Where Shall John Go?

Solomon Islands

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For the young graduate in search of good all-round experience, a tour in the Solomon Islands is most rewarding. Specialists and long-serving officers employed by the Government are anxious to teach and give all possible help to the newly arrived doctor. In the long term there are no career prospects as such, although appointment committees in Britain are now looking more favourably on candidates who have served some time in the so-called "developing world." For those interested in research there is much of interest and a wealth of material, although it will certainly be an arduous and frustrating task collecting all the necessary data. Despite such problems, in the last decade six MD theses have been accepted by British universities on work done by the small number of medical officers serving in the Solomon Islands.

This picturesque part of the south-west Pacific consists of an archipelago (a mere 30 000 sq km in a vast sea) stretching about 1500 km south-east of Papua New Guinea. The six major islands are of volcanic origin, average 170 km by 40 km, and are covered with tropical rain forest. This central chain is bounded by much smaller islands and coral atolls. For administrative purposes, the territory is divided into districts. Honiara, the capital, with a population of some 20 000 is on the coast of Guadalcanal Island—famous for its battle during the second world war—and is about 2000 km north-north-east of Brisbane, Australia. The climate is equatorial with a temperature varying between 33°C and 20°C, and an average relative humidity rarely below 80%.

The people

With a total of about 200 000 people the islands are sparsely populated. The Melanesians (accounting for over 90%), together with the Polynesians, who inhabit the outlying atolls, are the indigenous races. The others are recently settled Micronesians, Chinese (mostly in commerce), and about 1200 expatriates of European stock. The indigenes, who are a friendly and generally contented people, live in small scattered villages around the coasts, although on the large islands there are also villages in the hills. Most follow a traditional village way of life, with every family growing its own food and building its own leaf house. As coconuts abound, root crops are easily grown, and fish is plentiful, people rarely go hungry. Village life revolves around the church, each day beginning and ending with prayers. The church is generally used as a meeting house, and much of the village business is conducted there. This building often provides welcome and comfortable overnight accommodation

for the touring medical officer, although he must expect an early awakening when the drum summons the villagers to prayers. In such a setting, life is leisurely and carefree, except when interrupted by illness. Most villagers who work temporarily usually do so to pay tax and education fees and, increasingly, to provide some luxury such as an outboard motor for a canoe, a guitar, or a radio. Young men of marriageable age, however, traditionally leave their villages for a few years to earn enough money to pay a bride price and obtain building materials for a leaf house. Village entertainment is centred on storytelling, singing, dancing, and feasting.

Organisation of medical services

The islands' medical needs are met primarily by the Government, supplemented by the church, and, on occasions, by the commercial sector. There are no full-time private practitioners working in the Solomons and it seems unlikely that there will be scope for any in the foreseeable future.

The government service is under the control of the Minister of Health, whose appointment is political. He is advised by a permanent secretary and an under-secretary of health, both of whom are civil servants, and one of whom must be medically qualified. The day-to-day working of the service is under the care of two medical officers, one of whom maintains hospital services while the other controls primary health care and public health needs.

The Central Hospital in Honiara acts as the referral hospital for the entire service as well as catering for the needs of the local district. This hospital on the seafront dates back to the second world war, but it has been continuously modernised to become a more than adequate 200-bedded hospital. Specialist advice and care are available in medicine, surgery, obstetrics, and paediatrics. There is a first-class nursing school in Honiara which trains local men and women for service throughout the islands, which results in good nursing in the hospitals and sound health care in the rural areas. Outside the capital there are a further three district hospitals, all of which, being less than 25 years old, are of modern design. These hospitals, together with three smaller rural hospitals in more isolated areas, provide care for the entire island group. Scattered throughout the islands are 60 rural health clinics, each staffed by two nurses, so that basic medical needs are accessible to everyone.

Church and commercial medical work

Four Christian denominations (Anglican, Methodist, Roman Catholic, and Seventh Day Adventist) each provide a hospital, but because of staff shortages they often have difficulty in fulfilling their medical aspirations. They are thus confined more to curative medicine than to public health programmes.

