of his deputy should be kept to hand. They will usually be found in the telephone directory under the name of the local authority health department. In cities there is often a rota of D.A.O.s on duty, and particulars of this can be obtained from the office of the medical officer of health.

It is important to remember that the practitioner, in notifying the D.A.O. of the existence of a person of unsound mind, must leave the action to be taken to the discretion of that official, with whom the final responsibility rests. A position quite often arises, as it did before 1948 with relieving officers, in which the doctor may feel that he should tell the lay official what to do about the case. The D.A.O. on the other hand may compensate for any sense of inferiority he feels by making it quite clear that the statutes lay it down that any action is entirely at his discretion, as in fact it is. He will often know more about the legal possibilities than the doctor and may have seen many more acute psychiatric cases. Both have much to gain from mutual co-operation in the interests of the patient, and the practitioner will do well to discuss the matter with his lay colleague and to ask his advice about the statutory procedure to be adopted. The D.A.O. on the other hand will usually prefer to have his decisions backed by a medical opinion. A good understanding with the D.A.O. will, in fact, greatly simplify the practitioner's task in dealing with acute mental cases in his area, and, moreover, the D.A.O. is usually a most useful source of information both on the statutes relating to his work and on the different social agencies which can help with psychiatric problems.

[Part II will be published in our next issue.]

MISSION TO LATIN AMERICA

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Political and economic circumstances have been largely responsible for the lack of contact between the medical profession in Great Britain and in the countries of South and Central America. The war years and the restrictions on travel maintained this isolation, and it has only been in the last few years that an organized visit or tour could be regarded as practicable. There were indications from various quarters that a mission would be welcome, and that a friendly reception would be given to a small group of doctors from Britain who would be able to spend six or eight weeks visiting selected medical centres in Latin America. Four medical men were therefore chosen to form a mission, which was sponsored by the British Medical Association, and travelled with the administrative help of the Foreign Office.

Aims and Composition of the Mission

The aim of the mission was to establish professional and cultural relations in Latin America, and to open channels for a freer exchange of medical information and experience. In many of these countries geographical and economic factors have limited postgraduate training for young doctors to visits to their North American neighbours, whereas before the war their seniors had been able to come to Europe. It was felt that a mission might stimulate the desire to visit

the educational centres of Europe; and that those interested in special aspects of medicine might travel more freely between the two continents. These aims were endorsed by a number of the more senior medical men in the countries visited. Time and financial resources unfortunately restricted the final programme, so that it proved impossible to visit several countries which had expressed a wish to receive the mission.

The team of four consisted of two physicians, a surgeon, and an anaesthetist. Each member submitted in advance a list and summary of lectures and demonstrations in his own speciality which he thought to be representative of the work in Britain, and in each country which was visited a reception committee, consisting of senior members of the universities, faculties, academies, and colleges, was set up and this body selected and prepared a programme. At most places each member gave three or four lectures, and in addition a number of operations were performed. Some 40 to 100 doctors and students were usually present at these lectures, but many more people attended the addresses of a less technical character and of a more general interest. As is usual, the informal addresses and demonstrations that followed lectures were keenly discussed and debated. The hospitality accorded to the mission was as complete as the programmes.

The Itinerary

The mission left England in October, 1951, and flew in great comfort by B.O.A.C. via Lisbon and Dakar to Brazil, where, in Rio de Janeiro, Professor Jorge Grey generously made the facilities of his surgical clinic available, and undertook much of the organization. Dr. Mario Almeida—an honorary member of the British Association of Anaesthetists—had developed an efficient service in a subject that had been previously rather neglected. The Director of the Oswaldo Cruz Institute, Dr. Henrique Aragao, showed the mission round his hospital and stressed the social importance of schistosomiasis. He also demonstrated patients from the forests of the north suffering from the acute and chronic forms of Chagas heart disease. This condition is one of the very common causes of enlargement of the heart in Brazil, although it is almost unknown in Europe. Dr. Pedro Nava, the president of the Rheumatic Association, showed that the local problems of rheumatism were similar to those in Britain.

