1,552	24·0	0·51	5·6
Wainibokasi	9,616	44	1,174	19·5	0·44	6·1
Rotuma	3,890	20	462	12·0	0·60	9·5
Vunisea	4,194	24	410	8·6	0·35	7·6
Lomaloma	2,839	16	199	6·0	0·38	11·0
Vunidawa	3,222	18	305	4·9	0·27	5·8
Nabouwalu	2,644	15	224	5·2	0·35	8·5
Lakeba	3,364	11	224	2·8	0·25	4·6
Matuku	1,497	8	408	7·9	0·99	7·1
Nausori Maternity (open for part of year only) ..	2,406	15	426	8·9	0·59	3·3

TABLE X

ANTE-NATAL CLINICS AND OBSTETRIC WARDS
COLONIAL WAR MEMORIAL, LAUTOKA AND LABASA HOSPITALS

	Total	*Fijian*	*Indian*	*Others*
(*a*) *Ante-Natal Clinics*—				
Total	40,732	11,274	27,343	2,115
First Visits	7,445	2,205	4,872	368
Return Visits	33,287	9,069	22,471	1,747
(*b*) *Maternal Welfare*—				
Admissions	7,605	2,197	4,801	607
Deaths	6	2	4	....
Total Confinements	6,358	1,976	3,807	575
Normal Confinements	4,211	1,400	2,426	385
Abnormal Confinements (includes abnormal pregnancy, labour, puerperium)	2,147	576	1,381	190
Complications of Pregnancy—				
Pre-eclamptic Toxaemia	308	47	248	13
Eclampsia	21	6	15	....
Complications of Labour—				
Ante-partum Haemorrhage	109	25	71	13
(*a*) Placenta Praevia	22	8	10	4
(*b*) Accidential	59	10	44	5
(*c*) Unknown	28	7	17	4
Forceps delivery	281	65	192	24
Caesarean Section	155	31	102	22
Complications of Puerperium—				
Post-partum Haemorrhage	297	156	108	33
Puerperal Pyrexia	146	32	104	10
(*c*) *Infant Welfare*—				
Births—				
Total Children born	6,524	2,123	3,839	562
Live Births	6,318	2,087	3,677	554
Multiple Births	92	41	45	6
Neonatal Deaths	149	33	112	4

TABLE XI

OUT-PATIENTS SEEN AT HOSPITALS, HEALTH CENTRES AND DISPENSARIES

Race	Total	C.W.M. Hospital	Lautoka Hospital	Labasa Hospital	Levuka Hospital	15 District and Rural Hospitals	43 Health Centres and Dispensaries	Tamavua Hospital	St. Giles' Hospital
Total	822,337	174,995	93,490	48,905	16,250	148,315	335,204	3,996	1,182
Fijian	304,175	64,014	20,556	6,142	10,035	57,450	143,100	2,843	35
Indian	459,974	99,421	69,763	41,867	2,875	83,534	168,683	725	1,106
Others	58,188	19,560	3,171	896	3,340	7,331	23,421	428	41

TABLE XII

HOSPITAL ADMISSIONS BY RACE

Race	Total	C.W.M. Hospital	Lautoka Hospital	Labasa Hospital	Levuka Hospital	*15 District and Rural Hospitals	Tamavua Hospital	St. Giles' Hospital	Makogai Hospital
Total	31,772	9,958	5,979	2,613	752	11,582	626	228	34
Fijian	13,201	3,496	1,365	478	525	6,784	470	65	18
Indian	15,598	4,955	4,316	2,034	85	3,986	73	136	13
Others	2,973	1,507	298	101	142	812	83	27	3

* Includes one rural maternity unit.

TABLE XIII

HOSPITAL UTILISATION

Hospital	Daily Average Bed State	Occupancy Rate	Average Length of Stay
Colonial War Memorial Hospital ..	289	1·00	10·6
Lautoka	167	0·75	10·2
Labasa	72	0·87	11·9
Levuka	25	0·63	12·2
Tamavua	337	1·00	196·8
St. Giles	92	0·94	147
15 Rural	213	0·58	6·7

TABLE XIV

CENTRAL LABORATORY, SUVA

1. Histology	1,827	1,827
2. Haematology—		
Routine Blood Count	18,241	
Blood Grouping	7,087	
Pre-Transfusion Cross Matching	2,874	
Donors bled for Transfusion	1,885	
Marrow smear	92	30,179
3. Seminal Fluid—		
Examination for Fertility	136	136
4. Parasitology—		
Faeces Microscopic	3,842	
Blood—Microfilariae and Malaria	103	3,945
5. Bacteriology—		
Routine, Microscopic and Culture	10,124	
Drinking Water Supplies	521	
Sea Bath Water	40	
Other Foodstuffs	38	10,723
6. Serology—		
Kahn reaction	2,404	
Agglutination Tests	110	2,514
7. Vaccine Prepared—		
T.A.B. 50 cc. bottles	163	
P.P.D. 23 prepared	2,601	2,764
8. Biochemistry—		
Routine Examinations	5,586	5,586
9. Animal Inoculations—		
Toads for Pregnancy Tests	188	188
10. Post Mortem Examinations—		
Police	102	
Colonial War Memorial Hospital	83	
Maternity Annexe	39	
Tamavua Hospital	4	228
Total		58,941

BRANCH LABORATORY, LAUTOKA

1. Haematology—		
Routine Blood Count	8,750	
Blood Grouping	4,030	
Pre-Transfusion Cross Matching	1,301	
Donors Bled for Transfusion	721	14,802
2. Parasitology—		
Faeces—Microscopic	977	977
3. Bacteriology—		
Routine, Microscopic and Culture	3,907	3,907
4. Biochemistry—		
Routine examination	1,013	1,013
Total		20,699

BRANCH LABORATORY, LABASA

1. Haematology—		
Routine Blood Count	4,507	
Blood Grouping	3,181	
Pre-Transfusion Cross Matching	975	
Donors Bled for Transfusion	825	
		9,488
2. Seminal Fluid—		
Examination for Fertility	13	
		13
3. Parasitology—		
Faeces—Microscopic	471	
Blood—Malaria and Microfilariae	17	
		488
4. Bacteriology—		
Routine, Microscopic and Culture	1,443	
		1,443
5. Biochemistry—		
Routine Examination	580	
		580
6. Animal Inoculation—		
Toads for pregnancy test	55	
		55
Total		12,067