One multinational company with large interests in the Solomons employs a medical officer who is responsible for the health of that company's employees. Other commercial firms have

employed medical officers in the past and it is possible that they, or others, may do so in the future.

There are three sources of recruitment of medical officers. Firstly, Solomon Islanders, graduates of the Fiji School of Medicine and the University of Papua New Guinea form the backbone of the medical service—principally because their entire professional life is spent in the islands. Secondly, other Pacific islanders, usually Fijians with similar training, occasionally practise in the Solomon Islands under contract. Thirdly, the remaining medical graduates are recruited from the United Kingdom and occasionally from New Zealand and Australia.

The disease pattern

With adequate food available, nutritional diseases are rare. Many of the diseases are similar to those in Britain, although these are often more advanced when the patient is first seen.

This area of the Pacific is fortunate in that many of the diseases which ravage other parts of the tropics do not occur. Although malaria is still relatively common, the World Health Organisation—in conjunction with the Government—is at present attempting to eradicate the disease, as it did yaws in the 1950s. Tuberculosis, which is more common among the Polynesians than the Melanesians, remains one of the major public health problems, while the incidence of leprosy is well under 1%. Filariasis is seen, but as the vector is the same as that for malaria it is hoped that this disease too will be eradicated in the not-too-distant future. Since the 1920s numerous unsuccessful attempts have been made to eradicate hookworm. Epidemic poliomyelitis was once a scourge and, although residual deformity is common, acute cases are rare as an active vaccination programme has been in operation for over a decade.

Medical practice in Government service

When a newly recruited expatriate medical officer, inexperienced in working in a developing country, arrives he is posted to the Central Hospital, where he is introduced to the national medical plan and its implementation: here he will see how patients are looked after in the comparative isolation of a district hospital, and will appreciate local public health problems. After this initial orientation he is given a permanent posting. A few will remain at the Central Hospital—often helping one of the specialists—but most will be posted to one of the districts. All such postings are based at the district hospital, where two or more medical officers share the hospital and community health care of the area they serve.

The principal attraction of work in the districts is the wide variety of medical practice. All the routine hospital emergencies must be dealt with locally, but advice can always be sought by radiotelephone from the specialists in the capital. For financial reasons, only the patients with the more complicated illnesses are flown to the Central Hospital. The policy has been for specialists to pay routine visits to the district hospitals to offer them help, and keep them in touch with headquarters' staff. Where in the United Kingdom today would a doctor have the opportunity of reducing a fracture, giving an anaesthetic, performing a forceps delivery, and possibly treating a case of miliary tuberculosis all in one day?

To the district medical officer the routine touring is one of the most exciting and challenging aspects of his work. One week every month is spent visiting villages and rural health clinics in a specific part of his district, usually travelling by small government ship, by canoe, or on foot. Arduous and frustrating as such touring may often seem, the work may be very satisfying. A doctor who is hardworking and enthusiastic is assured of a warm welcome at each village and clinic, and anything he can do to help will certainly be appreciated. Subject to accommodation being available the Government officers may take their families with them when travelling by ship. I can think of no greater

reward for a long, hard day's work than to be at anchor in a bay on a small ship, sipping a cold beer, and watching the sun setting over an idyllic south sea island.

Except for the more senior staff, officers usually change posts after a year or 18 months, with the result that most doctors have the opportunity of seeing a great deal of the Solomon Islands.

Living conditions

Accommodation, together with basic furniture, is provided for Government officers. Most dwellings are modern, well-ventilated, concrete bungalows which, although not air-conditioned, have mosquito-proofed bedrooms. All are provided with a cooker and a refrigerator and, except in the rural areas, there is electricity all the time. Rent is about \$A100 a month for a house of similar or better standard than the doctor had in Britain. All houses have gardens, many of which are very attractive with brightly coloured hibiscus, frangipani, and Bougainvillea. It is customary to employ help in both house and garden.

