Photo 11.1 Hospital at government station in Ahau, 2003. *Alan Howard.*

Photo 11.2 Inside the children's ward at the hospital, 2001. *F. Deschamps.*

11 Population and Health

Resident Commissioner Macdonald: The vaccinations carried out of late have nearly all proved unsuccessful and this I believe due to the parents of the children vaccinated washing the lymph off with Sea water after the vaccinator's back was turned. Now this is very bad conduct on the part of the people and they are liable to punishment if they are caught at these practices. The government goes to the expense of procuring lymph and paying a man to vaccinate, for what reasons do you think?

Chief Tuipenau: We are not quite sure, but some people say that all the people who belong to England are to be marked this way.

Minutes of the Rotuma Council of Chiefs,
6 February 1908

Depopulation Following European Intrusion

Rotuma's early encounters with Europeans set in motion a process of depopulation that lasted until early in the twentieth century. In this respect, Rotuma was affected in much the same way as other Oceanic peoples. The degree to which depopulation took place cannot be measured precisely, nor even estimated with confidence. Early visitors gave divergent estimates of the island's population, so there is no reliable baseline from which to measure change. Calculations range from 5,000 by Tromelin,[1] to 2,000 or 3,000 by Lucatt.[2] Gardiner, taking into consideration abandoned house sites, native estimates of fighting men from different localities, evidence of planting remains, burial grounds, and the relocation of people around churches, concluded that "the population in 1850 cannot have been short of 4,000, and

that at the beginning of the century there were nearly 1,000 more."[3]

The first official census, taken shortly after cession, in 1881, showed a population of 2,452. By 1891 this figure had dropped to 2,219 and in 1901 to 2,061. After a steady increase for a few years, the population fell to a low of 1,937 following a measles epidemic in 1911.

The declining population (of Fiji in general) got the attention of the colonial administration early on. Responding to a circular from the Colonial Secretary dated 3 February 1892, Acting Resident Commissioner H. E. Leefe expressed the opinion that inbreeding was the main cause of the high mortality rates. He wrote, "The mortality among the children of whites married to Rotumans is very small." Further, he thought, "The healthy young men go away to Torres Strait and Fiji: and the sickly ones remain and beget children."[4] As for remedies, Leefe suggested:

> the importation of new blood. This would have to be done by bringing women, as male strangers would have no rights here. Fijians would not be welcomed, but those from Samoa, the Ellice Group, and some of the Line Islands would amalgamate well with the Rotumans. I fully recognize the difficulty of this measure, but I firmly believe it would be the only way of saving the race, which is, without exception, the nicest one I have ever had to deal with; and the extinction of which would be a general loss to the whole Australasian Archipelago.[5]

In addition to being overly simplistic, Leefe's argument is not supported by demographic evidence. A check of registry data between 1903 and 1920 shows approximately the same percentage of children born to parents of mixed ancestry died before the age of eighteen (71%) as to those born to Rotuman parents (70%).[6] Leefe also paid insufficient attention to the emigration of Rotuman men as laborers and as crewmen aboard European vessels.

From a low of 1,937 persons following the measles epidemic of 1911, the population began to slowly rebound. By 1921 the number of Rotumans on the island had increased to 2,112. The next census, taken in 1936, yielded a figure of 2,543. Subsequent censuses, taken at ten-year intervals, showed a steady increase: 2,711 in 1946, 2,993 in 1956, and 3,235 in 1966. This tells only part of the story, however, because from the 1920s on Rotumans migrated to

Fiji at an accelerating rate. Thus the number of Rotumans living in Fiji increased from 123 in 1921 to 2,550 in 1966. Throughout the period from 1911 to 1966 the crude birth rate remained relatively constant (between 40 and 50 per thousand per annum) while the death rate dropped steadily (from over 50 to less than 10 per thousand per annum), resulting in a rapid increase in the overall population. From a low of less than 2,000 in 1911, the total number of Rotumans in Fiji (including Rotuma) had climbed to over 6,000 by the end of the colonial period in 1970. In addition, an increasing number of Rotumans migrated abroad, taking up residence in Australia, New Zealand, Canada, the United States, and elsewhere, a subject dealt with in chapter 14.

Early Emigration

As discussed in chapter 5, large numbers of young men left the island on European vessels as soon as opportunities presented themselves. Although many returned after a few years' adventure, there was a distinct tendency for emigration to exceed return migration. Commenting in 1867 on the extent of emigration, Rev. Fletcher wrote that more than 700 young men were known to have left the island in recent memory.[7]

The colonial administration recognized the seriousness of the problem and ordered an inquiry even before cession took place. Deputy Commissioner Gordon inquired into labor recruiting on Rotuma in 1879 and obtained figures from five districts (Itu‘ti‘u, Itu‘muta, Juju, Pepjei, and Malhaha). He reported that 177 men were known to be away, approximately one-third of them married.[8]

The chiefs were unanimous in their agreement that some kind of regulation controlling emigration would be desirable. As a consequence Gordon suggested, and the chiefs passed, two provisionary regulations, one prohibiting boys under the age of sixteen from leaving the island, the other restricting emigration to unmarried men over sixteen years, with the permission of their district chiefs, for a period not to exceed one year.[9] These regulations were not enforced, however, and emigration was never effectively controlled.

Although the chiefs expressed the opinion that "the hard rules made by the missionaries" were to blame (see chapter 8),[10] there is reason to doubt that religious restrictions played a significant part in encouraging young men to leave

the island. The simple desire to see new places and peer pressure were probably more powerful motivations. Emigrant men who returned encouraged travel by virtue of the stories they told recounting their adventures. Even today, a number of songs sung in the traditional style refer to the adventures of these early travelers. The way this affected young men is reflected in the annual report of the Resident Commissioner for the year 1886:

> After inquiring I find that there are not more than 30 adult male Natives on the island that have not been abroad. Large numbers have stayed away many years and wandered to the furthest corners of both hemispheres. It is a cutting reproach to cast at a man that he has not been away from the island; hence, partly, the anxiety of the young men to accomplish their long cherished dream.[11]

The 1881 census showed a gender imbalance in the 15–40 year age groups of 440 males to 638 females. The Resident Commissioner at the time, Charles Mitchell, attributed the surplus of females to the fact that so many young men had left the island.[12] A significant portion of the men who were away had been recruited as laborers to work in the Hawaiian Islands and Sāmoa, and they faced difficulties in returning. In a series of dispatches during 1883, Resident Commissioner William Gordon requested assistance in having the 50–60 Rotuman men in the Hawaiian Islands, and an unspecified number from Sāmoa, repatriated. He commented that the men in Sāmoa had been paid in goods instead of money and were thus unable to pay for passage home.

An increase in the death rate following exposure to new diseases such as measles, dysentery, tuberculosis, and whooping cough played an even greater role in reducing the population. Rotumans both lacked immunity and culturally appropriate medical practices with which to respond to introduced diseases, resulting in many more deaths from such diseases than in European populations. It is also likely that, given the sex imbalance that resulted from male emigration, the birth rate declined as well.