TABLE XV

DENTAL DIVISION—ATTENDANCES

	Suva	Lautoka	Ba	Labasa	Savusavu	Rakiraki	Sigatoka	Nadi	Mobile B240	Tours Ex-Suva	Tamavua Hospital	Suva Gaol	Nausori Health Centre	Total
Adults	17,710	4,641	3,136	4,366	677	1,442	1,074	6	83	650	408	439	2,088	36,720
Children ..	15,275	14,982	3,600	10,745	1,051	2,264	2,081	7	8,290	1,682	18	..	704	60,699

TABLE XVI

DENTAL DIVISION—WORK CARRIED OUT

	Suva	Lautoka	Ba	Labasa	Savusavu	Rakiraki	Sigatoka	Nadi	Mobile B240	Tours Ex-Suva	Tamavua Hospital	Suva Gaol	Nausori Health Centre	Total
Fillings	10,011	4,947	1,286	2,976	635	753	333	..	6,362	772	147	161	..	28,383
Extractions ..	20,117	12,184	6,859	9,272	1,433	3,827	3,408	13	12,015	2,433	339	207	4,124	76,231
Scalings ..	668	245	128	308	75	118	59	..	707	152	36	83	..	2,579
Surgical Operations	71	18	..	36	1	1	..	..	..	..	..	..	..	127
General Anaesthetics ..	23	1	..	6	..	..	..	..	..	..	..	..	..	30
Fractured Mandible Fixations	32	26	1	5	1	..	..	..	..	..	..	..	..	65
Schools Visited and Treated ..	..	37	15	55	32	26	3	..	102	39	..	..	..	309
Revenue ..	£5,627	£1,345	£876	£1,425	£150	£442	£307	£2	..	..	..	..	£134	£10,308

At the Suva Clinic 475 complete dentures and 109 other dentures were supplied and there were 718 attendances for orthodontic treatment and 77 orthodontic appliances were fitted.

TABLE XVII

NOTIFIABLE DISEASES BY RACE

Disease	European	Part-European	Fijian	Indian	Others	Total	Sex	
							Female	Male
1. Acute Poliomyelitis	....	....	....	....	....	....	....	....
2. Ankylostomiasis	4	5	167	229	11	416	155	261
3. Anthrax	....	....	....	....	....	....	....	....
4. Brucellosis (including Undulant Fever)	....	....	....	....	....	....	....	....
5. Chickenpox (Varicella)	6	10	440	301	38	795	344	451
6. Dengue Fever	....	....	....	1	....	1	1	....
7. Diphtheria	....	....	1	2	1	4	2	2
8. Dysentery—								
(*a*) Amoebic	....	1	6	3	1	11	2	9
(*b*) Bacillary	3	2	11	50	4	70	30	40
9. Encephalitis	....	....	....	2	....	2	....	2
10. Enteric Fever—								
(*a*) Typhoid	....	....	3	2	....	5	2	3
(*b*) Paratyphoid	....	....	....	....	....	....	....	....
11. Erysipelas	....	....	12	....	....	12	5	7
12. Food Poisoning	....	....	47	31	....	78	30	48
13. German Measles (Rubella)	2	....	23	22	....	47	21	26
14. Infantile Diarrhoea	6	24	1,843	2,436	168	4,477	2,046	2,431
15. Infectious Hepatitis	27	20	197	236	22	502	212	290
16. Influenza	69	94	18,147	22,796	1,867	42,973	17,424	25,549
17. Leprosy	....	....	16	15	3	34	11	23
18. Leptospirosis	....	....	....	....	....	....	....	....
19. Malaria	1	....	....	1	....	2	....	2
20. Measles (Morbilli)	10	1	20	10	8	49	20	29
21. Meningitis	....	3	43	12	....	58	28	30
22. Puerperal Pyrexia (including Puerperal Fever)	6	1	42	118	10	177	177	....
23. Rheumatism (Acute)	....	....	32	183	13	228	131	97
24. Scarlet Fever	....	....	....	....	....	....	....	....
25. Tetanus	....	1	22	9	....	32	13	19
26. Trachoma	....	2	163	94	137	396	169	227
27. Tuberculosis—								
(*a*) Pulmonary	1	5	324	62	36	428	209	219
(*b*) Other than Pulmonary	....	....	23	4	3	30	15	15
28. Venereal Diseases—								
(*a*) Gonorrhoea	21	51	464	211	38	785	107	678
(*b*) Granuloma Venereum	....	....	....	....	....	....	....	....
(*c*) Ophthalmia Neonatorum and Gon. Ophthalmia	....	....	11	4	3	18	10	8
(*d*) Lymphogranul. Inguinale	....	....	....	....	....	....	....	....
(*e*) Soft Chancre	....	....	....	....	....	....	....	....
(*f*) Syphilis	....	1	2	1	1	4	1	3
(*g*) Venereal Warts	....	....	....	....	....	....	....	....
29. Vitamin and Other Dietary Deficiencies	....	....	31	26	....	57	42	15
30. Whooping Cough (Pertussis)	....	....	33	63	1	97	39	58
31. Yaws	....	....	13	1	2	16	4	12
Total	156	221	22,136	26,925	2,366	51,804	21,250	30,554

