INTRODUCTION

Wolfson Foundation Visiting Professorship

I had the good fortune to be appointed in 1973 to the first Wolfson Foundation Visiting Professorship in General Practice. The appointment entitles the holder, who must be a Fellow or Member of the Royal College of General Practitioners in active practice in the United Kingdom or Eire, to spend four to six weeks in any part of the world.

The terms of reference are wide and include consideration of undergraduate education, postgraduate education, research in general practice, and methods of providing medical care. Unlike previous opportunities for overseas travel for general practitioners, such as the Nuffield Overseas Fellowships, which were available to doctors in their late thirties or early forties, the Wolfson Professorship is awarded to senior members of the profession who are less likely to make original contributions to medical teaching or medical care after their appointment. The primary purpose is to take the experience and views of the Royal College of General Practitioners overseas, rather than to bring back new ideas which can be modified and adapted to the needs of the United Kingdom.

Choice of countries

The decision on what countries were to be visited rested primarily with me, though I would have been foolish not to consult widely amongst colleagues in this country, and in the places which might be visited, before making a final choice.

There are four main factors to be taken into consideration. First, can the holder communicate with those whom he chooses to visit—in my case this meant countries where, at least within the profession, English is spoken. Second, has the holder something worthwhile to communicate to those involved in primary medical care—in my case experience of postgraduate and continuing education, an interest in methods of providing primary care, and some knowledge of the purpose of teaching undergraduates by general practitioners. Third, the holder must be able to establish empathy with and understanding of the problems of the profession in the countries to be visited. Finally, though this is less important, it is desirable to be able to bring back to the United Kingdom information of interest.

Because the Royal Australian College of General Practitioners and the Royal College of General Practitioners have always had close ties and similar aspirations, which had already helped me to become friends with several Australian general practitioners, and because discussions about the Wolfson professorship had already taken place during the conference in Melbourne in 1972, of the World Organisation of National Colleges and Academies of General Practice (WONCA), Australia fulfilled all four criteria.

I eventually decided that the main part of the tour should consist of visits of one week each to the capitals of South Australia, Victoria, New South Wales and Queensland. By contrast, I decided to make short visits, geographically conveniently placed on the return journey, to Singapore, Bangkok in Thailand, and Karachi in Pakistan. In these countries the teaching of Western medicine has been based on United Kingdom traditions, though I did not know how far the above criteria would apply. I thought that it would be of interest to find out if they did apply, and if so, to decide if the Royal College of General Practitioners should try to establish links with the profession in these countries.

AUSTRALIA

Judgements made and opinions formed by those who make short visits to strange lands are notoriously inaccurate, and I can only apologise to my Australian friends for trying to describe Australian general practice and some of its problems. First, however, it is necessary to focus on the Australian scene as a whole and destroy some popular misconceptions.

Australia is no longer dependent on widely scattered rural communities, but is the world's most urban society. More than half the population lives in the capitals of the various states. By contrast, in the outback in Alice Springs, which I visited, the hospital serves the needs of 12,000 people living in an area of half a million square miles. Clearly the problems of providing medical care in the coastal towns and the inland areas are quite different.

Since the 1939–46 war the population of Australia has nearly doubled, and is now about 13·5 million. Most of the New Australians have come from various European countries, but they are not the rugged individualists of the immigration of the Victorian era, but rather they present with social and medical needs of typical European industrial communities. Consequently, the medical needs as well as the political aspirations of the country are changing.

Until they were federated in 1901 to form the Commonwealth, Australia had consisted of six independent crown colonies, which had had full power of self government for over 50 years. The state governments still play an important part in developing health policy, particularly in the hospital service, and this has reflected itself in the development of general practice in each state. Though a Commonwealth National Health Service was established in 1951 whereby individuals were partly insured for health care, this system varies from state to state.

The proposals which Mr Whitlam's Australian Government made for a comprehensive National Health Service, to include both primary care and hospital care, met with a very mixed and sometimes hostile reception, both from individual doctors and state administrators, jealous of their rights and traditions. In contemporary Australia there are greater differences between the style of general practice in each state than between general practice in England, Scotland, or Wales. Thus there are marked differences in outlook and interests between the faculties of the Royal Australian College of General Practitioners, which are based on the states.

General practice in Australia has evolved from the traditional physician and surgeon of the early twentieth century in a similar way to general practice in the United Kingdom. Developments, whether they be good or bad, have, since 1945, been slower in Australia, so that the Australian general practitioner is now grappling with the problems that we had to face in 1948 and subsequently.

Though the work of the Australian general practitioner is similar to ours, he is probably more interested in physical disease and its diagnosis and treatment than in the emotional and social side of ill health. He cares for about 2,000 patients and works longer hours than he would in the United Kingdom. Though many are formed into groups and partnerships, more Australian general practitioners are in single-handed practice than in the United Kingdom.

Medical fees

The Australian general practitioner has rejected completely payment by capitation, despite an experiment after the 1914–18 war. Payment is on a fee-for-service basis, the patient being billed directly by the general practitioner, who charges what he considers to be appropriate. The insured patient then receives part of the fee from a fund

provided partly from insurance and partly from the state. The amount recovered depends on the nature of the service given or procedure carried out, and is based on the " most common fee " charged by doctors in the state concerned. There is a considerable difference between the fees in various states. Pensioners are an exception from this method in that they can obtain services free, and the general practitioner obtains a fee for service direct from the Government.