Early Medical Conditions and Traditional Healing Practices

The first European observer to comment on medical conditions in Rotuma was René Lesson in 1824. He described

Rotumans in terms that suggest robustness and a concern for hygiene:

> The inhabitants of Rotuma are tall and well-built.... Their facial appearance is gentle and engaging, full of fun and gaiety. Their features are regular and the young, with their light coloring, are very good looking. ...Their large, black eyes are full of spirit, their noses somewhat flat and their large mouths furnished with two rows of the whitest teeth....Their limbs are well-proportioned, their legs shapely; more than one of the young men who came on board could have served as sculptors' models. Their bodies are pleasantly rounded, with soft smooth skin of a light copper color, though some are darker-skinned. Since they are frequently in the water, they are very clean and take good care of their hair.[13]

From the renegade sailor referred to as Williams John, Lesson obtained information concerning Rotuman medical practices:

> most ailments are as simple as their remedies, aside from chronic ulcers, chest diseases, and another which ultimately eats away the legs [yaws]. Doctors do not seem to form a specific professional class, although one chief was himself the king's [*sau*'s] doctor. John himself had witnessed the manner in which an intestinal ailment was treated. The doctor went to the patient's home and had him transported to a nearby dwelling where he was laid on his back, naked to the waist, on several woven mats. There, he was roughly massaged with oil all over his body. Then, moving to his head, the doctor rubbed his temples as though trying to express something by this action. The patient was then turned on his stomach and after a few days had completely recovered.
>
> For cuts and wounds, they make a kind of poultice from the bark of a tree and various plants. They apply it to the wound with leaves and John felt obliged to praise its salutary effect.[14]

Dr. George Bennett, the physician who visited the island in 1830, also described the Rotumans as a well-formed people who were cleanly in their persons and habits, but he observed that dysentery and opthalmia were prevalent

diseases, the latter being particularly common among infants. He also reported treating a chief for rheumatic joints, in return for which he was offered a fine mat.[15]

Edward Lucatt visited the island eleven years later and observed that Rotumans "are subject to huge swellings of the members called by us elephantiasis, but by them fe-fe *[få'få];* to scorbutic eruptions, and to the breaking out of virulent tumors, which eat into and decay the bone."[16] He confirmed Bennett's observations concerning the prevalence of eye disease, describing it as "a blight, which at seasons affects the atmosphere, and many are apt to lose sight of one or both of their eyes."[17]

Gardiner noted at the end of the nineteenth century that older men claimed yaws was introduced to Rotuma following European contact, and cited as supporting evidence that older people of both sexes did not seem to have as many or such large scars from it as did the younger generation.[18] He also reported a consensus among Rotumans that coughs, colds, pleurisy, and pneumonia had been introduced following European intrusion. He considered that to be unlikely, but found compelling testimony for a great intensification "due to changes in the mode of life." He was convinced, however, that phthisis (pulmonary tuberculosis) had been introduced in recent years, and commented that "it is a disease of the nature and duration of which the people are absolutely ignorant."[19]

Gardiner's account supports the view that Rotumans remained committed to a high level of personal hygiene and modesty throughout the nineteenth century:

> Their habits are cleanly in the extreme. Both sexes daily wash themselves all over with fresh water and soap. The women wash themselves, in addition, morning and evening in the sea. Formerly, they used a red earth, which lathers slightly with water. It was a not inconsiderable source of profit to the islet of Uea, where it is quite abundant. Bathing in public without the *kukuluga,* or sulu, round the waist is absolutely unheard of, and would be much looked down upon.[20]

Early European visitors also commented on the ubiquitous use of turmeric *(mena)* mixed with coconut oil as a body ointment—particularly on ceremonial occasions such as weddings, funerals, and chiefly installations. Lesson wrote:

> Their bodies are daubed with dust of red, orange or yellow color mixed with coconut oil. They extract this

> makeup from the root of the curcurma *[sic; Curcuma]* and preserve it in cone-shaped blocks. Sometimes they cover their bodies completely with this coloring, sometimes only in widely separated bands.[21]

Lucatt gave a similar account:

> Male and female are clad alike; they have, according to our ideas, a very disagreeable fashion of lubricating their bodies with a yellow powder made from the root of the tumeric *[sic],* mixed with oil, so that if you enter their houses, or come in contact with their persons, you quickly contract a similar dye, and it requires many ablutions before you can get rid of it; they say they use it as an antidote to the stings of mosquitoes and other insects.[22]

There is much evidence to suggest that *mena* was used ceremonially to mark transitions from one social status to another, e.g., from fetus to baby, single to married, commoner to chief, living to dead. In addition, Gardiner mentioned that warriors smeared their bodies with coconut oil mixed with turmeric before going into battle.[23] The practice seems to suggest a belief that this ointment would protect the surface of the body from intrusion and penetrating injuries, especially the spilling of blood.

Mena reportedly also was used medicinally, mixed with coconut oil, to treat skin diseases, cuts, skin infections, and wounds. According to Will McClatchey, a botanist who researched the production and use of turmeric on Rotuma:

> Introduced diseases such as filariasis, yaws, influenza, cholera and measles were also treated with mena and oil externally in an effort to combat these diseases for which the Rotumans had no traditional remedies or resistance.[24]

The two major forms of Rotuman therapeutic practice mentioned by early observers are cutting and burning, and massage. Bennett's comment that "burning and cutting are the remedies principally used for all their diseases"[25] was qualified by Gardiner, who reported burning as the cure "for all wounds and sores," the practice being "to roast them for several hours in front of a slow fire."[26] The only type of surgery reported was in conjunction with elephantiasis. According to Gardiner, when an affected scrotum became too large, it was lanced with a shark's-tooth lancet, or, using the

same instrument, the scrotum was removed, the operation being performed in front of a huge fire and taking about two days. He also reported that filarial arms and legs were cut down at the surface so the scar tissue would prevent them from swelling further.[27]

The great Rotuman cure for aches and pains was, according to Gardiner, "massage of a very severe nature, either with coconut oil or the oil of the *hifo* nut (Calophyllum inophyllum); usually a small quantity of the second is applied, and then the part rubbed vigorously with coconut oil."[28]

It is apparent that cold water, along with turmeric, coconut oil, and purgatives, was considered to be a central aspect of purification rituals. Thus one of the first Resident Commissioners, H. E. Leefe, reporting on Rotuman birth customs in 1898, wrote that upon birth infants were bathed in cold water and dosed with coconut oil or the milk from the nut, after which they were not washed for as much as a month or more. Leefe stated that the Rotumans "will not hear of the use of hot water in any sickness."[29]

Gardiner also commented on the Rotuman practice of using cold water and asserted that it was only by using threats that he could get people to allow him to use hot water for washing wounds or sores.[30]

The comments of these early visitors suggest that Rotumans had great confidence in their own externally applied medicines and resisted adopting such remedies offered by Europeans, although they were open to taking new forms of *internal* medicines. Thus Bennett reported that "the lotions which I frequently gave them [for ophthalmia]...were seldom or never used, but all internal remedies they took readily and with confidence."[31]

The Rotuman Theory of Health and Illness

According to Rotuman conceptions, the power for causing, preventing, and curing diseases rested with the *'atua.* A person's soul *('ata)* was believed to wander during sleep and if it did not return to the body before wakening, or if it was carried off by an *'atua,* the person would get sick and die. When a person was seriously ill and apparently dying, it was presumed that his soul was wandering and efforts were made to coax it to return. The *'atua* of a recently deceased relative was often called on for advice or assistance in such circumstances.

> Should a man be sick, the most powerful way of curing him was for the parents of a child, which had recently died, to go to its grave and call out for its soul to come out, saying that the kava is all finished. After a time their cries will be heard, and they will pray the child's ghost to go and prevent any other soul from interfering with the sick man's soul, this being in former times thoroughly believed to be the cause of all bad sicknesses and death.[32]

The spirits of prematurely born children who had died were thought to be particularly powerful and trustworthy.[33]

Everyone concerned would gather around the sick person's bed, eagerly seeking signs of the soul's return. The sneezing of an apparently dying person was looked on as an omen of recovery, of the spirit returning to the body. At the first sneeze all in the room would cry *"se fua!"* [don't burst!]. At the second they cry *"ora!"* [better], at the third *"mauri!"* [life].[34]

Spirit mediums *(ape'ạitu)* were also called on to help heal afflicted individuals. Gardiner gave an account of two spirit mediums whose *'atua* appeared in the form of a hammerhead shark *(tanifa):*

> To take the *tanifa,* the god of Maftau: for him there was a priest, termed an *apioiitu,* who officiated on all great occasions, and a priestess, called by the same name, whose business it was to cure sicknesses, and indeed, to see to all minor troubles. For the *apioiitu* was a house of some sort, round which the people were forbidden to sing and dance. Should Maftau be in trouble or be going to war, a big feast would be held, and the best of everything would be placed in the sea for the *tanifa:* a root of kava, a pig, taro, yams, etc., and always a cocoanut leaf. Much, too, would be given to the *apioiitu,* but always uncooked. Presently sounds would be heard from the house in which the *apioiitu* was, and he would come out, smeared with paint, foaming at the mouth, quivering all over, and falling into the most horrible convulsions. He would perhaps seize a *kava tanoa* [kava bowl] and drain its contents, tear a pig in pieces and eat it raw, or take great mouthfuls of uncooked yam, the taste of which is exceedingly fiery. Presently he would fall down in convulsions and speak; he did not speak for himself,