In São Paulo, only one and a half hours distant by aeroplane, there was a most active university medical centre in a rapidly growing city. Operations and lectures were carried out at the Hospitals Clinicas and Santa Casa.

Port of Spain in Trinidad was reached by a non-stop flight, punctuated by many thunderstorms, from Rio across Central Brazil. Here the mission was welcomed at two in the morning by the members of the Island's B.M.A. While the surgeon, with the assistance of Mr. Joe Pierre, operated at the new Caura Sanatorium (Dr. Branday), the physicians were consulted on the various problems of social and general medicine that were peculiar to Trinidad. At San Fernando in the south of the island the members of the mission climbed the skeleton of the new Colonial Hospital (Mr. Shepherd) that is being built, and helped in the planning of a modern physical medicine department. At the oilfields there were well staffed and equipped hospitals where the clinical work was excellent, although Dr. Finlayson, the C.M.O. of Trinidad Leaseholds, and Dr. Ahin, of Shell, pointed out that they were only now beginning to tackle the problems of social and industrial rehabilitation.

Five days later the mission flew to the coastal airport of Caracas, the capital of Venezuela. Here the hospitals are both of old colonial and modern pattern, and the old city hospital, Vargas, was reminiscent of many hospitals in Paris and Spain. Professors Perez Carreño and Borja were in charge of large and efficient surgical clinics, and Dr. Alberto Paris, who had worked in England as a British Council scholar, kindly made arrangements for operations to be performed in his own hospital and other institutions. Centro Medico, a large private clinic, was a most lavishly equipped building in which many of the leading doctors had their consulting suites. There were some 60 rooms for private patients, who paid as many dollars for their keep as they would have done pounds in London. Dr. Tervel, another British Council scholar, was equally helpful to the physicians.

Maracaibo, the city of the Venezuelan oilfields, has sprung up in the last 25 years from a village to a large city of over a quarter of a million inhabitants, and is the centre of the University of Sullia. Professor Leonardi, in charge of the Surgi-

cal Hospital, and Dr. Iturbi, of the district sanatorium, have developed highly efficient units in modern hospitals. The medical services of the Shell group, under the charge of Dr. Hernandez, employ some 40 Venezuelan doctors, each of whom is both a general practitioner and a specialist in some such branch as otology, urology, and dermatology. These men had been sent to North America or Britain for postgraduate training. Company scholarships are available for six selected candidates to study medicine, six for a nursing diploma, two for a degree in pharmacy, and one in laboratory technique. The close relationship between curative, family, and preventive medicine was most refreshing and carried some valuable lessons for those responsible for modifying our National Health Service.

At Panama City, Dr. Conte Mendoza, who acted as secretary to the reception committee, with other graduates from Bart's have kept British influence to the fore. Lavish hospitality was provided by two former Presidents of the country and another old Bart's man, Dr. Adolfo Arias. The United States Medical Services from the Canal Zone also took part in the programme. Major-General Rice, Health Director of the Panama Canal, and Colonels Blitch and Kintz, in charge of the hospitals, escorted the mission round the canal zone.

Guatemala City, situated high up within a fringe of volcanoes, was one of the most picturesque of all the places visited. Lectures were given at the Academy of Medicine, of which Dr. Lizzaralde was the doyen. The Institute of Nutrition was a most lively organization, under the charge of an American physician ably assisted by a well-trained Guatemalan technical staff.

At Mexico City members of the mission lectured, among other places, at the Institute of Cardiology, and operated in Dr. Alarcon's sanatorium and the Military Hospital. The new university city is as yet incomplete, but the hospital area consists of a general hospital, surrounded by admirable institutes of paediatrics, orthopaedics, cardiology, and nutrition. The Institute of Cardiology has been created by Professor Ignacio Chavez with the help of friends as well as patients. It was a most stimulating centre where many workers were engaged in the investigation and treatment of cardiovascular disorders, particularly rheumatic heart disease. The testing of new drugs, the application of new physical methods, and the training of the cardiac cripple were all included in the programme there.