Proposals by the Labour Government

At the time of my visit the Australian Labour Government was proposing fundamental alterations to national health insurance, basing it on the nation rather than the state, and making it compulsory rather than voluntary. The payment of general practitioners would be by fee for service but, though it would still be possible to bill the patient and allow him to recover as much of the charge as he could, there would be financial advantages to the general practitioner for him to charge the National Health Service direct, without making any additional charge to the patient. These suggestions may not seem threatening to British general practitioners, but they are to Australians many of whom believe that the removal of a cash transaction with the patient, and a possible levelling or abolition of differing charges for differing services, would result in a general lowering of standards and possible abuse of the service by patients.

The Government was also interested in the development of health centres, and in the co-ordination of services similar to the British concept of a health care team. Though these concepts are now generally accepted and even encouraged by British general practitioners, we must remember that not many years ago they were looked upon with fear, suspicion, and disfavour in this country.

Changes were also suggested in the provision of hospital services, in particular in the administration of private hospitals, in which general practitioners do much work, and in the provision of free outpatient consultations, now only available in Queensland and Tasmania.

Though many Australian general practitioners, especially within the Royal Australian College of General Practitioners, are interested in developing new methods of providing health care along the lines of the British National Health Service, the new government's plans took the profession by surprise, and found it relatively unprepared. The government was accused of failing properly to consult the profession, and one effect was to encourage reactionary splinter groups similar to those that have appeared in this country from time to time.

It is confusing enough to try to understand the health services of a country in a short time, but even more so when those services are in a state of upheaval. Nevertheless, it was perhaps a useful moment for an overseas professor to visit, as so many of the current problems of the Australians were similar to those that were faced and overcome by the British profession.

Undergraduate medical education

There are at present eight medical schools in Australia. A new school at Flinders, South Australia, is to take its first students in 1974, and tentative plans are being made for at least one other new school. About 1,000 doctors graduate each year, and this will increase to 1,200 in the near future.

Despite this high proportion of medical graduates in the population of the country, the numbers entering general practice are dangerously low. In Victoria only 25–30 per cent of those at the end of their intern year have decided on a career in general

practice. New South Wales requires 160 new general practitioners a year to maintain its doctor-patient ratio, but only 40 doctors are entering general practice each year.

It is interesting to compare this situation with that in Britain in the 1960s, when general practice was not popular with young doctors. Graduates may choose a career because of the enthusiasm of their teachers and the interest of the subjects that they have been taught, or they may be motivated more by career prospects. The increased interest in general practice shown in recent years by United Kingdom graduates may have been caused by the development of teaching by general practitioners, by disillusionment with the rat race of entering specialist practice, or by improvements in the clinical standards and organisation. Changes in the system, rather than teaching in general practice as it is now, may be the more important factor in attracting young Australian graduates to this branch of the profession.

No university departments

Most Australian universities at least pay lip service to the dictum of the Royal Commission on Medical Education that the purpose of the undergraduate course is to produce a basic doctor, and that the course must include experience of general practice. There are, however, as yet no departments of general practice, or community medicine, in Australia, though teaching by general practitioners takes place in several schools under the control of other departments such as social medicine or psychiatry.

Extensive changes of curricula to increase teaching of medicine in the community are being carried out in some schools, and it will be interesting to see if they will be followed by an increase in the proportion of graduates choosing general practice as a career.

Interesting comparisons can be made with the United Kingdom. In both countries the older and more traditional schools seem less likely to develop teaching in the community with practising general practitioners as the teachers. The absence of departments of general practice may be due to rigidity of outlook and lack of trust in general practitioners by the medical schools, lack of local enthusiasm by colleges of general practice, or a combination of both factors.

The general pattern of Australian curricula is based on a six-year course, of which the first is roughly equivalent to the British pre-medical year; years two and three to pre-clinical; and the remainder are equivalent to the clinical years.

University of Adelaide

In South Australia the established medical school is part of the University of Adelaide. The Department of Psychiatry is responsible for organising the teaching of behavioural sciences and community medicine. A reader in community medicine is attached to the department who has wide experience and continues to have clinical responsibility in general practice. In the second and third year all students attend at least one of a series of alternative courses, in which they meet patients and learn to understand the impact of illness on an individual and his family, and see the community resources for the prevention and care of illness. Members of the Royal Australian College of General Practitioners teach and provide resources particularly in the courses on senescence and sex and society.

At the end of each course students in each group present their findings to the whole class of the year. I attended one of these final sessions, and was impressed to hear the enthusiasm of the students, and the understanding way in which they reported. Teaching in community medicine is carried out throughout the final three years, and includes attachment to general practitioners in the sixth year.

In the absence of a separate department of community medicine it does not matter which department is responsible for teaching in the subject, but what does matter is that the department selected is enthusiastic about teaching whole-patient care, is well led, and is supported by active general practitioners willing and able to give time to teaching. The team provided by the Department of Psychiatry and the South Australian Faculty of the Royal Australian College of General Practitioners is successfully fulfilling these objectives.

Flinders University

The medical school of Flinders University, ten miles south of Adelaide, plans its first intake of medical students in 1974. It proposes to appoint a professor of community medicine, and to base the teaching of primary medical care on special units, where new centres of population are developing near to the medical school. The concept is one of developing teaching practices rather than the use of established individual general practitioners as in Adelaide.

It is proposed at Flinders to introduce students as early as possible to patients. This will take place in the first or pre-medical year—as the dean says, " To see what they make of it." Plans for teaching community care are well developed in both the Adelaide and Flinders schools within a well-balanced curriculum.