> but the *tanifa,* who was in him, spoke, nor did he remember at all afterwards what he said. For the time he was all-powerful, and, what he told the people, they had to do; but, when he recovered, he was simply one of themselves again. The priestess was, on the other hand, really more a doctress, called in by the present of a pig and a mat. She would get into a frenzy, and so drive the devil which was troubling the person away. At the same time she never failed to give them herbs and other remedies.[35]

Gardiner's account of the healer's role supplemented an earlier report by Lucatt, who observed that in response to sickness, spirit chiefs

> pretend to address the Evil Spirit, and exhort him to cease troubling the persons of the indisposed. Sometimes they will endeavour to propitiate the demon of evil by hanging up green boughs in the house where the sick may be lying, and by assembling all the friends of the afflicted party to a solemn feast when much hog's flesh and kava is consumed at other times, when the complaint is obstinate or of long continuance they will use the most angry threats to scare the evil demon away.[36]

The power to deal with the *'atua,* and hence to heal, was transmitted within families. This was done by teaching a favored descendent the details of ritual and anointing the person with coconut oil. Although some less sociable persons were thought to be able to use their access to supernatural power to harm others, there are no indications that sorcery or witchcraft was either especially feared or widely practiced in the traditional society. *'Atua* responded primarily to propitiation by human beings, or their failure to do so in a proper manner. An ancestral spirit who was properly provided for was a protector to be called on when needed; one who was improperly provided for was apt to show wrath by creating misfortune for the culprits.[37] The power to cure in the traditional medical system was therefore indirect. It depended on the commitments of healers to their ancestral spirits more than the personal powers or qualities inherent in the medicines they used.

Changing Medical Conditions

We cannot be certain when the first epidemics occurred as a consequence of European intrusion, what they were, or what toll they took. The first mention of an epidemic we have been able to find is in the diary of Father Trouillet,[38] who reported being told that during the reign of the eighty-seventh "high chief" Kaunufuek, there was a very bad dysentery epidemic—so bad, in fact, that there were not enough people to bury the dead. He determined the year to be 1861. Trouillet also recorded the first documented epidemic, in 1871. In March of that year dysentery broke out among the Catholics and claimed 16 to 18 lives, subsequently spreading to the Methodists, causing 30 to 40 additional deaths.

Cession marked the beginning of systematic record keeping, including registration of vital events and reports on the health status of the island. The records show that in the first two decades following cession, epidemics continued to plague Rotuma and took a heavy toll. A dysentery epidemic swept the island in 1882, followed by whooping cough in 1884, dengue fever in 1885, influenza in 1891 and 1896, and dysentery again in 1901. Fish poisoning was also reported as reaching epidemic proportions in the years between 1885 and 1887. The crude death rate during this twenty-year period was approximately 46 per thousand, for a population averaging about 2,250 persons.

The prevalent diseases during this era, in addition to epidemic afflictions, were reported as scrofulous sores, yaws, inflammation of the eyes, rheumatism, and elephantiasis. Resident Commissioner William Gordon estimated in 1884 that 10 percent of the population had scrofulous sores "which were allowed to remain uncovered and entirely uncared for."[39] He reported being told that such sores had increased greatly in number in recent years. Gardiner also commented, some twelve years later, that "terrible ulcerations of the skin of the body and limbs, particularly the leg, are not uncommon among adults, especially women."[40] He reported the most prevalent disease to be yaws, but regarded elephantiasis to be the worst disease that adult Rotumans had to contend with, estimating that at least 70 percent of the men and 20 percent of the women over the age of forty had it in a more or less virulent form.[41] Gardiner also confirmed Gordon's observation concerning the prevalence of eye disease, stating that "periodical epidemics of bad eyes

pass over the island; the cornea gets clouded, and sight is considerably impaired....Cases of blindness from this disease are now quite common owing to neglect."[42]

Of central concern to the Resident Commissioners during this period was the high rate of infant mortality. In 1898 Resident Commissioner Leefe reported that 52 of the 90 persons who had died that year were under the age of fifteen. Leefe laid blame for high infant mortality on traditional Rotuman practices associated with birth and a failure to take proper hygienic measures:

> If Rotumans could be induced to wash their children more and not place them in draughts, and if they could be punished for giving medicines which they do not understand the properties of, I feel sure that the mortality would be smaller....I should also urge that the Regulation forbidding suckling women to smoke and drink kava which has been passed by the Rotuman Regulation Board should be approved of by the Legislative Council.[43]

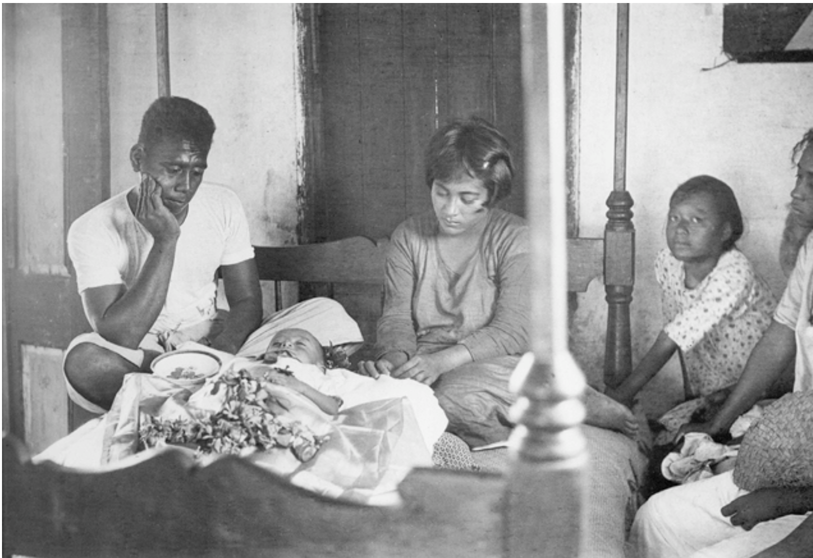


Photo 11.3 Mourning a dead child. *Marist Archives, Rome.*

In discussing the matter at a meeting of the Rotuma Council of Chiefs, Leefe asserted that an additional cause was mothers going out at night, leaving their children in a warm house, then coming back "bitterly cold" to suckle them. He claimed to know of two cases where death ensued shortly after a mother had done this. At the meeting, one Rotuman

chief claimed that women who had been to Fiji had learned to use abortion-producing medicines that were sometimes ineffective but resulted in sickly children. Another suggested that changing infant-feeding customs was partially responsible, asserting that in "the old times" a child was fed entirely on young coconuts during the first few days, whereas "now when a child is born, it has herbal medicines given to it which often makes it sickly."[44]

The contrasting explanations of the Resident Commissioner and the chiefs are of considerable interest. Leefe was pointing at traditional behavior patterns as a source of infant mortality; what was needed, in his view, was the abandonment of Rotuman practices and the adoption of European customs. The chiefs contrarily saw the causes in divergence from traditional practices; what this implied was a need to return to customary purity. Implicit in these views were contrasting theories of causation. To the British colonial administrator, causes for illness were to be sought in material conditions that directly affect the physical organism. To the Rotuman chiefs, it is likely that causes were to be sought in the dispositions of the *'atua.* For Leefe, change was necessary for improvement; for the chiefs, change was threatening because it created discontinuities with one's ancestors, inviting their wrath.

These differing perspectives were manifest in a long sequence of episodes between colonial administrators and the Rotuman people, beginning shortly after cession and carrying on well into the twentieth century. Resistance to medical advice offered by Resident Commissioners was first reported a few months after cession, by Mitchell in 1882, following a dysentery epidemic:

> I had the greatest difficulty at first making the parents keep the flannel belts on their children, who in many cases whenever a child complained of unusual pain in its bowels would remove the belt thinking by this means to relieve the sufferer.
>
> They also expected medicines to cure in one or two doses and when they did not do so ceased to give them. I also experienced considerable difficulty keeping the patients on a proper diet.[45]

Mitchell reported that in Noa'tau, the district in which he was residing, only one dysentery death had occurred in a population of 472 persons; he attributed this low mortality

rate to the fact that he was able to see patients more frequently than in more remote districts. Perhaps this played a part, because the highest toll was in Itu'ti'u, the district farthest removed from the Resident Commissioner's headquarters. In any case, Mitchell stated that the failure of parents in Itu'ti'u to follow his instructions regarding diet, medicines, and the wearing of flannel belts was the chief cause of this difference.