The final visit was to Havana, where the Calixto Garcia University Hospital is surrounded by the Doctors Hospital and institutes of maternity, orthopaedics, paediatrics, and cancer. Other modern hospitals of excellent design include the Maternity and the Carlos Finlay Military Hospitals, and the Esperanza Sanatorium. Drs. Ramon Aixila and Bustamente spared no effort in ensuring the success of the visit, and were ably helped by Drs. Lastra, Rodriguez Diaz, Banet, Angel Reaud, Araujo, Cwley, Calero, and others. Professor Castellanos, who was the pioneer of angiocardiology, was in charge of the Institute of Pediatrics and is continuing his research in heart disease. Professor Tarafa, the eminent orthopaedic surgeon, has built the Franklin Delano Roosevelt Rehabilitation Centre with the generous assistance of North American and Cuban benefactors.

General Impressions

After a short visit an impression is all that can be offered. Latin America can be likened to Europe. Each country has its own culture and individual tradition. The medical training in all countries was efficient and adequate, with students undertaking considerable responsibilities in their later years. Where the full facilities of a university were absent some parts of medical training had to be undertaken abroad. Consultant staffs were invariably of a high order, and were clearly regarded as people of considerable social and political importance. The practice of general surgery and medicine left little to be desired, but special branches were not so advanced. There were not enough nurses, but the trained staff was efficient, though the standard in operating theatres was not as high as in this country. The facilities for physical medicine and modern rehabilitation were poor. This may in great part be due to the fact

that a man who is unable to work is not a heavy financial liability to the State: either his relations care for him or he has to fend for himself.

As at home, the relations between Government services and members of the medical profession were not always harmonious, both parties alleging on occasions that the other did not fully appreciate their obligations to the sick. But the tendency is towards an improvement in the medical services which will parallel the magnificent achievements in public health work. In one country the medical profession took the lead, in another the Minister of Health. The latter—who is always a medical man—was in most countries an enthusiastic and practical exponent of social medicine.

In Havana there were a number of *centros*, or insurance hospitals. The subscribers obtained increasingly good conditions for treatment as the competition between the different societies developed. We were impressed by the comprehensive services that were provided, which, being the result of private enterprise, had to be self-supporting. The modern maternity *centro* was said to have the best part of a million members. The fact that these institutions had developed and were self-supporting should surely contain some lessons for other countries. From the doctor's point

An example of modern hospital architecture. The Carlos Finlay Military Hospital at Havana.

of view the relatively low rate of pay was undoubtedly causing some uneasiness, and if continued might lead to the staffing of these *centros* by junior or less experienced men.

Many of the hospital buildings were modern and often extravagantly equipped, but there were never enough beds to meet the total needs of the population. Some of the show places, such as the Hospital of the State Services in Rio, the Creole Hospital in Maracaibo, the Institute of Paediatrics and Orthopaedics in Mexico City, the Maternity and Military Hospitals in Havana (see illustration), were far in advance of those at home. But they provided services for only a very small part of the population.

The tropical or semi-tropical climate has influenced hospital construction in the interests of coolness and ventilation, and the operating theatres are usually air-conditioned and kept at a low temperature. Special institutes are of fine modern design, and if, as in Mexico or Havana, they are grouped round or near the general hospital, there are obvious advantages in preventing isolation of the specialist medical staffs.

Private clinics and hospitals are numerous and furnished with every convenience, so that the patient who is willing or able to pay is fully catered for. Special mention should be made of the tuberculosis services, which in some countries were well developed with domiciliary control and active and "chronic" sanatoria with full surgical facilities. The Venezuelan services, which owe much to the energies of

Drs. Baldó and Iturbi, follow the general outlines accepted in this country, with local modifications to meet the needs of the more primitive members of the population. This service contrasted vividly with that in another country, where a few beds in a general hospital are the only evidence of active treatment.