Medical schools in Melbourne

Melbourne, the capital of Victoria, is one of the two great cities of Australia, and has two medical schools—the large and old established Melbourne University school, and the smaller young Monash University school. The Melbourne school is a great traditional school, and students have only an elective option of general-practice attachment of one week in their final year. Though the importance of teaching the whole of medicine is recognised, the usual difficulties of finance for a new department, and of altering the curriculum, are said to have prevented developments.

By contrast, Monash medical school is young, and has developed on less traditional lines. The first intake of medical students was in 1961. There is an active professorial Department of Social and Preventive Medicine, which includes a part-time lecturer with great experience in general practice. In the third year all students study in depth the social aspects of a patient seen in general practice, and there is a compulsory attachment of one week in the final year. Plans are being made for teaching by general practitioners in the fourth year, possibly in conjunction with developments for new methods of delivery of primary care, which will be mentioned later.

Members of the Victoria Faculty of the Royal Australian College of General Practitioners are ready and anxious to help to develop the teaching of primary medical care in Melbourne. It will be interesting and instructive to compare the career choices and interests of the graduates of the two medical schools in the years to come.

Medical schools in Sydney

To one interested in studying the contribution to be made to undergraduate medical education by general practitioners, New South Wales seemed to have the least to offer. Sydney has two medical schools the older, in the University of Sydney, takes 350 students a year, the younger in the University of New South Wales, takes 250. Together this is about half the total output of Australian graduates. I had no opportunity to visit either school, but understand that Sydney currently offers a small general-practice contact in the fourth year.

In the University of New South Wales it is proposed to establish a strong school of community medicine when the new curriculum is established. It is proposed to include

a division of family medicine which will offer general practitioners the opportunity to take part in undergraduate teaching, but the plans are not supported by some leading Sydney practitioners, who feel that control will be too much in the hands of professional teachers with little experience of general practice. Whether this be true or not, it is to be hoped that some general practitioners will join the school as part-time teachers. If they can prove their value and justify themselves, no doubt they will become increasingly influential. The opportunity to infiltrate should not be missed; this is the way in which many successful departments have been developed in the United Kingdom.

Because of the poor recruitment to general practice in New South Wales, and because of doubts about the curriculum of the established schools, interest of the New South Wales Faculty of the Royal Australian College of General Practitioners has centred round the possibility of establishing new small medical schools, in which the teaching would be strongly community based, with the objective of providing " A new type of medical graduate trained to deliver comprehensive health care." It is thought that a school of this type would redress the imbalance in the general-practitioner hospital specialist ratio in New South Wales. Detailed proposals for a school of this type have been drawn up for Wollongong University College and Wollongong Hospital.

There is no doubt about the enthusiasm of the hospital and local general practitioners for such a school, but whether the Commonwealth government accepts the scheme remains to be seen. I found the plans for Wollongong most interesting and original, but there seemed to be a danger in developing a school which is as rigidly community orientated as the older schools in New South Wales are said to be hospital orientated. The end result could be the production of two types of graduate rather than the basic doctor prepared to train as a postgraduate for any career in medicine.

Queensland University

In Brisbane at the University of Queensland, the Department of Social and Preventive Medicine has been active for many years, and teaching in the fifth year by local general practitioners is an important part of its work. This course consists of formal instruction and visits to practices, and is followed by two weeks full-time attachment to a practice. There is no general practitioner on the full-time staff of the department, but it is hoped to make an appointment soon, and to extend the contribution made by senior practitioners to teaching.

Australian and British ideas about what and how general practitioners can contribute to undergraduate education are similar. The primary objective is to ensure teaching in the whole spectrum of medical care. Improvement in recruitment to general practice, however desirable, remains a secondary consideration. In both countries there are difficulties in establishing these ideas in the more traditional medical schools. Though Britain is further ahead in establishing departments of general practice, it should not be long before appointments are made in many Australian schools.

Postgraduate medical education

A preregistration year is required in all states except Victoria, though in practice graduates from Victoria do fulfil the conditions so that they are entitled to register in other states or in the United Kingdom. An important difference from the United Kingdom preregistration year is that it gives a much wider experience, often four three-month periods for example in medicine, surgery, obstetrics and gynaecology and perhaps a rural hospital.

In both preregistration and later years Australian consultants have much less say than their United Kingdom counterparts in selecting their junior staff. Rotating appointments are made on a state basis; in Victoria, for instance, this is carried out by the State Postgraduate Education Committee, and in Queensland by the Director General of

State Health Services and the physician superintendents of hospitals. Consequently it is relatively easy to arrange suitable postgraduate rotations in preparation for various specialities, including general practice.

General professional training

Colleges are agreed in principle on a common programme for two years' post-graduate experience in hospital, which should include three months in general practice for all graduates. This is similar to the recommendations of the Todd Royal Commission for general professional training. The Royal Australian College of General Practitioners advocates that training for general practice should include an additional two years as a principal or associate in a teaching practice accredited by the College, so that the plans of the Australian College are similar to those of the Royal College of General Practitioners.

In Australia there is no money available to finance the salaries of trainees in general practice, or to pay principals for the time that they give to teaching. The Australian equivalent to a trainee in the United Kingdom must earn his keep from payments for items of service given to patients. Unless the workload of the practice is fairly heavy this could be at the expense of the principal, and this has presented obvious practical difficulties in establishing vocational training, despite the encouragement and enthusiasm of the Australian College.

Two-year rotations

A start has been made in two-year rotations after the preregistration year in all the four states that I visited, and some schemes are very encouraging, particularly where general practitioners are on the staff of the hospital. Some examples from places visited are mentioned to show the variety of experimentation that is going on.

At the Modbury Hospital, a new district hospital on the outskirts of Adelaide, eight two-year rotations a year are provided, which include three months in general practice financed by the state.