Mitchell's successor, William Gordon, also complained of Rotuman resistance to medical advice, reporting that the response he received to instructions that scrofulous sores be covered was "that it was a good thing to let the flies settle on the wounds, as it cleaned them." He asserted that although medicines were asked for and given, there was no one on the island who had any practical knowledge of medicine.[46]

A. R. Mackay, who succeeded Gordon, was no less irritated than his predecessors at Rotumans' reluctance to follow instructions. He wrote:

> The people seem to be quite helpless in any case of sickness. They are not nearly such good nurses in a sickroom as the Fijians. If they were only to follow the few simple directions I give them perhaps the mortality would not be so disastrous, but I have met with such vexation of spirit in finding that if the remedy I give does not instantly cure it is abandoned and substituted by their own anti-physical *[sic]* nonsense of what they call "sarau," which invariably consists of rubbing the disordered part of the body with the palm of the hand with copious applications of coconut oil.[47]

It seems that Rotuman responses to illness during this period gave the impression of helplessness not only because of resistance to European healing practices, but also because much of their own traditional lore had been lost in transition. During his 1896 visit Gardiner observed that "the Rotuman of the present day is singularly ignorant of even the most elementary medicine and surgery."[48] This he attributed to the fact that previously, when traditional priests were the doctors, medical knowledge was carefully guarded. With the coming of Christianity, Gardiner speculated, the information was so carefully guarded that it was lost. An added factor contributing to the loss of knowledge was the elimination of the role of *ape'ạitu* (spirit mediums), brought about by missionization. During the time of his visit, Gardiner reported that the Roman Catholic priests and the Resident

Commissioner were dispensing medicines, but that if instantaneous cures were not effected, Fijians resident on the island were very generally called in, presumably to administer native cures.[49]

The essence of relations between the Resident Commissioners and the Rotuman people is neatly epitomized in an exchange between Leefe and the chiefs in Council. Leefe had attempted to institute a tax of one shilling per man in order to establish a medicinal supply. The chiefs agreed in council but returned the following month with reports of opposition from the people. Several chiefs said the residents of their districts claimed they were too poor to pay such a tax. The exchange, as reported by Leefe, was as follows:

> R.C.: I am surprised at your reports. I thought the Rotumans had more sense, now I find that you are greater fools than the Fijians, the plea of poverty you put forward is absurd. I have lived 22 years among natives and have never seen a richer race than the Rotumans....the people of Oinafa can afford to buy gravestones and only the other day you spent £30 in passage money and every day you spend several pounds in feeding your pigs. I shall therefore have to report to His Ex that if it had been for dead people, for depopulating the island or for pigs that the money would have been easily forthcoming but for sick or living people you cannot afford it. I am ashamed of you.
>
> Chief A: I have heard some people say that they might pay a shilling and then never get sick.
>
> R.C.: Yes...and they might get sick and others would then pay for their medicines. You are a race of Scotch Jews or rather worse.[50]

What Leefe did not realize, of course, was that while insurance for him meant having medicines on hand, for Rotumans it meant careful propitiation of the *'atua.* Pigs for sacrifice, and elaborate gravestones, were their insurance. Rotumans were prepared to pay their dues, far more than Leefe demanded, but in a different form. From their standpoint, they were simply putting their money where the power was.

The Period of Dr. Macdonald: 1902–1923

The first qualified physician to assume the post of Resident Commissioner was Dr. Hugh Macdonald, who arrived in Rotuma in mid-1902. He served in this capacity until December 1923, and spent a total of sixteen years and eight months on the island, being relieved occasionally for intervals ranging from one to fourteen months.

Looked at as a whole, the mortality figures showed no significant improvement during Macdonald's regime (see table 11.1). The crude death rate for the period was approximately 48 per thousand, slightly higher than for the previous period. This, however, is misleading, for the figures are inflated by the measles epidemic in 1911 that took 335 lives. In the years following the epidemic, from 1912 to 1923, the death rate declined from a rate of about 62 per thousand for the period from 1903 to 1911 (including the measles epidemic) to about 32 per thousand. Infant mortality showed a drop from approximately 270 per thousand during the earlier period to 217 per thousand for the later one. Even with the measles epidemic, therefore, the average population for the entire era dropped only slightly to about 2,200 persons and was permanently on the rise after 1911. Aside from measles, the only epidemics during these years were outbreaks of whooping cough in 1907 and 1914, which took a heavy toll among children. Rotuma's isolation proved an asset in 1918 when the Spanish flu ravaged Fiji and the rest of the world. As a matter of policy, Rotuma was isolated from November 1918 until February 1919; as a result, a potentially devastating sequel to the measles disaster was averted.

In general, the epidemiological situation did not dramatically alter from the period prior to Macdonald's, with skin diseases (including yaws), eye problems, and elephantiasis remaining the scourges that they were in the past.

In one of his first reports, Macdonald, like his predecessors, commented on Rotuman reluctance to follow medical advice. He mentioned that people were not at all backward in seeking advice, but were not careful in following it, often simply tasting medicines and setting them aside if the flavor was not agreeable.[51] They were also quick to discard them and to withdraw from treatment if they did not see immediate improvement in their symptoms. Such behavior must be understood in the light of Rotuman ideas

concerning the causes and cures of illness. Minor ailments, and short-term conditions, were evidently regarded as a normal part of life; their causes were not attributed to supernatural involvement, and thus lotions, tonics, pills, and the like could be used to treat them. The mana required to deal with these ailments was not great, and was readily available; almost everyone, including the Resident Commissioner, was probably thought of as having sufficient power for such purposes.

Table 11.1

Crude Death Rates, 1881–1959

Years	Estimated Population	Death Rate per 1000
1881–1884	2452	45.5
1885–1889	2294	48.6
1890–1894	2219	43.8
1895–1899	2225	40.5
1900–1904	2230	51.7
1905–1909	2340	46.1
1910–1914	2087	81.3
1915–1919	2173	32.2
1920–1924	2357	39.0
1925–1929	2393	45.6
1930–1934	2680	27.3
1935–1939	2758	23.5
1940–1944	2852	23.2
1945–1949	2939	13.0
1950–1954	3049	13.8
1955–1959	3160	8.6

Figures in this table are approximations only; numbers of deaths and population figures are based on available data, which are incomplete. Multiple sources.

When a condition persisted, however, the specter of supernatural causation was raised, and the issue was no longer one of relieving symptoms, but of placating an angry or malicious *'atua.* Because Europeans viewed cures as inherent in medications and techniques, they expected cures to take time and were encouraged when a patient's condition

improved gradually, from critical to merely incapacitating. But for Rotumans, the power to cure serious illness lay with the *'atua* (and later, with God), and thus it was a matter of influencing the *'atua*'s will. If the treatment was effective, the cure should be quick and complete; a mere reduction in symptoms could be interpreted as evidence that the spirit was too determined to take a victim. Despairing, they saw death as inevitable.

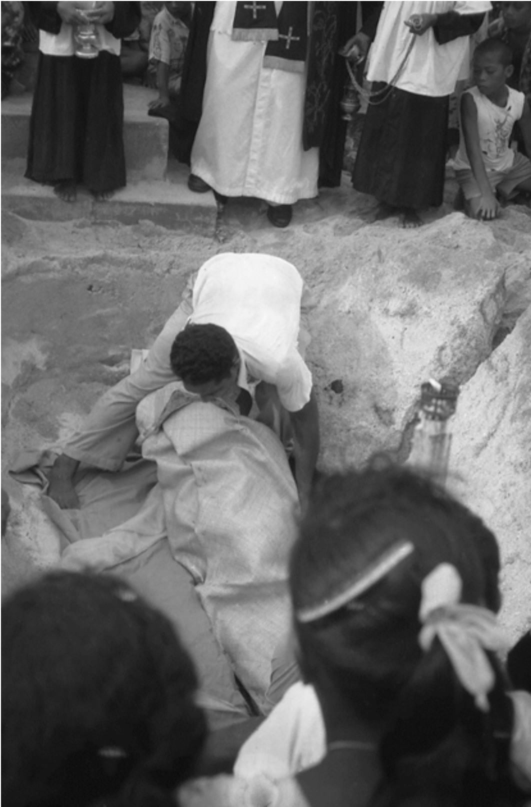


Photo 11.4 Burial of a body wrapped in a fine mat, 1960. *Alan Howard.*

Understanding these ideas can help to explain Rotuman reluctance to resort to hospitalization, which they associated with serious illness. According to Rotuman notions, what was needed under such circumstances was not medicine, but supernatural potency. This could best be tapped in one's home locality, where one's ancestral spirits resided. The comforting of friends and relatives engaged in the common cause of influencing the spirits was more available at home and, no doubt, added to the patient's reluctance to leave it.