TABLE XVIII

NOTIFIABLE DISEASES BY MONTH

Diseases	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1. Acute Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	....
2. Ankylostomiasis	15	57	14	26	14	9	26	44	37	84	45	45	416
3. Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	....
4. Brucellosis (including Undulant Fever	..	..	..	..	..	..	..	..	..	..	..	..	....
5. Chickenpox (Varicella)	93	70	42	28	47	48	45	90	104	80	83	65	795
6. Dengue Fever	..	..	..	1	..	..	..	..	..	..	..	..	....
7. Diphtheria	..	..	1	1	..	1	..	..	..	..	1	..	4
8. Dysentery—													
(a) Amoebic	..	1	1	4	1	2	..	1	..	1	..	..	11
(b) Bacillary	5	14	22	10	2	3	5	4	2	..	1	2	70
9. Encephalitis	..	..	..	..	..	1	..	..	..	..	1	..	2
10. Enteric Fever—													
(a) Typhoid	..	..	2	..	..	1	1	..	..	..	..	1	5
(b) Paratyphoid	..	..	..	..	..	..	..	..	..	..	..	..	....
11. Erysipelas	3	2	..	..	..	1	2	3	..	..	..	..	12
12. Food Poisoning	..	..	..	..	8	16	5	15	3	15	11	5	78
13. German Measles (Rubella)	3	..	..	..	..	..	..	..	..	..	21	23	47
14. Infantile Diarrhoea	475	772	826	600	332	249	133	257	203	204	143	283	4,477
15. Infectious Hepatitis	16	19	35	34	76	56	27	81	48	38	47	25	502
16. Influenza	1,165	4,022	4,861	4,777	8,356	4,743	2,359	2,856	2,562	2,691	1,975	1,606	42,973
17. Leprosy	2	3	6	2	2	4	3	3	3	1	3	2	34
18. Leptospirosis	..	..	..	..	..	..	..	..	..	..	..	..	....
19. Malaria	..	1	..	1	..	..	..	..	..	..	..	..	2
20. Measles	1	3	4	1	..	2	..	3	2	1	21	11	49
21. Meningitis	1	7	5	3	1	2	9	5	7	8	6	4	58
22. Puerperal Pyrexia (including Puerperal Fever)	18	20	13	7	14	19	12	13	9	13	20	19	177
23. Rheumatism (Acute)	25	26	14	18	12	19	12	26	11	37	18	10	228
24. Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	....
25. Tetanus	2	7	5	..	4	..	1	5	..	2	3	3	32
26. Trachoma	19	37	22	11	25	13	8	16	19	12	7	207	396
27. Tuberculosis—													
(a) Pulmonary	21	20	46	28	42	31	36	37	47	40	27	53	428
(b) Other than Pulmonary	4	1	2	1	3	3	1	3	3	3	6	..	30
28. Venereal Diseases—													
(a) Gonorrhoea	55	68	53	48	72	71	50	66	60	110	61	71	785
(b) Granuloma Venereum	..	..	..	..	..	..	..	..	..	..	..	..	....
(c) Ophthalmia Neonatorum and Gon. Ophthalmia	1	..	3	..	6	1	1	..	3	2	1	..	18
(d) Lymph. Inguinale	..	..	..	..	..	..	..	..	..	..	..	..	....
(e) Soft Chancre	..	..	..	..	..	..	..	..	..	..	..	..	....
(f) Syphilis	..	..	..	..	1	2	..	1	..	..	..	..	4
(g) Venereal Warts	..	..	..	..	..	..	..	..	..	..	..	..	....
29. Vitamin and Other Dietary Deficiencies	..	..	1	..	5	8	8	10	13	5	3	4	57
30. Whooping Cough (Pertussis)	..	..	2	12	7	5	..	17	22	20	11	1	97
31. Yaws	..	..	..	..	..	8	4	1	..	..	2	1	16
Total	1,924	5,150	5,981	5,613	9,030	5,318	2,748	3,557	3,158	3,367	2,517	2,441	51,804

TABLE XIX

ESTIMATED POPULATION AT 31ST DECEMBER, 1966

Race	Male	Female	Total	(1965)	Difference	Per cent. Increase	*Population per sq. mile
Fijians	102,239	98,695	200,934	194,998	5,936	3·04	28·54
Indians	123,758	118,466	242,224	235,338	6,886	2·97	34·41
Europeans	5,595	5,090	10,685	10,755	−70	−0·65	1·52
Part-Europeans	5,183	5,011	10,194	9,972	222	2·24	1·45
Other Islanders	3,881	3,584	7,465	7,416	49	0·66	1·06
Rotumans	3,071	2,952	6,023	5,807	216	3·72	0·86
Chinese	3,264	2,341	5,605	5,531	74	1·34	0·80
Others	51	66	117	117	....	....	0·01
Total	247,042	236,205	483,247	469,934	13,313	2·83	68·66

* The above figures are calculated on a total area of 7,040 square inches.

TABLE XX

BIRTHS RECORDED DURING YEARS 1963–1966

Race	1963	1964	1965	1966	1966 Population	Crude Birth-rate per 1,000 of population 1966
Fijians	6,817	6,966	6,943	7,318	200,934	36·42
Indians	8,692	8,936	8,660	8,292	242,224	34·23
Europeans	123	163	190	151	10,685	14·13
Part-Europeans ..	335	310	281	265	10,194	25·99
Other Islanders ..	196	288	240	231	7,465	30·99
Rotumans	192	185	201	238	6,023	39·51
Chinese	159	140	146	158	5,605	28·19
Others	5	1	....	....	117	....
Total	16,519	16,989	16,661	16,653	483,247	34·46

TABLE XXI

DEATHS RECORDED DURING YEARS 1963–1966

Race	1963	1964	1965	1966	1966 Population	Crude Death-rate per 1,000 of population 1965
Fijians	1,158	1,260	1,054	998	200,934	4·97
Indians	1,168	1,255	1,182	1,294	242,224	5·34
Europeans	40	31	27	37	10,685	3·46
Part-Europeans ..	39	49	32	43	10,194	4·22
Other Islanders ..	42	58	34	53	7,465	7·10
Rotumans	37	42	29	22	6,023	3·65
Chinese	24	24	25	37	5,605	6·60
Others	2	1	....	....	117	....
Total	2,510	2,720	2,383	2,484	483,247	5·14

TABLE XXII

MARRIAGES, BIRTHS, DEATHS AND NATURAL INCREASES—1966

Race	Marriages	Births	Deaths	Net Increase	1965 Population	Increase per 1,000
Fijians	1,212	7,318	998	6,320	194,998	32·56
Indians	1,755	8,292	1,294	6,998	235,338	29·74
Europeans	74	151	37	114	10,755	10·60
Part-Europeans ..	85	265	43	222	9,972	22·26
Other Islanders ..	39	231	53	178	7,416	24·00
Rotumans	47	238	22	216	5,807	37·19
Chinese	33	158	37	121	5,531	21·88
Others	....	....	....	....	117	....
Total	3,245	16,653	2,484	14,169	469,934	30·15