In Melbourne, at another new hospital, The Southern Memorial, where patients are cared for jointly by general practitioner and consultant, there are rotations, and this year arrangements have been made to include three months in general practice during these, despite the lack of state payments.

New South Wales finances a limited number of rotations and a very promising scheme has been developed at the Hornsby Hospital in the northern suburbs of Sydney, designed for doctors planning to enter general practice. Unfortunately the junior doctors in the rotations here have not been selected because they have chosen a career in general practice, and consequently there has been a high withdrawal rate. This appears to indicate the need for and the value of, an adequate career advisory service linked with the placement machinery.

The plans for an undergraduate school at Wollongong, 70 miles south of Sydney, have already been mentioned. This hospital seems particularly well suited for developing postgraduate education, as all the local general practitioners are on the staff, and the great majority of them have agreed to join a comprehensive programme for teaching teachers. As the area is under-doctored, there appear to be opportunities for trainees in practices to earn their keep, despite lack of state money to finance training.

In Brisbane the two largest teaching hospitals have set aside established registrar appointments to form general-practice training rotations. The Royal Brisbane Hospital has eight general-practice trainees, and the Princess Alexandra has three. In Queensland there is free access for primary medical care in the hospital, similar to the old hospital dispensaries in Scotland, so that appointments to the casualty departments provide

opportunities for trainees to deal with undifferentiated illness as it would present in general practice.

Comparisons with the United Kingdom

Day release courses in preparation for a career in general practice are held in Adelaide and Melbourne, though they are rather more scientific and technical than would be their equivalent in the United Kingdom. In all states there are courses for established general practitioners who wish to teach. With all these plans, experiments and preparations, it is clear that the scene is set for the development of vocational training in Australia.

Australian hospital consultants have a much less proprietary approach to junior hospital staff, and are much more ready to change them at short intervals than their counterparts in the United Kingdom. This attitude, with the agreement of the four colleges about common rotations for the first two years after registration, and the centralised system of making junior staff appointments, makes it relatively easy for all graduates to have broadly based postgraduate experience, which is usually suitable for those who intend to enter general practice.

On the other hand, the development of vocational training has been delayed by the absence of a scheme equivalent to the United Kingdom trainer-trainee system. Day release courses and career advice are not as well developed as they are in Britain.

It is a pleasure to be able to report that the Australian Government has accepted the advice of the Royal Australian College of General Practitioners and has now made a large sum of money available for the development of postgraduate education. However the trainees are to be paid, it is clear that finance is now available to provide the equivalent to the United Kingdom appointments of regional advisers, course organisers and trainers. This money may also help the faculties of the RACGP to develop continuing education. This has been developing on similar lines to those in Britain, and special emphasis has been given to the part that general practitioners themselves should play. It was of interest, but not surprising, to hear that though a high proportion of practitioners is anxious to attend courses, as in Britain there is the perennial problem of how to attract the hard core of non-attenders.

Perhaps because an important, though not numerically large, proportion of general practitioners work at great distances from centres of medical education, continuing education by means of correspondence courses has been brought to a high degree of sophistication. *Check Programme* is financially self supporting, and has a large number of subscribers, many of them from outside Australia. Subscribers complete a comprehensive questionnaire, and check their knowledge against carefully prepared answers. The standard of pictorial reproduction and printing is very high. *Check Programme* is particularly useful for doctors preparing to take the diploma of the Royal Australian College of General Practitioners, as the techniques used are similar to those used in part of the examination.

The examination of the Royal Australian College of General Practitioners

I was able to attend the oral and practical parts of this examination while I was in Melbourne, and as I have examined in the membership examination of the Royal College of General Practitioners it was of particular interest to compare the two examinations.

The purpose and methods followed in the two examinations are very similar. Both aim to assess knowledge, interpretation of facts, problem solving and the attitudes and behaviour of candidates. The Australians are also experimenting with tests of psychomotor skills, and have introduced a short practical physical examination. The examination includes a test in interpretation of x-rays, electrocardiograms and pathological findings, that is more comprehensive than the United Kingdom examination.

This test does not attract a big proportion of the marks available so though it will tend to help the younger doctor or the well informed older man, is unlikely to fail anyone who, though experienced, is not profoundly ignorant.

Because the practical as well as the written part of the examination can be taken in each state, the Australian Board of Censors has gone to much trouble to establish comparability between the results in different places. This has been achieved by using a marking system which looks complicated, but is in fact easy to use, and removes the danger of subjective emotional decisions by one individual examiner failing the candidate. Emphasis is laid on careful briefing of examiners, and score sheets are counter-checked to identify hard and soft examiners.

If the number of candidates for the United Kingdom examination becomes so large that it is found necessary to hold the practical in different places, it will be useful to study these aspects of the Australian examination. In the present United Kingdom examination, where only one centre is used, and all the examiners meet together to determine pass lists, the problem of varying standards in different centres does not arise.

Reciprocal recognition

I was able to speak to many examiners and candidates, all of whom considered that the Australian examination was both fair and appropriate. From listening to the oral tests, my impression was that the standard required to pass the two examinations is the same, and I therefore suggest that it is appropriate for the two colleges to consider reciprocal recognition.

The provision of primary medical care

Until the start of the National Health Service in the United Kingdom, it was common for appropriately qualified practitioners to carry out much surgery and major obstetric procedures in all but the undergraduate teaching hospitals. It is not surprising, therefore, to find in Australia, where the change to a clear division between general practitioner and specialist has been evolving more slowly, that particularly the older general practitioner is also a part-time surgeon. Generally, practitioners are not on the staff of state hospitals, but in the large towns there are many private hospitals, often run by religious orders, where general practitioners are on the staff and carry out procedures, as they are known. These hospitals are more common in South Australia and Victoria than in the other states, and are largely financed by the recovery of fees from the state governments.