But the European medical officers found this reluctance inexplicable, and resistance to helping pay for medical facilities frustrating. Among Dr. Macdonald's first actions was an attempt to increase taxes in order to generate funds for a hospital. His proposals were met with the same kind of resistance that Leefe experienced when trying to inaugurate his one-shilling tax for medicine. Macdonald wrote that Rotumans would like to have medicines and a physician but were not willing to pay for them. He pointed out that the tax would amount to a little over one day's pay and should not give grounds for complaint, "except such as are dictated by their inherent meanness."[52] He insisted that stinginess rather than poverty lay behind this resistance, citing extravagant expenditures for feasts at weddings and funerals as evidence for the availability of resources. Macdonald described the conclusion of this particular strategic battle between district commissioner and the Rotuman people:

> I waited patiently during these months, giving the people every chance to come round to a right way of thinking but in the end was forced to take proceedings against the ringleaders....I gave them a week to pay in and I must say they bluffed up to the last moment; when I was waited on by deputations from the disaffected districts who then expressed their willingness to pay.[53]

Rotumans' acceptance of dispensed medicine was more rapid than their acceptance of the hospital as a location for inpatient treatment. Macdonald reported providing medicine for 509 patients during the first four months of 1903, as much as had been dispensed in the preceding eight months, and by 1910 the outpatient department of the hospital was receiving 4,000 visits per year, an average of nearly 2 visits per person. In contrast, from the time the hospital was opened in May 1903 until 1910 Macdonald reported a meager average of 60 inpatients per year. He continued his struggle for acceptance of the inpatient facilities, but was bucking a tenacious cultural tradition. Macdonald attributed Rotuman reluctance to use inpatient facilities to four factors: (l) the fear of dying away from home and one's friends; (2) the difficulties involved in feeding patients (people tired of bringing food to their relatives and friends in the hospital); (3) opposition to the hospital tax among a segment of the population; and (4) "the novelty of the matter."[54]

The second problem, food, Macdonald attempted to ease by supplying a few articles "such as arrowroot, biscuits, cocoa, tea, milk, sugar, etc." in accordance with the practice of provincial hospitals in Fiji.[55] This did not substantially alleviate the strain on a patient's relatives, however, as Macdonald himself acknowledged in a subsequent communication, for basic subsistence foods still had to be brought in, sometimes over a distance of several miles.[56]

Macdonald's frustration is poignantly expressed in a letter describing the death of a young man on whom he had operated. The man was presumably making good progress toward recovery, but a dream he had was interpreted as an omen of death, leading him to leave the hospital for home, where he might die among family and friends. He succumbed shortly thereafter, although Macdonald was convinced that he would have survived with continued treatment. The letter expressed despair over the Rotuman willingness to accept death as inevitable when patients did not show dramatic improvements following treatment for serious illnesses.[57]

On another occasion Macdonald complained that he quickly dispatched a stretcher for removal to the hospital of a man who had fallen from a tree and been severely injured, only to have hours pass without the patient being delivered. Finally a messenger arrived to say that the injured party would be brought to the hospital later in the day; from him Macdonald extracted the information that the delay was caused by the administration of last rites by the church and by the holding of a Rotuman ritual *(hapagsū)*.[58]

Dr. John Halley, who relieved Macdonald during a fourteen-month period from March 1908 until May 1909, was equally upset by Rotuman stubbornness and continued to pound the message home. Using the Rotuma Council of Chiefs as a forum he made his dissatisfaction known and demanded a change:

> I must again call your attention to the necessity for making more use of the Medical Officer stationed here and of the hospital. As I have on more than one occasion told you, very often the first information I receive about serious sickness among you is after the death of a sick person when some relative appears to register the death. It appears to me that you think a great deal more of your friends after death than during life. You appear to imagine that the correct behavior to your sick ones is to prop them up in bed, call all your friends together, perhaps send for a bottle of medicine,

> and certainly give orders for the preparation of a large feast. To call the Doctor to help to alleviate or cure the sick one is quite your last—if any—thought. Now this must stop.[59]

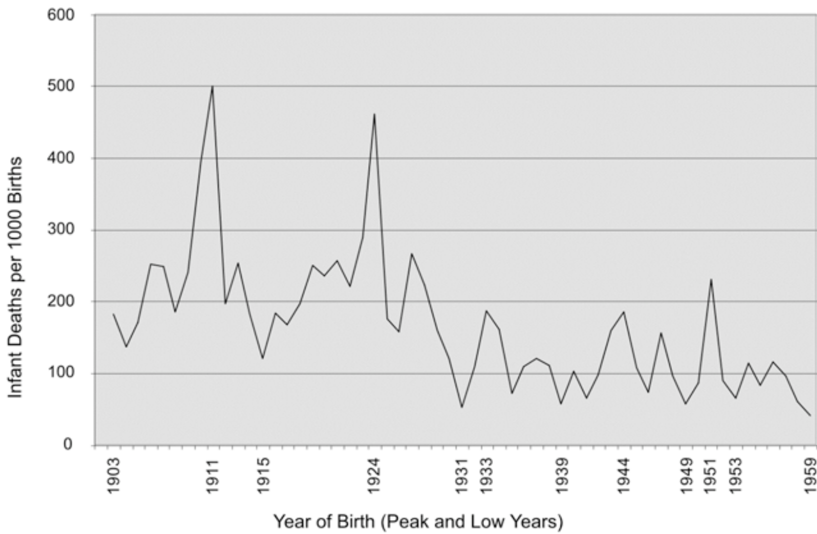
The measles epidemic that struck Rotuma in February 1911 wreaked havoc. From 26 February to 28 June, 401 persons died, 335 from measles. According to Macdonald, deaths were induced mostly by secondary reactions brought on by inappropriate responses to the primary symptoms. He particularly placed blame on indulgence in unsuitable articles of diet such as fruit, which led to ileocolitis, and reported that "parents to satisfy the cravings of their children when sick...will give them anything they cry for, such as oranges, bananas, and other kinds of fruits, although they have been frequently warned not to do so."[60] Our ethnographic evidence, and inference from Rotuman customs, indicate that it was dangerous to be on bad terms with departing spirits. It was safer to indulge patients, thereby placing them (and, by implication, their spirits) under obligation.

The struggle between Resident Commissioners, attempting to impose European medical practices, and Rotumans following their own cultural imperatives, continued with some vigor into the mid-twentieth century, but the former steadily gained ground after the measles epidemic. Inpatient admissions to the hospital rose from an average of 60 per year before the epidemic to over 100 during the next decade, and in the 1920s annual admissions topped 200 several times.

The Period of Child Welfare and Public Health Programs: 1924–1952

In January 1924, Dr. W. K. Carew replaced Macdonald. Carew was an Irish Catholic who, according to the priest at Upu Mission Station, had been obliged to leave Ireland because of the revolution. However, Carew became seriously ill three weeks after his arrival in Rotuma and asked to be transferred; he left in April after serving less than four months. Many Rotumans saw his departure as confirmation of a curse proclaimed by Marafu, chief of Noa'tau and leader of the Methodists in the 1878 war, that a Catholic Resident Commissioner would never be able to stay in Rotuma. A previous confirmation had occurred in 1915 when a Mr.