Local food, readily available and comparatively cheap, includes fish, rice, beef, a variety of vegetables, and delicious fruit—pineapples, bananas, citrus fruit, and paw paw. Imported food is usually obtainable but is expensive. There is a cold store in the capital and self-service shops which, as well as serving the town, undertake to meet orders from the district stations.

General household goods are obtainable in the supermarkets, or the many Chinese stores. Alcohol is readily available, spirits being somewhat cheaper than in Britain, but beer—because of its bulk—costs about the same as in Britain.

Clothes and shoes are scarce so it is advisable to take enough of these, and a woman should take her sewing machine with her. The islanders are well known for their wooden carvings with mother-of-pearl shell inlay, and many fine curios can be bought. The currency at present is Australian dollars and there are international banking facilities.

The language of Government and commerce is English, but over 60 languages and dialects are spoken by this small population and no one language will carry a man far. Pidgin English, therefore, is the language of everyday communication and is easily learnt.

A car is essential for Honiara residents as public transport is limited: they are expensive, but maintain a good secondhand value. On district stations a car is rarely necessary—and indeed on some it may be a liability as it will have to be taken there by sea, and maintenance can be difficult. The more versatile motorcycle is becoming popular both in the capital and on district stations.

Schools

Honiara has a good primary school which prepares children for secondary education in Britain, Australia, or New Zealand. On district stations education can be a problem as the schools there naturally cater solely for the needs of the island children. Secondary education is not available, but a generous allowance is made for boarding-school tuition overseas. The British Government pays fares for children to spend up to three holidays a year with their parents in the Solomons.

Leisure

Being rather a backwater, Honiara has simple leisure-time activities and much entertainment is generated among small groups with common interests. The capital and each district station have a club which tends to be the social centre. These clubs put on regular functions, including dancing and film shows. In Honiara the clubs provide tennis, bowls, swimming, sailing, and golf on an 18-hole course. For the more energetic

there is soccer, rugby, cricket, boxing, and athletics—sports in which the Solomon Islanders participate with great enthusiasm. Much entertaining is done at home, though it is possible to go out for a meal in the capital. The Solomons have much to offer natural history lovers. There are at least 148 different birds and several species of large, exotic butterfly. Collecting shells is probably the most popular pastime; the best shells are found by scuba divers, but there is some risk of meeting unfriendly sharks. A good radio is advisable if one wishes to tune in to the BBC Overseas Service, but there is a local radio station broadcasting in English.

There is something for everyone to do in their leisure from amateur dramatics to helping with local philanthropic societies such as the Red Cross. An excellent library in the capital as well as serving the surrounding population, also dispatches books to outstations. For those interested in reading about the Solomons the best recent book is *The Solomon Islands* by Janet Kent,¹ published in the Island Series. For the older books written at the turn of the century I suggest *The Solomon Islands and their Natives* by H B Guppy,² himself a medical practitioner, and *A Naturalist among the Headhunters* by C M Woodford,³ the first resident commissioner of the Solomons.

Terms of service

Government officers are recruited through the Ministry of Overseas Development on two- or three-year contracts. The latter have the added attraction of mid-tour leave to Britain. Permanent and pensionable posts are no longer offered to expatriates. For the general medical officer salaries are \$A4500–6000 a year, on which local income tax—which is very much less than the UK rate—is payable. In addition, the British Government pays an annual tax-free supplement varying between \$A3500 and 5000 according to marital state and basic salary. Leave is five days a month on a two-year tour and six days a month on a three-year tour. An added bonus is round-the-world travel for those contemplating a second tour.

Should children with verrucae be excluded from swimming pools?

This classic of medical mindlessness has been perpetuated by an enthusiastic laity oblivious of the price of prophylactic perfectionism. The answer to the question depends on (a) clear evidence that swimming baths are an important source of infection and (b) the balance between the misery caused to children by verrucae, on the one hand, and by their banishment from aquatic pleasures, on the other (and with the treatment of verrucae as poor as it is, this may easily wreck a summer's swimming season). The evidence on (a) is poor and it is not really known how much the incidence of warts might be reduced by clearing the pools of warty feet. This could probably be discovered more easily than whether prevention of warts by exclusion causes more misery than having them. In the absence of these answers the question surely is "why should children with verrucae be excluded from swimming pools?" In my view, they shouldn't.