In the large towns younger practitioners are less anxious to do surgery and the general-practitioner surgeon is gradually disappearing. A different situation may continue in the outback and the smaller country towns, which are not large enough to support a full-time surgeon. For this reason, particularly in Queensland, experience in anaesthesia or surgery is advocated in the training of the future rural general practitioner.

Flying Doctor Service

Nine tenths of Australia is so sparsely populated that it relies largely on the Royal Flying Doctor Service for medical care. For instance, the centre at Alice Springs serves an area of 500,000 square miles, with a population of only 12,000, and most of them live in the town of Alice Springs. This population is obviously not large enough to support a full-time surgeon, though there is a well equipped hospital. The local general practitioners must be prepared therefore to offer a full medical service. True, there is also the Flying Surgeon Service, by which a surgical team can be flown to the hospital, but there will be occasions when time is vital, or the airfield is closed due to the climate. Royal Flying

Doctor Service is a misnomer nowadays, as the doctor rarely flies to the patient, except for routine visits to larger stations and missions. Most medical advice is given at consultation over two-way radio, and if evacuation is required, a sister is flown to the patient, and brings him back to hospital in the aircraft, one of which is always on standby. Listening to the whole procedure it is apparent that it is carried out with no more fuss than a doctor in Britain carrying out a consultation by telephone and subsequently arranging admission to hospital by ambulance.

General practitioners in hospital

Though the days of the general practitioner carrying out specialised procedures in state hospitals may be numbered, there may well be opportunities for him in the future to attend his patients in hospital as a primary care doctor. I visited hospitals where general practitioners can admit their patients and care for them within their capabilities, sharing care with an appropriate consultant when necessary. This is the case in South Australia at Modbury, in Victoria at the Southern Memorial Hospital, Melbourne, and in New South Wales at Wollongong.

So far only stage one of 48 beds is open at the Southern Memorial Hospital, but the intention is to provide a complete medical service for patients, which will include specialist and generalist care, and general nursing and social support both in hospital and after discharge. All inpatients are admitted under the care of a general practitioner, who will be the one they normally attend if he is on the staff of the hospital, and they may also be under the care of an appropriate consultant if their condition warrants it.

I attended a case conference for inpatients being cared for by general practitioners, at which were present general practitioners, ward sisters, the hospital registration officer, physiotherapist, occupational therapist, social workers, district nurses and dietician. Patients' progress and needs were reviewed, and if they were thought fit for discharge a plan was made to supply any necessary support when they returned to their own home. Apart from obvious benefit to the patient, the conference, with a free exchange of opinion by everyone present, seemed to provide a unique and valuable form of postgraduate education.

Health centres

Group practices and health teams are not entirely unknown in Australia, and I visited one in Traralgon in Victoria which seemed to have exactly the same structure and function as the one to which I belong in Hampshire. There are health centres, in the British sense, in Canberra, though these seem to have been formed more to meet the local rules about property than from pressure by the profession, and I was not able to visit the Canberra experiments.

Monash University is supporting an important experiment in the provision of primary care at the Fawkner Park Community Care Centre in Melbourne, where local general practitioners, many of them working single handed from their own houses, can refer patients for help from a team which provides many services, including nurses, social workers, marriage guidance, home help, chiropody, and physiotherapy. This centre has not been open long enough for its value to be assessed, but it seems to provide a forward looking contribution to total medical care.

The Medical Directorate of the Queensland State Government is interested in the development of health centres, and is more socialist in policy than the other states. No decisions have yet been taken about where they should be established, or whether they should provide a complete service, including general practitioners, or develop more on the lines of the Fawkner Park experiment. I had several interesting discussions with

members of the Queensland medical directorate about the development of health centres. They were conscious that the first experiments must be successful if they are to convince the profession as a whole of their value and we agreed that the best place to start would be in expanding under-doctored industrial areas.

The fundamental belief of Australian general practitioners is in individual care and responsibility in the relationship between doctor and patient. Some degree of financial exchange is thought to be essential, as it gives the doctor greater freedom of action, and encourages fuller care and, at the same time, prevents abuse of the service by the patient. They may well be right in holding this view, but I think that it has caused the average general practitioner to be more likely to work single handed, to work longer hours, and to have fewer holidays, without having a much greater income than his colleagues in the United Kingdom.

It is understandable that Australian general practitioners should look upon the United Kingdom tendency to form groups of doctors with associated related health workers in health centres, with suspicion, if not fear. Though health centres may encourage a fuller service, with a greater provision for prevention and for meeting social need, and though they may lead to shorter hours and more holidays for the doctors, the Australians fear that these benefits are outweighed by a reduction of personal care. I am sure that the increasing interest by young graduates in the United Kingdom in general practice is largely due to the development of health centres and health teams, and so I believe that the poor recruitment in Australia would be improved more by altering the organisation of the provision of care than by any efforts to develop undergraduate and postgraduate education.

National Health Service

Because the Australian Government was proposing to introduce a comprehensive National Health Service, I found that great interest was being taken in the British Health Service, and that discussions at private and open meetings frequently turned to methods of providing care. In Australia change will come, but it must come by agreement with the profession, and must meet the needs of the country rather than be a copy of what has been successful elsewhere. The professions in both our countries have much to learn from each other, and visits by which experience and opinions can be exchanged are to be encouraged.