Farrington arrived to finish his term of foreign service in Rotuma while Dr. Macdonald was on leave. By nightfall of the day of his arrival, he had died. It was therefore with some relief that Catholics witnessed the fifteen-month term of office of Dr. W. Desmond Carew, the 24-year-old son of W. K. Carew. Also, after an interval of two years and four months, in which William Russell was Resident Commissioner, the senior Carew returned to Rotuma and served four years. The curse evidently had lost its power, but the fact that it had "worked" earlier served to validate Rotumans' faith in the potency of their ancestral spirits.



Graph 11.1 Infant mortality rates, 1903–1959. Registry data, Rotuma district office.

This was a period of steadily declining death rates accompanied by a dramatic drop in infant mortality. The crude death rate for the 1920s averaged 38 per thousand; during the 1930s it declined to 23 per thousand, and in the 1940s to 20 per thousand. Infant mortality dropped from 282 per thousand (1920s), to 145 per thousand (1930s), to 103 per thousand (1940s). As a result, the population continued to increase, reaching 3,000 in the 1950s.

Three killer epidemics occurred during the time span, all of whooping cough. They struck the island in 1925, 1934, and 1952 and took a heavy toll among infants and young children (see tables 11.1, 11.2, and graph 11.1).

Table 11.2
Recorded Epidemics

Year	Disease	Source	Comments
1861	Dysentery	Trouillet 1868	"There weren't enought people to bury the dead."
1871	Dysentery	Trouillet 1868	46 to 58 victims
1882	Dysentery	Outward Letters 1882: C. Mitchell	Epidemic affected mostly children; 44 deaths
1884	Whooping Cough	Outward Letters 1884: W. Gordon	
1885	Dengue	Gardiner 1898a, 497	
1885	Fish Poisoning	Eason 1951, 120	
1887	Fish Poisoning	Outward Letters 1888: A. R. Mackay	A continuous condition
1891	Influenza	Eason 1951, 120	
1896	Influenza	Gardiner 1898a, 497	Mild epidemic; 8 mostly old people died from it
1901	Dysentery	Eason 1951, 120	
1907	Whooping Cough	Death Register	37 deaths
1911	Measles	Death Register	401 deaths
1914	Whooping Cough	Death Register	19 deaths
1925	Whooping Cough	Death Register	34 deaths
1928	Influenza	Death Register	43 deaths
1928	Measles	Death Register	5 deaths
1934	Whooping Cough	Death Register	46 deaths
1952	Whooping Cough	Death Register	39 deaths

Despite this dramatic decline in death and infant mortality rates, the old afflictions of yaws, filaria, and skin and eye diseases remained prevalent throughout most of the period. But the battle against these was begun in earnest following a health survey conducted by Dr. S. M. Lambert in 1928. Lambert examined approximately 85 percent of the population. He found 97 percent of children between the ages of two and sixteen had a positive history of yaws; 30 percent of the adults showed some signs of filaria, 67 percent of all persons had scabies, and 18 percent suffered eye afflictions. In addition, examination of a sample of persons over two years old revealed that 73 percent were

infected with hookworm and 57 percent with *Trichocephalous trichiuris* (roundworm). In the conclusion of his report, Lambert asserted that medical conditions on the island were relatively simple, with yaws and hookworm being "outstanding causes of direct and indirect death."[61] He provided treatment for both conditions and recommended concentration on wiping out yaws, suggesting that penalties be imposed for unreported cases.

The Carews were among the least sympathetic commentators on Rotuman character and customs; they wrote harshly of the people's morals ("non-existent"), work habits ("lazy" and "impossible"), and personality ("dour, consequential, and very self-opinionative"). Nevertheless, they were conscientious physicians and made valiant efforts to improve health conditions on the island. Two health issues were salient during this period: infant mortality and sanitation.

The younger Carew attributed the previously high level of infant mortality in part to the "apparent dislike which exists in the mind of the people in calling for the assistance of the obstetric nurse when her services would be valuable."[62] His pet theory was more sociological than medical, however. He focused on the Rotuman custom of fosterage by grandparents, which he felt "makes women careless as to the existence of their families and homes, which, here, results in incontinency; thereby destroying the hope, and perhaps the desire, of a happy home and a large family." He regarded the custom as "contrary to human nature and...conducive to all kinds of trouble."[63] Carew's attempt at a remedy was to force a regulation through the Rotuma Council of Chiefs "to provide for the better security and freedom of marriage and due discharge of parental duties in the Island of Rotuma."[64]

The elder Carew, following his return to Rotuma in 1928, took a somewhat more direct step toward curbing infant and child mortality. In May 1930 he created the position of child welfare nurse and assigned his daughter to the post.

In his medical report for 1930 Carew pointed to the importance of personal relationships between health practitioners and the Rotuman people in effecting change:

> For many years previous to her arrival various Medical Officers stationed here were alert to the conditions that brought about a heavy infantile mortality. Pamphlets in Rotuman language on the care of infants were from time to time issued for distribution amongst the people, and frequent advice given to the mothers on the subject, with poor results. However, the personal factor

of village-to-village visits and inspection of children, as in the present movement, has in a short period brought about a vast improvement. The mothers now respond eagerly and seldom is one missing from the roll-call on the day scheduled for inspection. They seem interested, and accept freely the advice and directions given for their infants' welfare, and whilst occasional deaths do occur—mainly from broncho-pneumonia—the general condition of the infants and young children is so improved that one cannot but be impressed with the movement.[65]

Photo 11.5 Child welfare nurse. © *Fiji Museum.*

Subsequent Resident Commissioners continued the program with the assistance of the Catholic nuns at the two mission stations.

Carew Sr. was also convinced that an improvement in sanitary conditions would have a beneficial effect. (He was not the first commissioner to show a concern for sanitation; as early as 1884, William Gordon raised an issue concerning burial practices and their possible health consequences. Gordon pointed out in council that many graveyards were very close to houses in which people were living; the chiefs acknowledged that according to custom nearly every family had its own burial ground, often close to their houses, and in some cases actually buried the dead beneath the earth floors of their homes.)[66] For Carew, however, the issue focused on the pig population of the island. In 1928 Lambert estimated that there were close to 4,000 pigs on Rotuma; Carew placed the count at 5,000. Since before cession Rotumans had kept pigs out of the villages by a stone fence circumscribing the entire island, and Lambert noted that "a stench arises from this huge sty which is offensive when the breeze is right."[67] Lambert also conceded that pigs were a prolific source of the flies that transmitted eye disease, but he was undecided as to the significance of the pigs as a health hazard. In his opinion the extinction of pigs would mean the loss of fresh meat and fresh animal fat with its vitamin A content, as the people would probably turn to tinned meat and tinned fish.[68]

Carew was much less equivocal. To him the pigs were a health hazard pure and simple, and he determined to get rid of them. Pigs existed on Rotuma, he wrote, only "for the purpose of wanton waste at feasts."[69] On grounds of "hygiene and public health," Carew passed a regulation restricting the number of pigs and requiring more attention to the repair of fences, cleanliness, and the like. As a result, the Rotumans killed or consumed most of the animals. In his medical report for 1930, Carew reported that only 29 large and 33 small pigs remained. The lands used previously for the pigs were being used as food gardens, he wrote, "with much benefit to the general health."[70]

The 1920s were also notable for improved transport, with accompanying impacts on health practices. About 1924 the first motor vehicles were imported into Rotuma, and by 1927 the road had been improved to make all the villages accessible. This made it possible for people to get to the hospital more quickly and for the native medical practitioner to make regular rounds. However, since there were no

telephone facilities (indeed there were none until the 1990s, although the first discussion of the possibility of installing some occurred in a 1924 meeting of the Rotuma Council of Chiefs), the delivery of medical services, although vastly improved, remained less than optimal.

Photo 11.6 Fr. Griffon driving early vehicle, ca. 1920s. *Marist Archives, Rome.*

Communication with the outside world was vastly improved in the latter part of 1933 with the inauguration of a wireless station. This made it possible for supplies, including medical supplies, to be ordered until such time as a ship left Fiji for Rotuma, whereas previously a letter had to be written and sent on one ship with a wait until the next one arrived, often involving a period of many months. In the 1930s long delays were usual, for the Great Depression resulted in a sharp drop in the copra market, and few boats were willing to make the trip to remote places, such as Rotuma, to pick up the output.