TABLE XXIII

INFANT AND CHILD MORTALITY

	Births	Deaths Under 5 years						Infant Mortality Rate per 1,000
		Under 1	1–2	2–3	3–4	4–5	Total	
1963—Fijians	6,817	173	78	28	17	13	309	25
Indians ..	8,692	256	23	16	9	7	311	29
1964—Fijians	6,966	194	84	35	24	16	353	27
Indians ..	8,936	292	40	12	8	12	364	32
1965—Fijians	6,943	133	51	15	12	8	219	19
Indians ..	8,600	257	22	10	10	13	312	30
1966—Fijians	7,318	120	40	16	10	9	195	16
Indians ..	8,292	329	31	21	15	18	370	40

TABLE XXIV

BREAKDOWN OF PATIENTS TREATED AT THE FIJI LEPROSY HOSPITAL DURING 1966

Race	In-patient January 1st 1966	Patients Discharged 1966	Deaths	New Admissions	Re-Admissions	Health Education	Total Admission	Total In-patients 31/12/66
Fijians	89	27	4	9	4	5	18	76
Indians	56	24	2	9	1	3	13	43
Euronesians	7	2	1	..	..	..	..	4
Rotumans	4	1	..	3	..	..	3	6
Chinese	2	..	..	..	..	..	..	2
Tongans	4	1	..	..	..	..	..	3
Solomon Islanders ..	1	..	..	..	..	..	..	1
Banabans	2	..	..	..	..	..	..	2
Cook Islanders ..	1	1	..	..	..	..	..	..
Total	166	56	7	21	5	8	34	137

TABLE XXV

RACIAL ORIGIN OF PATIENTS TREATED AT MAKOGAI, 1911 THROUGH 1966

Race	Admission	Discharge	Deaths	Repatriation	Present Patients Total
Europeans	25	10	14	1	..
Part-Europeans	69	43	17	5	4
Solomon Islanders	242	108	133	..	1
Fijians	1,185	685	424	..	76
Indians	1,623	789	356	435	43
Chinese	33	14	16	1	2
Rotumans	123	80	37	..	6
Samoans	155	95	37	23	..
Niueans	15	6	9	..	..
Cook Islanders	280	206	74	..	..
Tongans	86	63	20	..	3
Banabans	16	13	1	..	2
Gilbertese	240	98	90	52	..
Maoris	4	1	3	..	..
Totals	4,096	2,211	1,231	517	137

TABLE XXVI

ADMISSIONS TO THE FIJI LEPROSY HOSPITAL IN 1966 BY SEX, RACE AND PROVINCE

Province	Sex		Total	Races				Relapses						Total
								Fijian		Indian		Rotuman		
	M	F		Fijian	Indian	Rotuman	Total	M	F	M	F	M	F	
Ba	7	1	8	4	4	..	8	1	..	..	..	..	..	1
Kadavu ..	..	2	2	2	..	..	2	..	1	..	..	..	..	1
Lau	5	..	5	5	..	..	5	..	..	..	..	..	..	..
Macuata ..	4	1	5	1	4	..	5	..	..	..	..	..	..	..
Nadroga ..	1	1	2	1	1	..	2	..	..	..	..	..	..	..
Naitasiri ..	..	1	1	1	..	..	1	..	..	..	..	..	..	..
Ra	1	..	1	1	..	..	1	..	..	..	..	..	..	..
Rotuma ..	3	..	3	..	..	3	3	..	..	..	..	..	..	..
Suva ..	..	2	2	1	1	..	2	..	1	..		..	..	1
Tailevu ..	1	2	3	1	2	..	3	..	..	1	..	..	..	1
Total ..	24	10	34	18	13	3	34	1	2	1	..	..	..	4

TABLE XXVII

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1966, AT THE COLONIAL WAR MEMORIAL, TAMAVUA, LAUTOKA, LABASA AND LEVUKA HOSPITALS

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Ind.	Other	Totals	Deaths
		I—INFECTIVE AND PARASITIC DISEASES						
A 1	001–008	Tuberculosis of respiratory system	13	483	86	45	627	15
A 2	010	Tuberculosis of meninges and central nervous system	..	6	3	1	10	..
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	..	6	..	..	6	..
A 4	012,013	Tuberculosis of bones and joints	..	17	2	2	21	..
A 5	014–019	Tuberculosis, all other forms	1	25	1	3	30	..
A 6	020	Congenital syphilis	..	..	..	1	1	..
A 7	021	Early syphilis	..	..	1	..	1	..
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	2	12	9	..	23	..
A 12	040	Typhoid Fever	..	3	2	..	5	..
A 13	041, 042	Paratyphoid fever and other Salmonella infections	..	..	..	..	..	..
A 14	043	Cholera	..	..	..	..	..	..
A 15	044	Brucellosis (undulant fever)	..	..	..	..	..	..
A 16 (a)	045	Bacillary dysentery	..	3	..	1	4	..
(b)	046	Amoebiasis	2	4	5	..	11	..
(c)	047, 048	Other unspecified forms of dysentery	2	8	5	3	18	..
A 17	050	Scarlet fever	..	..	..	..	..	..
A 18	051	Streptococcal sore throat	..	1	..	..	1	..
A 19	052	Erysipelas	..	..	..	..	..	..
A 20	053	Septicaemia and pyaemia	2	4	2	..	8	2
A 21	055	Diphtheria	..	1	1	1	3	1
A 22	056	Whooping Cough	..	..	..	..	..	..
A 23	057	Meningococcal infections	..	2	..	..	2	1
A 24	058	Plague	..	..	..	..	..	..
A 25	060	Leprosy	..	..	4	..	4	..
A 26	061	Tetanus	2	19	10	..	31	9
A 27	062	Anthrax	..	..	..	..	..	..
A 28	080	Acute poliomyelitis	..	..	..	..	..	..
A 29	082	Acute infectious encephalitis	..	1	5	..	6	..
A 30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis	..	1	..	..	1	..
A 31	084	Smallpox	..	..	..	..	..	..
A 32	085	Measles	..	1	..	..	1	..
A 33	091	Yellow fever	..	..	..	..	..	..
A 34	092	Infectious Hepatitis	17	39	45	6	107	2
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	..	..	..	..	..	..
A 37 (a)	110	Vivax malaria (benign tertian)	1	1	1	..	3	..
(b)	111	Malariae malaria (quartan)	..	..	..	..	..	..
(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	124	Hydatid disease	..	..	2	..	2	1
A 40 (a)	127	Onchocerciasis	..	..	..	..	..	..
(b)		Loasis	..	..	..	..	..	..
(c)		Filariasis (bancrofti)	1	16	5	..	22	..
(d)		Other filariasis	..	..	..	..	..	..
A 41	129	Ankylostomiasis	..	8	17	2	27	..
A 42 (a)	126	Tapeworm (infestation) and other cestode infestations	..	..	..	..	..	..
(b)	130·0	Ascariasis	..	6	13	1	20	..
(c)	130·3	Guinea worm (dracunculosis)	..	..	..	..	..	..
(d)	124, 128, 130·1, 130·2	Other diseases due to helminths	..	..	..	..	..	..
A 43 (a)	037	Lymphogranuloma Venereum	..	..	..	..	..	..
(b)	038	Granuloma inguinale, venereal	..	..	..	..	..	..
(c)	039	Other and unspecified venereal diseases	..	..	..	..	..	..
(d)	049	Food poisoning infection and intoxication	1	4	1	..	6	..
(e)	071	Relapsing fever	..	..	..	..	..	..
(f)	072	Leptospirosis icterohaemorrhagica (Weil's disease)	..	..	..	..	..	..
(g)	073	Yaws	..	1	..	..	1	..
(h)	087	Chickenpox	..	3	5	..	8	..
(i)	090	Dengue	..	..	..	..	..	..
(j)	095	Trachoma	..	5	2	..	7	..
(k)	096·7	Sandfly fever	..	..	..	..	..	..
(l)	120	Leishmaniasis	..	..	..	..	..	..
(m)	121 (a)	Trypanosomiasis gambiensis	..	..	..	..	..	..
	(b)	Trypanosomiasis rhodesiensis	..	..	..	..	..	..
	(c)	Other and unspecified Trypanosomiasis	..	..	..	..	..	..
(n)	131	Dermatophytosis	..	1	2	..	3	..
(o)	135	Scabies	1	3	4	..	8	..