During the course of the visit I met many medical students and young graduates who had already decided upon a career in general practice, and could see little difference in terms of education, philosophy, outlook and aspiration, from those that I meet in the course of my day-to-day work in England. Exchanges between the two countries of students carrying out elective periods, and young graduates training for general practice, may prove to be a most rewarding experience.

I have tried to describe present day general practice in Australia, and to discuss its problems and the methods by which students and young graduates are educated. Inevitably the account has been coloured by what I have seen and the individuals that I have met, and may therefore be distorted, and for that reason no names have been mentioned. I hope, however, that the account, based on very short experience, is not too far from the truth.

THE FAR EAST

The final week of the tour was spent in making three short visits to Eastern countries, chosen because they had in common a tradition of western medicine, though each had a quite different type of Eastern civilisation. Singapore, a small island that had been a British crown colony; Bangkok, capital of the ancient country of Thailand, a large city with an underdeveloped peasant hinterland; and Karachi, capital of Pakistan, and part of the old Indian Empire, were the places chosen.

The purpose of these visits was to find out if the methods of providing medical care and of medical education were comparable with those of the United Kingdom, and if so, whether the Royal College of General Practitioners had anything to offer these countries in their development.

Singapore

Singapore has been an independent state since 1965, having been part of Malaysia from 1959 to 1965. The area of the island is 225 square miles, and the population is 2,100,000 of whom 60 per cent are Chinese. It has had the same forceful prime minister since 1959, and is developing rapidly as a centre of commerce, industry, trade, and as a world conference centre. Standards of living are rising, and about 80 new flats for workers are completed daily. Whereas five years ago there were only three European style hotels, there are now 27. Labour is reputed to be the only 'raw material' that does not have to be imported. Lack of water was a major cause of the fall of Singapore in the 1939–45 war, but local conservation of water is now much improved.

Singapore has about 500 general practitioners in private practice, and in addition there are about 100 doctors who run a free dispensary service in association with the state hospitals. The general picture of bustle and enthusiasm of the state seems to be reflected in the way of life of the private general practitioner, and in his ideas for the development of primary medical care.

He will work 12 hours a day for a six-and-a-half-day week, seeing patients at a rate of about eight an hour, and will charge Singapore $3–4 a consultation. (This is equivalent to 50p–60p, though such comparisons are somewhat meaningless.) The general practitioner is at a disadvantage in that he cannot refer patients to hospital, though consultations can be arranged privately with hospital consultants for about $35.

As a result, patients who need hospital care are advised to attend dispensary doctors, who also attend the poor who cannot afford a private general practitioner. Because the population is so concentrated, it is geographically possible for everyone to have access to a doctor, and there are no problems of isolated villages, calling for a *feldsher* type of medical assistant.

Inspired by the world movement to form colleges and academies of general practice, the Singapore College of General Practitioners was formed in 1970, and now has over 200 members. Its aims are similar to those of its United Kingdom and Australian counterparts. The first examinations for membership have already been held on the pattern of the Australian examination, and at the first, two Australian doctors attended as outside assessors. Regular weekly sessions are held for continuing education of established general practitioners, and the College co-operates with the medical school in teaching all final-year students.

The College is interested in establishing vocational training along the lines advocated by the Royal College of General Practitioners, but so far it has been possible to achieve little. The hospital part of vocational training is prevented by the paucity of junior

hospital posts in the Singapore hospitals, all of which, after the preregistration year, are needed for consultant training. The few hospitals posts that have been made for general-practitioner training are, for some inexplicable reason, paid at lower rates than equivalent posts for specialist training. Because the private general practitioners are quite separate from the state health service it has not been possible to devise posts equivalent to United Kingdom traineeships. An alternative might be to attach young doctors to dispensary doctors for postgraduate training, but the Singapore College does not favour this, as they work a traditional civil service office week, and do not offer continuity of care or an out-of-hours service. One of the professors in the medical school suggested that the answer may lie in the long run in improving the service given by, and the individual standards of, the dispensary doctors, who are already encouraged to join the Singapore College of General Practitioners.

The College is energetic and ambitious to take the lead in developing western styles of primary medical care in the Far East, a task that it seems able to fulfil. Its teaching is based on the ideas of the triple diagnosis in physical, emotional, and social terms. It has been suggested that the World Organisation of National Academies and Colleges of General Practice should, for some purposes, be regionalised, and it seems that Singapore could well become the centre of an Eastern Region.

The medical school of Singapore has an entry of about 100 students a year. At present general practice has a low rating by students, but this seems to be changing under the influence of the Singapore College and the Department of Public Health and Community Medicine, of which the Professor is vice-dean of the school, and a strong supporter of the College.

The medical school has selected 20 members of the Singapore College to organise fifth year teaching. At present this consists of a one week's full-time attachment to general practice, supported by a series of lectures on the nature and philosophy of general practice.

The Department of Community Medicine has responsibilities through the second to fourth year for teaching all students. All students in the second and third years are allocated patients who have been in hospital and who present social problems. These are followed up for nine months in their homes, and a report is made on rehabilitation, fitness for work, diet, and the impact of illness on the family. In the fourth year, groups of students spend a month studying all aspects of the health and social conditions of a selected community, which might be in Singapore or in a village in Malaysia.

The Singapore graduate of the future should, therefore, understand the problems of health and sickness in people outside the hospital. The Department of Public Health and Community Medicine is active and forward looking, and may, in due course, be able to chaperone a department of general practice.

