

# My Student Elective

## Three months in Paraguay

SIMON STOCK

*British Medical Journal*, 1979, 2, 1274-1275

*This is the first in a series of articles by medical students about their electives abroad.*

Paraguay is a land of contrasts: Asunción, the capital, has the façade of a flourishing modern city, but a more attentive look will reveal women in the back streets eating the lice out of each other's hair. The plush central hotel commands a fine view spoilt only by the rambling wooden slums bathed in their own sewage at the edge of the city. A few miles out of the busy



capital there is hardly a house to be seen, so low is the population density in the rural areas. Paraguay nestles in the heart of the great South American continent and is surrounded by the vast countries of Brazil, Argentina, and Bolivia, which in some areas are only marginally more developed than Paraguay.

I did not spend my three months in the relative sophistication of the capital (though the teaching hospital has but one x-ray machine that works only sometimes and only rudimentary laboratory facilities) but rather in the Chaco region to the north. This is a tropical area of scrubland and marsh the size of Great Britain inhabited by several thousand semi-nomadic Indians.

### Medicine in the Chaco

No provision for health care is made for the Indians by the Government, which is barely able to look after the city dwellers.

Richardown Road, Newcastle NE2 4BH  
SIMON STOCK, medical student

A brief review of the country's history will explain the origins of the two communities now living in Paraguay. The Indians are the pure-bred natives of the country thought to have originated from some central point in the continent several thousand years ago, whereas the Paraguayans are the descendants of those Indians who intermarried with the Spanish settlers about three hundred years ago—the so-called mestizos. It is this long-standing dichotomy that has caused many problems and differences of which language and different standards of health care are but two examples.

Paraguay has a bewildering array of languages; Spanish is the official national language, in line with all South American countries except Brazil, but an Indian language, Guaraní, is the people's language, being used in all but business matters. In addition, there are three main tribal languages of the Indians, of which Lengua is the most widely spoken. I was therefore somewhat baffled, being armed with only a smattering of Spanish sufficient to cope with shopping and other trivial tasks. Difficulty with communications, in a broader sense than I was experiencing here, is one of the major problems encountered in medical work in the Paraguayan Chaco. For example, the nearest town is about 100 miles away and Asunción twice as far and hence the supply of food and medicines by roads that are impassable in bad weather is a considerable problem.

I spent my time at Makthlawaiya health clinic on one of the larger cattle ranches in the area. The only medical work amongst the Indians is undertaken by missionaries, and the Anglican mission I stayed at has been there for about 70 years and is well known and accepted by the Indians over an area of 20 000 square kilometres. Staffed by one expatriate doctor, two expatriate nurses, three Indian nursing auxiliaries, and an Indian laboratory assistant, the clinic seeks to deal with the major health problems with a basic community health programme. The problems are measles (until recently the commonest fatal disease), gastroenteritis (with the associated problems of dehydration), and tuberculosis—all exacerbated by chronic under-nutrition. Last year one in three children died before their fifth birthday. The priority whenever possible is prevention, firstly, by vaccination and, secondly, by health education, but, as in Britain, most of the time is spent treating ill people. In Paraguay, however, this is done with the few available medicines and several well-tried simplifications of other treatments such as fluid-replacement regimens. As is common in many developing countries, nurses act as the first line for patients' consultations, and only difficult cases are referred to the doctor.

The staff at the clinic are in contact with the mission headquarters in Asunción by a two-way radio and there is a regular daily contact to discuss business matters—for instance, ordering medicines and making travel arrangements. (The staff spend three months at a time in the Chaco followed by two weeks in the capital, where they catch up on the paper work and enjoy some of the home comforts which are so lacking in the Chaco.) Here again there is a communication problem because the reception is sometimes adversely affected by the weather; if you are not speaking in your native language (Spanish must be used

by law) it can be very difficult to understand what is being said.

The clinic is open seven days a week and has a morning and an afternoon session every day except Sunday, when there is just one in the afternoon. About 60 patients are seen every day. There are also two mother-and-child clinics, which are effective in identifying children with a high risk of running into health problems. Weight and height charts are kept for each child until their fifth birthday, vaccinations are given (fig 1), and mothers and children are regularly examined. A copy of this information is given to the mothers and they are expected to bring it with them each time they attend. This system works well, and because she is involved the mother feels more responsible for her child's wellbeing. Her attendance at the clinic is also a useful opportunity to teach her basic health measures. About 40 children are seen in this way every week.

A rudimentary laboratory established by a microbiologist from Britain provides facilities for sputum microscopy and culture for tubercle bacilli and several serological tests for diseases such as syphilis, typhoid, and brucellosis as well as for Chagas's disease. The third kind of work undertaken is research, into problems such as the prevalence of hookworm anaemia and the contamination of local water supplies.

### Student at Makthlawaiya

I participated in all three kinds of work; for example, I worked in the daily clinic, though history taking was difficult using only the few Guarani phrases I had learnt and sign language. I went on several trips during which we vaccinated 800 children in outlying villages against measles, covering hundreds of miles and seeing many parts of the Chaco. I also prepared a study on the prevalence of heart complications in patients who were serologically positive to Chagas's disease (two-thirds of the population in the area).

Among much routine work I saw a number of unusual conditions. Some were relatively minor—for example, a young man who came in with an infected laceration on his foot caused by a piranha bite. Most were tragic, however: a boy of 15 almost completely blind from vitamin A deficiency; and a 3-month-old baby who died from tuberculous meningitis, which



FIG 1—Nurse vaccinating an Indian child.



FIG 2—Asunción bus stopped on the Chaco while passengers pursue an animal.

he had caught from his mother who had defaulted from treatment of her open pulmonary tuberculosis. Another sad case I saw was a 5-year-old girl with a classical knuckle kyphosis in her thoracic spine from Pott's disease. One of the more unusual ones was a gross case of a fungal disease, keloidal blastomycosis. What struck me about most of these cases was that had they presented earlier they would have been curable even with the limited resources available. This, I felt, was one of the major hurdles still to be overcome before any treatment, regardless of how sophisticated or simple, would be truly effective.

Paraguay is a beautiful country (and a very hot one: temperatures in winter reach 35°C in the shade) and is full of fascinating wildlife. I spent several interesting days investigating the area and saw many beautiful creatures such as humming birds, toucans, capybaras, and coatis. One day I particularly remember I was travelling back on the local bus, a splendid if rather decrepit Mercedes vehicle built like a tank, towards the camp when suddenly the driver braked hard and the conductor leapt out followed by half of the passengers, all brandishing various guns and rifles (fig 2). They pursued an animal that had been spotted in the bush. This procedure was repeated twice in the next half-hour and provided the rest of us with much entertainment, particularly as they were all appallingly bad shots so that the animal usually escaped unhurt.

### Home again

On my way back home I visited the magnificent Iguazu waterfalls and the illustrious city of Rio de Janeiro to complete an insight into another culture and into another medical service, which has not yet had to make some of the decisions we have faced in Britain and which has not yet made some of the same mistakes. This time was more than just three months of exciting discovery, seeing and doing things I had read about for many years: it was also an experience which has enabled me to look at our own health problems from a broader viewpoint—an ability that I hope will be useful in my future career. Students should be encouraged to travel abroad; it hardly matters where for we can always learn something from other people.