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Ind.	Other	Total	Deaths
A 43 (*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 ..	5	9	24	..	38	2
		II—NEOPLASMS						
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx	1	1	10	1	13	2
A 45	150	Malignant neoplasms of oesophagus	..	1	2	1	4	2
A 46	151	Malignant neoplasm of stomach	..	5	8	1	14	6
A 47	152, 153	Malignant neoplasm of intestine, except rectum	..	2	4	..	6	..
A 48	154	Malignant neoplasm of rectum	..	2	3	..	5	1
A 49	161	Malignant neoplasm of larynx	..	2	1	..	3	1
A 50	162, 163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	1	8	2	3	14	5
A 51	170	Malignant neoplasm of breast	1	15	5	1	22	2
A 52	171	Malignant neoplasm of cervix uteri	4	26	27	..	57	4
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus	..	3	4	..	7	1
A 54	177	Malignant neoplasm of prostate	..	1	7	..	8	1
A 55	190, 191	Malignant neoplasm of skin	..	4	1	..	5	..
A 56	196, 197	Malignant neoplasm of bone and connective tissue	3	2	13	..	18	1
A 57	155, 160, 164, 165, 175, 176, 178-181, 192-195, 198, 199	Other and unspecified sites	1	19	19	2	41	3
A 58	204	Leukaemia and aleukaemia	2	12	5	3	22	4
A 59	200-203, 205	Lymphosarcoma and other neoplasms of lymphatic and haematopoetic system	1	3	10	4	18	2
A 60	210-239	Benign neoplasms and neoplasms of unspecified nature ..	4	49	41	2	96	1
		III—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES						
		IV—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS						
A 61	250, 251	Nontoxic goitre	2	14	20	1	37	..
A 62	252	Thyrotoxicosis with or without goitre	1	5	15	1	22	1
A 63	260	Diabetes mellitus	18	49	316	7	390	12
A 64 (*a*)	280	Beriberi	..	..	..	..	..	..
(*b*)	281	Pellagra	..	..	..	..	..	..
(*c*)	282	Scurvy	..	..	..	..	..	..
(*d*)	283-286	Other deficiency states	..	32	11	..	43	4
A 65 (*a*)	290	Pernicious and other hyperchromic anaemias	..	2	13	..	15	1
(*b*)	291	Iron deficiency anaemias (hypochromic)	1	24	134	..	159	5
(*c*)	292, 293	Other specified and unspecified anaemias	..	1	8	1	10	..
A 66 (*a*)	241	Asthma	8	38	108	1	155	1
(*b*)	240, 242-245, 253, 254, 270-277, 287-289, 294-299	All other allergic disorders endocrine, metabolic and blood diseases	3	21	37	..	61	1
		V—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS						
A 67	300-309	Psychoses	..	11	18	..	29	..
A 68	310-324, 326	Psychoneuroses and disorders of personality	6	13	18	2	39	..
A 69	325	Mental deficiency	..	2	8	..	10	..
		VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS						
A 70	330-334	Vascular lesions affecting central nervous system	1	23	68	3	95	18
A 71	340	Nonmeningococcal meningitis	7	30	18	1	56	7
A 72	345	Multiple sclerosis	..	..	1	1	2	..
A 73	353	Epilepsy	7	14	31	2	54	..
A 74	370-379	Inflammatory diseases of the eye	5	22	29	4	60	..
A 75	385	Cataract	10	32	108	6	156	1
A 76	387	Glaucoma	2	6	10	2	20	..
A 77 (*a*)	390	Otitis externa	1	2	2	..	5	..
(*b*)	391-393	Otitis media and mastoiditis	1	12	14	..	27	..
(*c*)	394	Other inflammatory diseases of ear	..	..	1	..	1	..
A 78 (*a*)	380-384, 386, 388, 389	All other diseases and conditions of eye	7	26	52	8	93	..
(*b*)	341, 344, 350-352, 360-369, 395-398	All other diseases of the nervous system and sense organs ..	8	17	41	4	70	4