The ideals of the Singapore College of General Practitioners are similar to those of the Royal College of General Practitioners. For geographical reasons Singapore has tended to look for its lead from Australia, but visits from appropriate experts from the United Kingdom would be welcomed, and would help further to develop general practice in Singapore.

BANGKOK

Thailand is an ancient independent kingdom with a population of about 35 million, which increases at the rate of about 1·2 million a year. Bangkok, with a population of three million, is the only town with a population of more than 100,000. Eighty-five per cent of the total population of the country live in villages, where the basic crop is rice. Buddhism is the religion of the Thais who form four fifths of the population, and the innumerable monasteries of this faith have a strong tradition as centres of teaching and healing. The remainder of the population is mainly Chinese. The universities and medical schools are based on the culture of the West.

The most pressing medical problems of the country are therefore those of isolated peasant communities with a high birth rate and a low standard of nutrition, adequate in carbohydrate from rice, but low in protein. General practice in the western sense exists only in Bangkok and the larger towns, and there is no incentive socially or economically to practise in the rural areas. Private practice flourishes in the towns, and there is a Thailand Family Doctors' Association, which has interests in medicopolitics and the academic side of practice, organising, for example, two-week postgraduate courses twice a year. In the private sector there are private and mission hospitals in Bangkok and the large towns.

The medical services of the country are mainly run by the municipalities and the Ministry of Health. Medical manpower is scarce and the doctor-patient ratio for the whole country is 1/7,000, but as this ratio is 1/1,000 in Bangkok, it falls to 1/100,000 in some rural areas.

Large municipal hospitals exist in Bangkok which provide the clinical material for the medical schools. Attached to these are dispensary services manned by salaried general practitioners to whom the patients pay a small fee according to their means. As the average annual income per head for the country is about US$150 the fee cannot be anything but small. As will be explained later, the dispensary outpatients' departments are used for the teaching of primary medical care.

The Ministry of Health provides two main services: the Medical Service and the Public Health Service. The first is responsible for 84 hospitals in the 72 provinces of Thailand, and the second for rural health centres in the 550 districts.

Health centres

A typical district covers about 300 square miles with a population of 50,000, and the only western type medical service is provided free at a primary health centre associated with eight or ten secondary health centres. The primary centre should have a doctor on their staff, though some do not. So far primary health centres have only been established in 300 districts. The primary centres are staffed by nurses, midwives and sanitarians, and the secondary centres each have a midwife and a sanitarian.

It is thus clear that rural Thailand has a very serious manpower problem as regards medical and related staff. The Thai peasant consequently has not yet learned to accept western style medicine, and though the services provided are free, the patient contact rate is only 0·2 per year. The peasant relies on herbalists, priests, pharmacists and quacks, for whose service he is prepared to pay.

It is in this context that the Thai medical schools are planning the training of doctors and nurses. The government supports the development of western medicine, and it is

interesting that in 1973 the Magsaysay Award, given to the doctor who contributed most to medicine in the country, was given to a practitioner in a rural health centre.

Medical schools

There are at present four medical schools in Thailand, which between them produce about 400 graduates a year. Two further schools are planned. I visited the two schools associated with the Mahidol University in Bangkok, the Siriraj school, which is the oldest school, and the Ramathibodi, founded in 1964.

The standard undergraduate course is of six years divided into pre-medical, pre-clinical and clinical parts. This is followed by a preregistration year which includes a spell in community care. After registration all graduates are obliged to do two years' national service. For many, this will take the form of one year in an urban hospital and one year in a rural health centre, where they have complete responsibility for 50,000 people.

After national service many doctors and also nurses emigrate to the U.S.A. Theoretically this could be to the great advantage of Thailand in providing advanced post-graduate training, but in practice the Thai graduates cannot compete successfully with U.S. graduates in obtaining good training posts, and too many emigrate permanently. This is a situation which can be compared with that of Pakistani graduates and the United Kingdom.

Paediatric department

I visited the Department of Paediatrics of the Siriraj Medical School which lays much stress on the importance of teaching community doctors. It was fascinating to see whole wards set aside for separate diseases such as enteric, tetanus, diphtheria, tuberculosis and purulent meningitis, any of which would be a rarity in an English paediatric department. Other wards are set aside for the investigation and treatment of, and research into, disease groups such as blood disease, renal disease, heart disease and nutritional disease. Despite this plethora of clinical material in traditional physical illness it was interesting to note that child psychiatrists and psychologists play an important part in the work of the department, and that problems in this branch of paediatrics are increasingly common.

All fifth year students attend the paediatric department for three weeks during the mornings, and in the sixth year six weeks full time as sub residents. This is interestingly similar to the programme at Southampton University. During the final year, time is spent dealing with undifferentiated material in outpatients, which is considered to be good training for the future primary care physician. It is also possible for students in the final year to spend a short spell attached to a general practitioner, though there is no specific department of general practice. The experience provided in the fifth year includes monthly visits to a child in its home from one month old to a year. The object is to study the development of the infant in the context of normal family life.

After graduation, two months of the preregistration year are spent in the paediatric department. It was interesting to find that one of the senior house officers was a young Manchester graduate on a Rotary Club scholarship.

The Ramathibodi medical school took its first annual intake of 64 students in 1964, and its first students qualified in 1971. One of its main objectives is to produce primary care physicians capable of taking charge of rural health care centres, and to define what the priorities and objectives of these centres should be.

At first I was surprised to find that despite these objectives there is no department of community care, and that the community health programme is designed by a commit-

tee with representatives from each of the main clinical departments, and that the chairman is the professor of surgery. I soon realised that this plan is quite logical, as there are no health services in most rural areas, and that the doctor in charge of a rural health centre must be surgeon, physician, obstetrician, and medical officer of health.