During the late 1930s, there was continued emphasis on reducing infant and child mortality, with particular attention to ridding the island of yaws and other serious skin diseases. During this period, the first native medical practitioner (NMP), Jione Fatiaki, a Rotuman, was appointed to the

island. Fatiaki, who was given the paramount title of Maraf in the district of Noa'tau, served as the main medical officer on Rotuma from the time Carew left early in 1932 until March 1940, when he was replaced by Ieni Semantafa (also a Rotuman). A second Rotuman native medical practitioner, W. Fonmoa, was appointed to assist Fatiaki in September 1939. In addition, during the late 1930s several Rotuman native obstetric nurses, including Marieta Mataere, Mary Solomone, and Tipo Jieni, served on the island. The District Officer during the late 1930s, A. E. Cornish, was full of praise for the Rotuman personnel who were responsible for the health of the island in the absence of a European medical officer. He described them as "painstaking, diligent and very attentive to their duties,"[71]

Working for the most part without European professional guidance, Fatiaki continued the program of arsenical injections for yaws, but apparently with little effect.[72] According to Dr. Evans, who first visited Rotuma in 1940, the arsenical dosages given were hopelessly inadequate and unsystematic, although up to 1,000 doses were given in one year. The figures for year-end inspections from 1935 to 1939 actually showed a rising incidence of yaws, and only a slight decrease in impetigo.

In October 1939 a Dr. Macpherson visited Rotuma and conducted a health survey in which he personally examined every man, woman, and child on the island. His report shows that conditions had not changed greatly with regard to prevalent diseases since Lambert's visit eleven years before. His comments on sanitation, however, suggest that although improvements were still needed, particularly with regard to latrines, significant progress had been made in some areas. He specifically pointed to the reduction in the pig population engineered by Carew as responsible for sanitary improvement.[73]

When NMP Fonmoa arrived in Rotuma, he helped to systematize arsenical treatment for yaws, apparently with good effect, for the prevalence of the disease, as measured by the annual year-end inspections, declined dramatically. Within two years, the prevalence of yaws fell from 25.6 percent to 1.6 percent, and impetigo among preschool and school-aged children examined fell from 6.8 percent to 1.6 percent. However, following his visit to the island for three months at the end of 1940, Dr. Evans conjectured that Rotuman attitudes toward the injections were less a "rational therapeutic measure" than "a traditional practice of hopeful

witchcraft."[74] Evans also noted that people were still reluctant to enter the hospital, an observation confirmed by NMP Fonmoa.

Throughout the 1940s and 1950s, the child-welfare program continued to occupy a central place in the public health regime on Rotuma. A district nurse was appointed whose primary responsibility was to carry out the program, and she received assistance from some of the Catholic nuns and, later, from child-welfare helpers appointed by village chiefs. Significantly, it became customary for first births to take place in the hospital, while subsequent births were either attended at home by a nurse or at the hospital.

This period is in marked contrast to those before with regard to Rotuman acceptance of major medical reforms. The child-welfare program was adopted with apparent enthusiasm, and, if sanitation measures were not welcomed wholeheartedly, they were not seriously resisted. The success of these measures simply required Rotumans to build latrines, clean up areas designated as unsanitary, receive the district nurse when she came to their village, and follow some prescribed routines. In these matters they were prepared to comply with the secular authority of the government administrator. They were even prepared to drastically reduce their pig population—probably so long as they had enough available for ritual purposes when needed. They were also willing to go to the hospital for first births, despite costs—births did not involve placating *'atua.*

But significant resistance to medical treatment by western practitioners continued, as indicated by the periodic complaints of Resident Commissioners and District Officers that people did not make proper use of available staff or facilities. And as Dr. Evans implied, their willingness to receive treatment was based less on western than on traditional Rotuman assumptions. Still, it is apparent that by mid-century Rotumans were far more engaged with the European medical system than they were when the twentieth century began.

The Achievement of Medical Modernity: 1953–1960

The last major killer epidemic of whooping cough occurred in 1952, during which 83 children under the age of ten years died. It was the first year in residence of Fatiaki Taukäve, a young Rotuman assistant medical officer. Despite his initial

discouragement, brought about by his helplessness in facing the epidemic, Taukäve proved to be an active and innovative official.

In 1953, with the help of the District Officer, Taukäve persuaded the chiefs to arrange for an "Annual Baby Show" and to collect money to buy prizes for the healthiest babies and winning mothers. Individual district shows were held in November, and all the prizewinning babies and children were brought together at the hospital in December for the main show. The district with the most points was ceremonially presented a trophy cup. The idea caught on immediately and aroused a great deal of interest in modern baby care on the part of mothers.

Photo 11.7 Prizewinning baby, 1960. *Alan Howard.*

Taukäve also requested passage of a regulation by the Rotuma Council of Chiefs aimed at improving sanitation on the island. The regulation required all able-bodied adults to spend four hours a week cleaning and weeding their villages. Dwelling houses were required to have an adequate latrine under penalty of law, and village inspections were to be carried out weekly. Taukäve reported that the fly and mosquito populations were greatly reduced by these measures and village cleanliness greatly improved. Although a mild epidemic of gastric influenza struck the island in 1953, the crude death rate dropped to 14.4 per thousand (see tables 11.1 and 11.2).

Ieni Semantafa was reassigned to Rotuma and replaced Taukäve as assistant medical officer from 1954 to 1956. Semantafa continued the programs initiated by his predecessor with considerable success, and with the help of newly introduced wonder drugs, yaws was virtually eliminated. The year-end inspection in 1956 revealed only one active case of the disease. Taukäve returned in 1957 and during the following two years, under his skillful and dedicated guidance, the crude death rate dropped to lows of 7.9 and 5.1 per thousand.

Several factors seem to have contributed to Rotuma's dramatic mortality decrease during the late 1950s. Better infant care and improved sanitation undoubtedly played a part, although there was still room for improvement. More important were the expansion of the medical staff and the greater range of skills available. In 1952 the newly appointed Taukäve was assisted by only two staff nurses; in 1959 the same man, considerably more experienced, could rely on support from six full-time staff nurses, one full-time district nurse and another working three days a week, an ambulance driver trained as a dresser, and five laymen who helped run the hospital.

But most important of all was the availability of more potent drugs, particularly penicillin and other antibiotics. Not only did these "wonder drugs" eliminate yaws and stave off other infections, they also cured ailments in such a dramatic fashion that there could be little doubt about their inherent potency. Whereas previous medicines and treatments had been slow enough to allow observers to attribute curative power to external agencies such as the *'atua,* the wonder drugs forced Rotumans to acknowledge the basic premise of western medicine—that the power to cure at least certain conditions is inherent in the material aspects of treatment. Rotumans did not abandon their own premises, but rather pushed them farther to the margins of their now expanded medical system.

Against this historical background one can better understand why *sarao* (ritual massage) is the main form of Rotuman folk medicine that has survived. The persistence of *sarao* is an indication that even with the wonder drugs, western medicine did not satisfactorily alleviate the stresses of illness for Rotumans. The main source of anxiety that illness posed for Rotumans is, we would argue, the vulnerability imposed by social and economic dependency.

Any persistent condition that threatened incapacitation tended to be treated as a social rather than an individual matter. When an illness was exposed, it seems, an implicit message was communicated to all those with obligations to the victim that he or she might have to depend on them for a period of time. This threat of imbalanced obligations amounted to a social test and was a source of anxiety for the ill person. In response, he or she was likely to be visited by a stream of kin, friends, and neighbors. The visits may be seen as a mechanism of social reassurance; they contained an implicit pledge of support on the part of visitor to patient.