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Ind.	Other	Total	Deaths
		VII—DISEASES OF THE CIRCULATORY SYSTEM						
A 79	400–402	Rheumatic fever	5	13	150	3	171	1
A 80	410–416	Chronic rheumatic heart disease	4	41	142	3	190	14
A 81	420–422	Arteriosclerotic and degenerative heart disease	24	18	170	6	218	28
A 82	430–434	Other diseases of heart	5	23	48	2	78	14
A 83	440–443	Hypertension with heart disease	7	10	44	10	71	8
A 84	444–447	Hypertension without mention of heart	5	30	85	6	126	8
A 85	450–456	Diseases of arteries	4	4	30	..	38	3
A 86	460–468	Other diseases of circulatory system	15	30	65	7	117	8
		VIII—DISEASES OF THE RESPIRATORY SYSTEM						
A 87	470–475	Acute upper respiratory infections	11	54	57	5	127	..
A 88	480–483	Influenza	10	36	14	5	65	..
A 89	490	Lobar pneumonia	22	249	130	24	425	18
A 90	491	Bronchopneumonia	17	182	131	8	338	17
A 91	492, 493	Primary atypical, other and unspecified pneumonia	8	37	18	1	64	6
A 92	500	Acute bronchitis	8	33	55	2	98	2
A 93	501, 502	Bronchitis, chronic and unqualified	4	27	37	1	69	1
A 94	510	Hypertrophy of tonsils and adenoids	9	6	161	2	178	..
A 95	518, 521	Empyema and abscess of lung	3	9	6	2	20	..
A 96	519	Pleurisy	..	3	3	2	8	1
A 97 (*a*)	523	Pneumoconiosis	..	3	4	..	7	1
(*b*)	511–517, 520–522, 524–527	All other respiratory diseases	9	119	60	13	201	3
		IX—DISEASES OF THE DIGESTIVE SYSTEM						
A 98 (*a*)	530	Dental caries	..	1	3	..	4	..
(*b*)	531–535	All other diseases of teeth and supporting structures	2	8	7	..	17	..
A 99	540	Ulcer of stomach	9	37	41	7	94	5
A 100	541	Ulcer of duodenum	9	24	65	5	103	2
A 101	543	Gastritis and duodenitis	7	9	24	1	41	..
A 102	550–553	Appendicitis	45	129	237	13	424	1
A 103	560, 561, 570	Intestinal obstruction and hernia	25	130	149	12	316	3
A 104 (*a*)	571·0	Gastro-enteritis and colitis between 4 weeks and 2 years	17	91	100	7	215	14
(*b*)	571·1	Gastro-enteritis and colitis, ages 2 years and over	15	150	51	6	222	1
(*c*)	572	Chronic enteritis and ulcerative colitis	1	6	7	2	16	..
A 105	581	Cirrhosis of liver	2	19	25	5	51	7
A 106	584, 585	Cholelithiasis and cholecystitis	6	9	59	1	75	1
A 107	536–539, 542, 544, 545, 573–580, 582, 583, 586, 587	Other diseases of digestive system	21	46	88	8	163	6
		X—DISEASES OF THE GENITO-URINARY SYSTEM						
A 108	590	Acute nephritis	5	19	115	3	142	..
A 109	591–594	Chronic, other and unspecified nephritis	4	27	81	2	114	10
A 110	600	Infections of kidney	1	8	37	3	49	..
A 111	602, 604	Calculi of urinary system	5	4	78	10	97	..
A 112	610	Hyperplasia of prostate	3	9	27	5	44	5
A 113	620, 621	Diseases of breast	1	7	9	..	17	..
A 114 (*a*)	613	Hydrocele	6	84	30	7	127	..
(*b*)	634	Disorders of menstruation	36	47	132	10	225	..
(*c*)	601, 603, 605–609, 611, 612, 614–617, 622–633, 635–637	All other diseases of the genito-urinary system	73	210	552	33	868	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	1	6	12	1	20	..
A 116	642, 652, 685, 686	Toxaemia of pregnancy and the puerperium	15	51	240	3	309	..
A 117	643, 644, 670–672	Haemorrhage of pregnancy and childbirth	12	122	113	19	266	1
A 118	650	Abortion without mention of sepsis or toxaemia	46	158	322	16	542	..
A 119	651	Abortion with sepsis	2	20	21	2	45	..
A 120 (*a*)	645–649, 673–680, 683, 687–689	Other complications of pregnancy, childbirth and the puerperium	101	509	1,516	57	2,183	..
(*b*)	660	Delivery without complications	208	1,160	2,017	136	3,521	1

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Ind.	Other	Total	Deaths
		XII—DISEASES OF THE SKIN AND CELLULAR TISSUE						
		XIII—DISEASES OF THE BONES AND ORGANS OF MOVEMENT						
A 121	690–698	Infections of skin and subcutaneous tissue	45	271	223	12	551	3
A 122	720–725	Arthritis and spondylitis	13	60	69	4	146	1
A 123	726, 727	Muscular rheumatism and rheumatism unspecified	1	4	4	..	9	1
A 124	730	Osteomyelitis and periostitis	4	26	36	1	67	..
A 125	737, 745–749	Ankylosis and acquired musculo-skeletal deformities	..	22	11	..	33	..
A 126 (*a*)	715	Chronic Ulcer of Skin (including tropical ulcer)	3	12	12	..	27	..
(*b*)	700–714, 716	All other diseases of skin	2	5	15	2	24	..
(*c*)	731–736, 738–744	All other diseases of musculo-skeletal system	7	34	32	..	73	..
		XIV—CONGENITAL MALFORMATIONS						
A 127	751	Spina bifida and meningocele	..	3	13	..	16	..
A 128	754	Congenital malformations of circulatory system	2	18	39	2	61	7
A 129	750, 752, 753, 755–759	All other congenital malformations	4	49	78	6	137	8
		XV—CERTAIN DISEASES OF EARLY INFANCY						
A 130	760, 761	Birth injuries	..	1	1	1	3	1
A 131	762	Postnatal asphyxia and atelectasis	..	3	4	1	8	2
A 132 (*a*)	764	Diarrhoea of newborn (under 4 weeks)	1	10	10	1	22	2
(*b*)	765	Ophthalmia neonatorum	2	9	1	..	12	..
(*c*)	763, 766–768	Other Infections of newborn	..	2	6	..	8	..
A 133	770	Haemolytic disease of newborn	..	9	2	..	11	2
A 134	769, 771, 772	All other defined diseases of early infancy	1	18	21	1	41	2
A 135	773, 776	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	11	60	192	5	268	17
		XVI—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS						
A 136	794	Senility without mention of psychosis	..	..	2	..	2	1
A 137 (*a*)	788·8	Pyrexia of unknown origin	5	11	37	3	56	..
(*b*)	793	Observation, without need for further medical care	98	315	994	29	1,436	2
(*c*)	780–787, 788·1–788·7, 788·9, 789–792, 795	All other ill-defined causes of morbidity	8	15	81	..	104	..