Convalescent homes and rehabilitation clinics were rare, and a general criticism is the failure to bridge the gap between hospital treatment and a return to normal life. An exception was the centre in Havana already mentioned, where a diagnostic centre co-ordinated the activities of surgeon, physiotherapist, and social worker. We noticed the lack of trained physiotherapists in all countries.

Surgery

The training and standard of general surgery were sound in all places visited, though shortages of nurses and of beds were admitted handicaps in some countries. Sometimes the general aspects suffered from the amount of attention centred on special institutes, which had the advantages of modern structure and were well equipped. The accepted specialties are usually carried out by general surgeons because there is not enough work to make special units economical. In consequence, these subjects were not well developed, though such operations as lung excision were performed routinely.

The assessment of patients was invariably thorough and at times excessive, but the actual pre-operative preparation was often brief, and the absence of physiotherapy, certainly in thoracic work, was unfortunate. Surgery in pulmonary tuberculosis was frequently undertaken, and, in spite of a bias towards resection, thoracoplasty and other collapse operations were still regarded as the basis of active treatment once the disease had been stabilized by conservative measures and the free use of chemotherapy. The larger sanatoria had surgeons attached to them, but these men did not always have full opportunities for non-tuberculous surgery. The course of phthisis did not show the variations that might have been expected; negroes were admittedly vulnerable, but the Indians and mixed races responded reasonably well to treatment, though it was difficult to prevent them cutting their treatment short.

Lung surgery for infective conditions and growths was accepted as a routine, though the results were not always satisfactory in the absence of established team-work.

There were many requests for demonstrations in oesophageal surgery, and it is interesting to record that two patients with ruptured oesophagus were operated on, in addition to a number of excisions undertaken for oesophageal cancer.

The greatest interest lay in heart surgery, in which pioneer work has been done in some of the countries visited, as for instance that of Castellanos on cardio-angiography. A number of operations on patients with mitral stenosis, pulmonary stenosis, and patent ductus arteriosus were safely performed.

Minor points of interest were the almost complete absence of staphylococcal and streptococcal infections in Venezuela, and the lower frequency of rheumatic heart disease in the same country as compared with that in Brazil.

Anaesthesia

Anaesthesia has progressed in varying degrees along the road to full specialist status in the countries we visited. In Brazil the greatest advance has been made, for there they are training their own men. The senior anaesthetists were trained in North America, but the present generation is learning at home. The instruction in the subject is almost entirely postgraduate, and takes the form of an apprenticeship to one of the established anaesthetists. At first, those training act merely as assistants, keeping charts, filling syringes, etc. Next they give anaesthetics under super-

vision and progress to selected cases, and finally have lists on their own. There is an active society of anaesthetists, and the younger members are encouraged to present their difficult cases for discussion, but such cases are only accepted if accompanied by a full clinical record. This is a great incentive to the keeping of records.

In Mexico and Cuba full specialist status is already accorded to the anaesthetists, but they have usually undertaken postgraduate study in North America to obtain recognition. In Venezuela the transition from nurse technicians is in progress, and although they have a few highly skilled men most of the work is done by non-specialists. They are hoping to overcome this by running a course of instruction in the basic sciences and practical anaesthesia at two of the State hospitals.

In Trinidad, both in the Colonial Medical Service and on the oilfields, anaesthetics tend to be given by the junior medical officer, although there are two well-trained anaesthetists on the island.

Except in Brazil and, of course, Trinidad, the equipment was all North American. All gases had to be imported, and, as nitrous oxide by semi-open methods is very expensive, cyclopropane in a completely closed circuit has remained the most popular agent. The relaxants are widely used, but, if it be possible, too cautiously, the tendency being to use deep anaesthesia and a minimum dose of relaxant. It is unfortunate that decamethonium bromide is regarded as the relaxant commonly used by British anaesthetists.