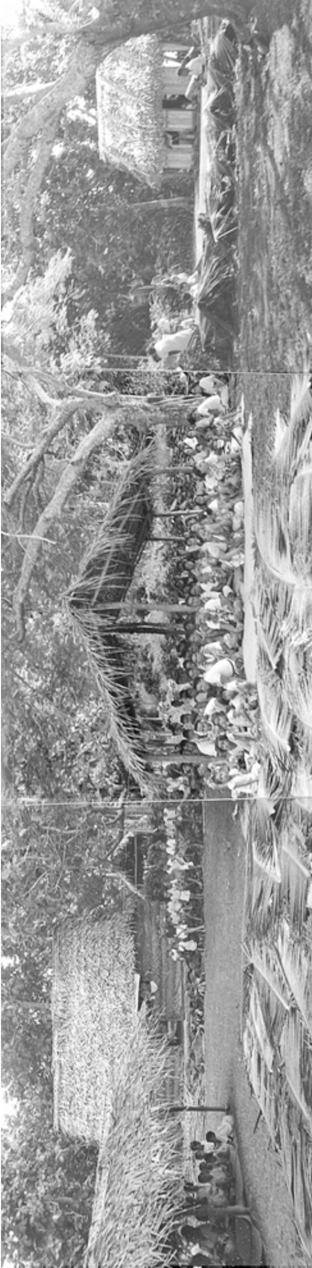
Within this context, massaging can be viewed as a powerful social message. It was a form of reassurance used by parents with children, and was rooted in a socialization process that placed a premium on touch. In normal social intercourse intimacy, concern, and commitment were expressed as much, or more, through touching as through any other medium of communication. As therapy, therefore, massage constituted a reaffirmation of relationship to socially vulnerable persons. When performed by family members or others close to the victim, it was a personal affirmation; when performed by a recognized specialist, with greater attendant ritual, it constituted an affirmation of support by the community.

Such an explanation, based on the fulfillment of psychosocial needs, would account for only part of the form *sarao* takes. It may help to explain why massage rather than some other physical or mechanical operation was employed, but it does not account for the central concern with mana, and the use of ritual forms designed to tap it. To explain this we must move to a cultural level.

We would argue that the practice of *sarao* was one of the primary means by which Rotumans maintained an active relationship with their ancestors. By attributing to the *'atua* the power to heal, they symbolized the potency of their forefathers. In so doing, they affirmed their own worth as human beings and their heritage as Rotumans. For in the Polynesian tradition, a person's potency, his or her status as a human being, is regarded primarily as a matter of genealogical inheritance.[75] If one's ancestors were impotent, and had little social worth, then by implication one is also impotent and socially insignificant. Even in the face of European domination, Rotumans were not prepared to accept such a social assignment.

Rotuman resistance to European medical innovations must be understood in this light. Attacks on their medical ideas and practices were indirect attacks on their integrity as a people—on their collective worth. Had they succumbed to the pressures of colonial administrators to abandon their customary approach to healing they would have been symbolically denying the validity of their heritage and their efficacy as a people. Rotumans tell many stories that affirm the opposite. They tell of ancestors who were gigantic and powerful. They tell of the apprehensions of Ratu Sir Lala Sukuna, the great Fijian chief, when he visited Rotuma. According to the story, he left the island in panic after a brief visit, exclaiming that the power of Rotuma was too much for him to bear. The power of the island is the power of the *'atua,* of the ancestors. The conflict over medical ideas and practices can therefore be understood as an attempt by Rotumans to preserve their sense of potency as a people in response to the application of secular political power by colonial administrators. With the smallpox vaccinations in 1908, Rotumans feared they were being marked as subjects of England; they preferred instead to rely on their ancestors to keep them safe and well. This, then, was another way that they strove to maintain their autonomy as a people.

Although it could be argued that traditional Rotuman medical ideas and practices were somewhat maladaptive in regard to their consequences for immediate physical health, it should be clear that as adaptive strategies they aimed at alleviating a much wider range of stresses than merely physical ones. Assessing their effectiveness as strategies to ensure well-being—psychological, social, and cultural, in addition to physical—requires a more complex set of criteria than indices of mortality and morbidity alone.



Photos 11.8–9 Scenes from a wedding. Note dignitaries seated in chairs facing the dancers, 1940. *H. S. Evans.*

Notes to Chapter 11

The medical history of Rotuma contained in Chapter 11 draws heavily on "The Power to Heal in Colonial Rotuma," which was published in the *Journal of the Polynesian Society* (Howard 1979), while our analysis of demographic changes prior to Fiji's independence stems mostly from "Rotuma as a Hinterland Community," which also appeared in the *Journal of the Polynesian Society* (Howard 1961).

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[1] Tromelin 1829, 42.

[2] Lucatt 1851, 158.

[3] Gardiner 1898a, 497.

[4] Quoted in Eason 1951, 122.

[5] Quoted in Eason 1951, 122–123.

[6] The birth records were kept by Resident Commissioners, and often included parents' ethnicity or country of origin. We include in our category of "mixed ancestry" all instances where one parent is European, part-European, or from another Pacific Island. The extraordinarily high death rate reflects the toll taken by several epidemics, including the measles epidemic of 1911, which took a heavy toll on children.

[7] Methodist Church of Australasia, *Wesleyan Missionary Notices,* no. 5, Vol. 11 (April 1868).

[8] Outward Letters, 4 December 1879.

[9] Outward Letters, 4 December 1879.

[10] Outward Letters, 4 December 1879.

[11] Outward Letters, 10 January 1887.

[12] Outward Letters, 1 October 1881.

[13] Lesson 1838, 420; translated from the French by Ella Wiswell.

[14] Lesson 1838, 428

[15] Bennett 1831, 475–476.

[16] Lucatt 1851, 168.

[17] Lucatt 1851, 168.

[18] Gardiner 1898a, 492. Note that Lesson reported seeing several men with skin lesions that may well have been yaws in 1824 (1838, 427–428). However, the fact that Bennett did not mention skin diseases in 1830 suggests that it was not a significant problem at that time, and may well have intensified with increased contact with Europeans.

[19] Gardiner 1898a, 494.

[20] Gardiner 1898a, 410

[21] Lesson 1838–1839, 421.

[22] Lucatt 1851, 158.

[23] Gardiner 1898, 471.

[24] See McClatchey 1993 for an account of the preparation and medicinal uses of turmeric on Rotuma.

[25] Bennett 1831, 475.

[26] Gardiner 1898, 492.

[27] Gardiner 1898, 495.

[28] Gardiner 1898, 492.

[29] Dispatch dated 3 October 1898. Outward Letters.

[30] Gardiner 1898, 492.

[31] Bennett 1831, 476.

[32] Gardiner 1898, 469.

[33] Churchward 1939, 470.

[34] Russell 1942, 251.

[35] Gardiner 1898, 468.

[36] Lucatt 1851, 161.

[37] Gardiner 1898, 466.

[38] Historique de la Station Notre Dame de Victoires 1949.

[39] Outward Letters, 9 June 1884.

[40] Gardiner 1898a, 493.

[41] Gardiner 1898a, 492, 494–495.

[42] Gardiner 1898a, 495.

[43] Outward Letters, 14 January 1899.

[44] Minutes of the Rotuma Council, 5 May 1898.

[45] Outward Letters, 15 April 1882.

[46] Outward Letters, 9 June 1884.

[47] Outward Letters, 4 November 1885.

[48] Gardiner 1898a, 491.

[49] Gardiner 1898a, 491–492.

[50] Minutes of the Rotuma Council, 9 November 1893.

[51] Outward Letters, 26 July 1902.

[52] Outward Letters, 14 August 1902.

[53] Outward Letters, 7 June 1904.

[54] Outward Letters, 2 September 1903.

[55] Outward Letters, 7 June 1904.

[56] Outward Letters, 9 July 1911.

[57] Outward Letters, 27 July 1906.

[58] See Inia 2001, 109–114.

[59] Minutes of the Rotuma Council, 7 January 1909.

[60] Outward Letters, 30 April 1911.

[61] Lambert 1929, 14.

[62] Outward Letters, 1 January 1925.

[63] Outward Letters, 1 January 1925.

[64] Rotuma Regulation No. 2 of 1925

[65] Annual Report for 1930. Fiji Medical Department Records.

[66] Minutes of the Rotuma Council, 7 August 1884.

[67] Lambert 1929, 14.

[68] Lambert 1929, 13.

[69] Outward Letters, Annual Report for 1928.

[70] Outward Letters, 26 February 1931.

[71] Outward Letters, Annual Report for 1940

[72] The next physician to act as the administrative officer was Dr. H. S. Evans, who served from December 1949 to January 1952.

[73] Health Survey of Rotuma, 1939. Fiji Medical Department Records.

[74] Evans n.d.

[75] Goldman 1970, chapter 1.