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

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Ind.	Other	Total	Deaths
AE 138	E810–E835	Motor vehicle accidents	12	40	89	11	152	7
AE 139	E800–E802, E840–E866	Other transport accidents	3	2	11	2	18	2
AE 140	E870–E895	Accidental poisoning	5	16	57	1	79	1
AE 141	E900–E904	Accidental falls	39	102	159	17	317	6
AE 142	E912	Accident caused by machinery	2	14	9	2	27	..
AE 143	E916	Accident caused by fire and explosion of combustible material	1	28	35	1	65	3
AE 144	E917, E918	Accident caused by hot substance, corrosive liquid, steam and radiation	4	19	35	1	59	..
AE 145	E919	Accident caused by firearm	..	1	2	1	4	..
AE 146	E929	Accidental drowning and submersion	1	1	1	..	3	..
AE 147 (*a*)	E920	Foreign body entering eye and adnexa	3	10	18	..	31	..
(*b*)	E923	Foreign body entering other orifice	2	4	5	..	11	..
(*c*)	E927	Accidents caused by bites and stings of venomous animals and insects	5	19	34	3	61	..
(*d*)	E928	Other accidents caused by animals	..	1	7	..	8	..
(*e*)	F910, F911, E913–E915, E921–E922, E924–E926, E930–E965	All other accidental causes	21	83	36	6	146	4
AE 148	E970–E979	Suicide and non-accidental self-inflicted injury	2	7	9	..	18	2
AE 149	E980–E985	Homicide and injury purposely inflicted by other persons (not in war)	5	59	61	2	127	..
AE 150	E990–E999	Injury resulting from operations of war	..	..	..	..	..	..

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

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Ind.	Other	Total	Deaths
AN 138	N800–N804	Fracture of skull	5	41	45	2	93	5
AN 139	N805–N809	Fracture of spine and trunk	3	32	26	..	61	1
AN 140	N810–N829	Fracture of limbs	38	95	160	12	305	5
AN 141	N830–N839	Dislocation without fracture	3	12	6	3	24	..
AN 142	N840–N848	Sprains and strains of joints and adjacent muscle	..	6	7	2	15	..
AN 143	N850–N856	Head injury (excluding fracture)	20	41	61	12	134	3
AN 144	N860–N869	Internal injury of chest, abdomen and pelvis	1	7	13	..	21	4
AN 145	N870–N908	Laceration and open wounds	11	78	56	10	155	..
AN 146	N910–N929	Superficial injury, contusion and crushing with intact skin surface	3	6	16	1	26	..
AN 147	N930–N936	Effects of foreign body entering through orifice	2	11	14	..	27	..
AN 148	N940–N949	Burns	8	45	76	5	134	3
AN 149	N960–N979	Effects of poisons	5	17	60	..	82	2
AN 150	N950–N959, N980–N999	All other and unspecified effects of external causes	6	15	28	..	49	2

TABLE XXVIII

ENVIRONMENTAL SANITATION

URBAN/TOWNSHIP/RURAL SANITARY DISTRICTS OF THE COLONY OF FIJI

REPORT OF HEALTH INSPECTORS FOR THE YEAR, 1966

1. Summary of Inspections

Type of Premises, etc.	*Inspections*	*Re-inspections*	*Total*
House-to-house Inspection of District	49,873	22,899	72,772
Investigation of Complaints, Nuisances, etc.	3,258	579	3,837
New Buildings Sites—before approval	2,854	188	3,042
New Buildings Works in Progress	3,360	1,367	4,727
Investigation of Infectious Disease and Disinfection	2,008	255	2,263
Shipping Sanitary Surveys	178	39	217
Houses-let-as-Lodgings and Lodging Houses	241	207	448
Factories and Workshops	603	374	977
Cemeteries	148	81	229
Schools	611	233	844
Checking Sanitary Services (A/cs., etc.)	562	66	628
Laundries	445	261	706
Hairdressers, Chiropodists, etc.	955	638	1,593
Foodshops, Foodstores, Markets, etc.	4,146	2,048	6,194
Eating Houses and Ice Cream Premises	2,167	1,322	3,489
Aerated Water and Ice Factories	211	138	349
Kava Saloons	209	106	315
Bakehouses	609	436	1,045
Slaughterhouses	138	102	240
Butchers' Shops	374	267	641
Food Vehicles	393	222	615
Miscellaneous inspections	2,469	473	2,942
Total	75,812	32,301	108,113

2. Written Notices, etc., Issued

Type of Notices, etc.	*Number*
Intimation Notices Served	8,401
Buildings Surveyed for Closure or Demolition	134
Closing Orders Served	116
Buildings Demolished after Service of Orders by Owners	28
Statutory Notices Served	285
Demolition Orders Served	28
Building Demolished by Local Authority	5

3. Building Applications Dealt With

Applications in respect of	*Number*	*Value*
New Commercial Buildings	183	£997,540
New Dwellings	1,828	1,407,107
Alterations and Repairs	920	644,009
Miscellaneous Works and Septic Tank Installations	1,318	484,731
Total	4,249	£3,533,387

Applications for	*New Building*	*Alterations and Repairs*	*Septic Tank*
Withdrawn	17	7	9
Refused	24	1	4
Lapsed	23	16	16
Total	64	24	29

Completion certificates issued in respect of	*Number*	*Value*
New Commercial Buildings	117	£577,504
New Dwellings	756	808,448
Alterations and Repairs	337	202,823
Miscellaneous Works and Septic Tank Installations	468	233,095
Total	1,678	£1,821,870