Rheumatology

Rheumatology was, as we felt it should be, regarded as part of general medicine. The essential social and industrial links were usually absent and almoners were rarely seen at hospital clinics. Physiotherapy and occupational therapy departments, even when they did exist, were sadly understaffed. Almost everywhere doctors wanted to know about the antibiotics and cortisone, preferably for injecting into their patients, but to most the idea of the management of the patient or of team-work was regarded as Utopian. Physical medicine is not as yet a specialty, but modern physical methods, such as ultrasonics, are used in many of the private clinics.

Psychiatry

Psychiatry, perhaps more than other specialties, is markedly influenced by the cultural and economic background of the country, and this, was certainly well illustrated during the tour. In South America there are still extremes of wealth and poverty that are no longer seen in Western Europe. Against this background it is scarcely surprising that there is a wide difference in the treatment facilities for private and hospital patients; as yet there are inadequate arrangements for the rapidly developing salaried class. Technically the specialty is well developed, but in most countries the public mental hospitals are overcrowded and the standard of treatment is impaired by shortage of staff. The same situation exists in Trinidad, where the medical establishment is substantially below the standards of this country.

The private clinics are usually excellent, with good equipment and staff trained largely in the United States. Dr. Bustamente, in Havana, with a small team operating a busy psychiatric practice, is evolving interesting methods of group therapy for private patients.

São Paulo, in Brazil, was particularly remarkable because of the great industrial developments taking place there. The city has changed in a hundred years from a colonial village into the world's fastest-growing city with a population of nearly two millions. The leading industries are spinning and weaving, tanning, light engineering, chemicals, and the handling of coffee. So fast is São Paulo growing and such is its potential for further growth that it may well become the greatest city in South America by the end of the century.

With this background it is scarcely surprising that the psycho-social problems of industrialization are so much in evidence, and many of the psychiatrists, such as Dr. Bastos and Dr. Odair Pedroso, are well alive to them. There is clearly need for a programme of rehabilitation, and many of the industries would probably co-operate if encouraged. There is an equally challenging situation in Mexico City, which has a population of a million and a half and where rapid industrialization is also taking place. Professor Alfonso Millan is doing a great deal to propagate community psychiatry in Mexico, and it is significant that Mexico City was chosen for the World Federation of Mental Health Congress last December. The Ministry of Social Security is developing a programme of social and health services in the country districts, while a rehabilitation centre for 200 out-patients at a time is being started in the city under the guidance of Dr. Farrill.

It is important to realize that these social and industrial changes are taking place against the background of Latin American culture, which is Catholic, patriarchal, and in which family ties are particularly strong. The impact of the American way of life, which is more matriarchal, competitive, and industrialized, is having a marked effect on the younger generation. This is perhaps partly responsible for the increasing incidence of neuroses and psychosomatic disorders to which so many colleagues made reference in all the cities visited.

There is a wide range of practical knowledge of rehabilitation in the English-speaking countries that could be applied with suitable modifications in Latin America. Quite apart from the prevention of human suffering, the development of such a programme is certainly the best way of bridging the gap between the medical and social sciences, the Government, and industry that is apparent in Latin America and that may well produce serious social tensions in the years to come.

Public Health

In the cities the most striking feature to the visitor is the efficient sanitation and the almost complete absence of insect life. The effective control of yellow fever, malaria, and enteric infection is one of the great achievements in medicine, and the names of Carlos Finlay, in Cuba, and Gorgas, in Panama, are rightly honoured. But the control has to remain active, and this is witnessed by the disinfection of aircraft and the taking of temperatures on landing in some countries. The main problem would appear to lie in the tendency of the Indian and Negro population to leave their agricultural and rural surroundings and to seek a precarious existence in the cities. This causes an acute housing shortage, and "shanty towns" of unsavoury appearance must present a real difficulty to public health authorities. The discovery of incalculable sources of mineral wealth in some countries (oil in Maracaibo, for example) has led to a mushroom growth of some cities, where the outward paraphernalia of modern wealth contrast with the primitive life of Indian tribes not many miles away. Arrow wounds and mauling injuries by panthers are still treated in the city hospitals.