What is the difference between alpha-blockers and vasodilator drugs? If there is any difference, does it matter clinically, especially in the treatment of peripheral vascular disease?

Both alpha-receptor-blocking drugs and beta-11-receptor-stimulating drugs cause a selective vasodilatation. Other vasodilator drugs act unselectively directly on vascular smooth muscle to reduce its tone. Alpha-receptor-blocking drugs exert a competitive block at the alpha-receptor site causing vasodilatation of arterioles in the skin and splanchnic area. Examples are phenoxybenzamine and phentolamine. Alpha-receptor-blocking drugs have only occasional use in clinical medicine. Phenoxybenzamine is mainly used to block the alpha-receptor-stimulating effects of catecholamines in patients with

Church medical services

The general pattern of work is similar to that of Government service, although more hospital-orientated on mission stations. Each denomination recruits its own staff and customarily appoints people sympathetic to the work of the church. Despite often limited facilities, these hospitals are an integral part of the national health plan and offer a most useful service. Such work may be very satisfying, although remuneration is less, and living conditions tend to be more spartan than in the Government sector.

Conclusion

To the young graduate, and indeed the more experienced physician looking for a change, a tour in the Solomons has a lot to recommend it. The working day, however, is usually long and indeed often frustrating, but the satisfaction gained in helping to improve the health of an appreciative people more than compensates for these inconveniences. In these days of hyperspecialisation such appointments must be among the last in which the British graduate is able to practise all the basic arts of medicine, and, so long as he does not stay there too long, must be the better for the experience. Further information about Solomon Island and other such appointments may be had from the Appointments Officer, Ministry of Overseas Development, London, and up-to-date information can always be obtained from the *Annual Reports*.⁴

References

- ¹ Kent, Janet, *The Solomon Islands—Island Series*. Newton Abbot, David and Charles, 1972.
- ² Guppy, H B, *The Solomon Islands and their Natives*. London, Swan, Sonnenschein, Lowry & Co, 1887.
- ³ Woodford, C M, *A Naturalist among the Headhunters*. London, George Philip & Son, 1890.
- ⁴ *Solomon Islands Annual Report*, London, HMSO.

phaeochromocytoma. Beta-11-receptor-stimulating drugs (such as salbutamol and terbutaline) induce bronchial relaxation and a vasodilatation of arterioles in skeletal muscle and are mainly used for their effect on the bronchioles, but salbutamol may be used to treat left ventricular failure, which it relieves by reducing left ventricular pressure work.

Other vasodilator drugs act unselectively directly on vascular smooth muscle to reduce its tone. Certain of these drugs are used to reduce high blood pressure and act mainly on the arterial wall. These include hydralazine and minoxidil. Other directly acting vasodilator drugs act mainly on the great veins. These are the organic nitrates, such as glyceryl trinitrate and isosorbide dinitrate, which, when absorbed from the buccal mucosa owe their pharmacological effect mainly to dilatation of the capacitance veins, so causing a reduction of venous return to the heart, a reduction in central blood volume in left ventricular filling pressure, stroke volume, and blood pressure, and it is from this effect that angina is relieved.

Should vitamin A be given to prevent deficiency for two to three months to women ceasing to take oral contraceptives?

Plasma vitamin A concentrations are raised in women taking oral contraceptives and so is the retinol binding protein concentration. Like so many other side effects of oral contraceptives this may be due to the oestrogen content of the pill. The reason for the raised vitamin A concentration is not clear, but it appears to be the result of mobilisation of liver stores. It might be supposed that vitamin A stores are depleted by the treatment and that the concentrations fall when oral contraceptive use ceases. Clinical manifestations of such deficiency have not been reported for the relatively well-nourished European population, and there is no pressing need for replacement treatment.