4. Summary of Sanitary Improvements, etc. (All Types of Premises)

Item	*Ordered*	*Completed**
Repairing of Buildings	646	252
Improvements to Lighting and Ventilation of Buildings	257	93
Removal of Unauthorised Erections	381	167
Abatement of Overcrowding	86	39
New Privies (all types)	4,348	2,134
Repairing, Cleansing or Flyproofing of Privies	3,640	1,814
Filling in of Insanitary Privies	1,183	628
New Bathrooms or Washing Places	512	134
Repairing or Cleansing of Bathrooms or Washing Places	857	468
New Kitchens	274	72
Repairing or Cleansing of Kitchens	1,027	608
Provision of New Drains	1,000	515
Repairing or Cleansing of Existing Drains	3,808	2,408
New Wells	189	92
Repairing or Improvement of Wells	654	285
New Water Tanks	259	142
Repairing, Screening or Cleansing of Water Tanks	765	404
Removal of Accumulations of Refuse	7,136	4,669
Clearing of Overgrowth or Long Grass	5,050	3,215
Provision of Garbage Tins	2,628	1,594
Abatement of Nuisances from Animals or Poultry	1,983	1,038
Abatement of Mosquito Breeding	6,671	5,271
Cleansing of Food Premises	1,718	1,132
Carried Forward	45,072	27,174

Item	*Ordered*	**Completed*
Brought Forward ..	45,072	27,174
Structural Improvements to Food Premises ..	466	234
Cleansing of Food Vehicles	212	177
Improvements to Food Vehicles	59	25
Cleansing or Improvement of Hairdressers' Premises	483	384
Cleansing or Improvement of Laundries	225	167
Cleansing or Improvement of Schools	145	85
Cleansing or Improvement of Shipping	14	14
Impounding of Straying Cattle	80	69
Miscellaneous	1,248	865
Total	48,004	29,194

* This column may include work completed during the year under review but ordered during the previous year.

5. Mosquito Control

Premises Inspected for Mosquito Larvae	72,772
Premises at which larvae found	6,671
Larval Index	9·1%

6. Shipping Arrivals

	Number
(*a*) Pratique and Boarded	96
(*b*) Radio Pratique	244
(*c*) Pratique and Malarial Inspection ..	140
(*d*) Pratique and Malarial Spraying ..	163
Total	643

Aircraft Arrivals

	Number
(*a*) Malarial Spraying ..	1,121
(*b*) Not Sprayed	1,776
	2,897

7. Disinfection, Disinfestation and Fumigation

Type of Premises, Vessels or Aircraft	*Method*	*Number*
Local Vessels	Cyanide	23
Local Vessels	Dieldrin and Flick	21
Overseas Vessels	Aerosol Bombs	163
Overseas Vessels	Cyanide	13
Aircraft	Aerosol Bombs	1,121
Office, Dwellings, Pit Latrines, etc.	DDT, Flit, Dieldrin, Phenol and Nuvon, Pyagara smoke bombs, etc.	390
Second-hand Clothing	Formalin, Paraformaldehyde gas bags	4,144 bags
Hospitals	Dieldrin, Formalin and Flick	2 wards
Wells	Chloride of Lime	80
Miscellaneous	DDT, etc.	142
International Deratization Certificates		13
International Deratization Certificates Issued		24
Local Vessels Fumigation Exemption Certificates		9
Local Vessels Fumigation Certificates Issued		50

8. Anti-Rat Measures

Pival Baits Laid	54,107
Traps Set	3,744
Warfarin Baits Laid	1,602

	Others	*Rattus Rattus*	*Rattus Norvegicus*	*Total*
Rats Destroyed by Trapping ..	....	135	189	324
Rats Destroyed by Poison Baits (Warfarin and Pival)	....	1,720	3,218	4,938
Rats Destroyed by Fumigation—				
Overseas Shipping	....	39	2	41
Local Shipping	....	34	....	34
Aircraft	....	....	....	....
Rats submitted for Laboratory Examination	....	6	5	11
Rats Found Infected	....	....	....	....
Mice Destroyed by Poison	....	....	....	2,470

9. Supervision of Labour Gangs, etc.

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

Number of men employed	80
Vacant Crown Land cleared of overgrowth	3,268 acres
Drains cleaned and regraded	2,956 chains
Number of loads of refuse removed	9,265 loads
Septic tanks emptied	433
Concrete Invert Drains laid	2,317 feet
Vacant Land Filled and Levelled	27½ square chains

10. Food Inspection and Sampling

Unsound Foodstuffs Condemned and Destroyed	116,829 lb.
Fish	748 lb.
Tinned Foodstuffs Condemned and Destroyed	265 tins
Unsound Eggs	30 dozens

Food and Water Samples taken—

	Type	*Number*
Fresh Water	Chemical	14
Fresh Water	Bacteriological	186
Milk—genuine	Chemical	61
Milk—non-genuine	Chemical	49
Powdered Milk	Chemical	4
Other Milk and Milk Products	Chemical	11
Ice Cream	Chemical	10
Ice Cream	Bacteriological	12
Other Foodstuffs	Chemical	77
Other Foodstuffs	Bacteriological	42
	Total	466

Meat Inspection	*Number*
Carcases Inspected—	
Cattle	158
Pigs	45
Goats	9
Total	212
Carcases Condemned	....
Organs and Parts Condemned	113

11. Legal Proceedings

Defendants, Offences and Results of Action—

	Public Health Regulations	*Pure Food Ordinance*	*Town Planning Ordinance*	*Quarantine Regulations*
Number of cases taken	163	6	7	..
Convictions obtained	134	4	7	..
Cases discharged	8	..	..	..
Cases acquitted	13	..	..	..
Cases withdrawn	8	2	..	..
Revenue from fines and costs	£631 19 6	£76 16 0	£80 10 0	

12. Remarks and Details of any Other Special Works carried out during the Year under Review

(*a*) The following campaigns were held during the year:—

(i) A Mosquito Control Campaign was held in all Urban, Townships and Rural Sanitary Districts.

(ii) A Rodent Control Campaign was held within the Suva City Area in close conjunction with the Suva City Council.

(*b*) Three thousand six hundred and seventy-eight water-seal latrines were installed within the Rural Areas during the year.

13. Seaport and Airport Health Quarantine

Ships given Pratique	643
Landing passengers	4,845
Aircraft given Pratique	2,897
Landing passengers	54,588
Local vessels fumigated	23
Overseas vessels fumigated	13
Aircraft—ships treated with Aerosol Bombs	1,121
International Deratization Certificate Issued	14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