Snakes, particularly in Brazil, constitute a grave danger to men and cattle, but this terror has been reduced by the magnificent work of the Butantan Institute in São Paulo. Here venom is collected from snakes, spiders, and scorpions and, after transference through horses, is prepared as dry anti-venom and distributed throughout the country, where it has saved many lives. This institute is actively interested in ecological problems and possesses a unique museum showing all aspects of the anatomy, chemistry, and behaviour of these poisonous creatures.

Conclusion

Though there are continual interchanges and conferences between the various countries of Latin America, the overriding influence is undoubtedly derived from North America. Many physicians and surgeons have done their postgraduate studies in North American clinics and speak English fluently. In spite of the existence of many good medical libraries

European medical literature is not widely studied and many well-established journals are virtually unknown. Admittedly much of the extensive Latin American literature is equally unknown to us, but even though written in Spanish or Portuguese these papers usually have summaries in English.

The interest taken in all facets of British medicine shows that many medical men would like to study with us if the opportunities were provided. The rate of monetary exchange and the speed of air travel are advantageous to visitors to Britain, and the British Council has already given a number of postgraduate scholarships. Those British Council scholars whom we met showed that they had made great use of the facilities offered to them. Further encouragement would be a great service to developing a closer liaison between the continents.

Adequate acknowledgment of the courtesies and hospitality shown cannot possibly be made, but we would wish once again to express our real appreciation to those who organized the programmes and who entertained us, and to the Embassies and their staffs for their invaluable help and kindness in many matters both professional and personal. We hope that we may soon have the opportunity of returning some of the hospitality which we received from our Latin American colleagues, whether they come as members of a mission, participants in a congress, or as individuals visiting this country.

HEALTH SERVICE COSTS

[BY A SPECIAL CORRESPONDENT]

Has expenditure on the Health Service been stabilized? The maintenance of the limit of £400m. for another financial year—before the Dankwerts award was announced—prompts this question. Speaking last week in the debate on the new Health Service charges, Mr. Aneurin Bevan said that after only one full year of the Service (1949–50) people had shown a predictable pattern of behaviour towards it which enabled realistic estimates of its cost to be made. Yet if he had still been Minister of Health he would have been hard put to it to have retained the limit of £400m. without either imposing charges or cutting the hospitals' budgets. As the following Table shows, the fall in the cost of the dental and supplementary services in the new financial year (1952–3)—the two services in which, as Mr. Bevan rightly said, there was a big pent-up demand in the first two years—has been nearly all taken up by heavier expenditure on the hospitals.

Where the Money Goes

Health Service Estimates

Total Net Cost to Taxpayer	(£m.)		
	1950–1* 377	1951–2 398†	1952–3 392‡
Grants to local health authorities	16.8	18.6	20.6
General-practitioner service ..	47.4	48.4	48.5
Pharmaceutical service‡ ..	39.0	43.6	39.9
Dental service‡ ..	45.5	36.2	20.1
Supplementary ophthalmic service‡	21.9	14.6	6.3
Grants to hospital boards ..	251.1	274.3	295.6
Of which maintenance ..	244.3	260.8	285.7

* Actual, except for hospitals' maintenance expenditure, which is estimated.

† Excluding Civil Defence.

‡ Allowing for charges to patients.

There is no escaping the fact that expenditure on the hospitals could be expanded indefinitely, and so long as a limit is imposed on total Health Service costs any expansion has to be offset by economies elsewhere.

To a large extent the local health authority services both complement and spare the hospital services, and they might relieve the burden on the hospitals even more if they could be further expanded. Unfortunately, a big expansion is blocked not only by the Health Service limit but by the other demands on the local authorities' rate income.