The 50,000 people who live in a district are not interested in preventive medicine, but like most individuals, as opposed to communities, their hope is for care when they are ill. Before they will accept western medical practice, they must therefore believe that it can cure, they will accept its ideas about prevention.

For this reason there is a considerable amount of surgery in the Ramathibodi undergraduate course, as successful health-centre physicians must be capable of carrying out Caesarean section, herniorrhaphy, and appendectomy, before the community will accept their health care advice.

The curriculum includes about three months in all of community care, and a health centre for a population of about 46,000, situated about 55 miles from Bangkok, is used for field teaching. Special emphasis is laid down on the ways in which health problems can be identified, assessed and managed using the criteria of seriousness, magnitude, manageability and concern of the community, as measures on which action is planned. As an example, groups of students carrying out surveys have shown that population control scores highly in each of these four criteria, and that intensive family planning programmes, using trained nurses, can be efficiently carried out.

Courses in community health include basic courses in epidemiology and public health; the methods by which surveys of needs can be carried out in a definable population; and practical work in a health centre during the sixth undergraduate year and the intern or preregistration year. The objective is to train physicians able to lead a team of health workers in curative, preventive and promotive health care.

Thailand is grossly under-doctored by western standards, and the government is anxious to introduce western medicine to the whole country. The medical schools, particularly at Ramathibodi, are studying ways in which this can be introduced to give the maximum benefit to the greatest possible number of patients, and to train doctors to carry out this task. This seems more rational than to train specialists to give spectacular results to a small number of patients with ' interesting ' but remedial conditions.

KARACHI

Situated in the province of Sind, Karachi is the rapidly growing capital of Pakistan, and the population has increased from one million to over three million in the past 20 years. With a total population of 60 million the country is going through a period of great economic difficulty, and there are severe restrictions on imports. Incomes are low, the average being 150 rupees a month, equivalent on international exchange rates to six pounds.

Though my visit to Karachi was short, it was very concentrated. I visited five practices, gave lectures followed by discussion at Dow Medical College and P.M.A. House, and the day ended with a dinner given by the College of Family Medicine, Pakistan.

There are 11 medical schools in Pakistan, three of them in Sind, which between them produce over 1,000 graduates each year, many of them women. As is well known, a considerable number of graduates are lost to the country through emigration.

The problem of distribution of doctors is similar to that in Thailand; a concentration of doctors in the great cities, and a paucity of doctors in the rural areas, where social opportunities are meagre, and salaries small. In Karachi there are about 2,500, giving a ratio of one to every 1,300 people.

PAKISTAN COLLEGE OF FAMILY MEDICINE

Though there are a few city dispensaries available for the very poor, private practice is the usual form of general practice in Karachi. A small and energetic group of general practitioners formed the College of Family Medicine, Pakistan, two years ago. Membership is still small, about 50, but they seem to have increasing influence with the Pakistan Medical Association, in whose building their headquarters is situated.

The College is a member of W.O.N.C.A. and its objectives are similar to colleges in other parts of the world, namely in all phases of medical education, and in the organisation of methods of providing medical care. The College has great difficulties in developing its ideas. For economic reasons it is extremely difficult for Pakistan general practitioners to travel abroad, and there are severe import restrictions on such elementary necessities as textbooks and medical journals. General practitioners from overseas rarely visit Karachi, and as a consequence the Pakistan College feels isolated. The climate of opinion in the medical schools is not yet conducive to the idea of teaching by general practitioners, and the pressure under which they work makes it difficult to see how general practitioners could find time for teaching.

Working conditions

General practitioners in Karachi frequently practise single handed from rented premises in bazaars. They work from nine in the morning until nine in the evening, with perhaps a two-hour break in the heat of the day, for seven days a week. During the working day they will see one to two hundred patients. One doctor I visited claimed to see as many as 500 patients a day. Treatment is provided as a part of the consultation, for which an average fee would be three to five rupees.

Many practitioners would like to form groups and work in purpose-built premises, but the cost of land and building and the difficulty of finding a suitable site, makes this impossible. Because the doctor must practise near his patients who must walk to see him, unless very ill, the custom has grown of hiring a small shop in a suitable position. The cost of this will be high, and premises grossly inadequate by western standards will cost R40,000 in key money, and a rent of R250 a month.

The surgery usually consists of a small consulting room, a dispensary, and two waiting rooms, as custom requires that men and women be segregated. The waiting rooms are small, and as a result many patients are seen waiting on the pavement outside. Appointment systems in these conditions cannot exist, but many doctors provide numbered cards which are handed to patients to indicate where they are placed in the queue. A dispenser is an essential, and often the only, member of the practice staff. They receive nine months training, and are entitled to work under the supervision of a doctor.

With such a large number of patients to see daily, it is not surprising to find little in the way of medical records. Usually records are limited to a prescription form, which serves the triple purpose of instructing the dispenser, indicating the likely illness of the patient, and providing a basic accounting system. These forms are carefully preserved as a subsequent basis for negotiation with income tax officials.

The general practitioner has little or no support from the hospitals. He has no access to pathology or x-rays, nor can he admit his patients direct to hospital beds. Access to hospitals is only through casualty outpatient departments, where primarily undifferentiated illness is sorted, and from which admissions are made for the most essential reasons only, as there is a severe shortage of hospital beds.

Because of the shortage of hospital facilities, and because most patients fear the hospitals anyhow, the general practitioner has to take complete charge of patients with such severe illness as enteric fever, meningitis, and tuberculosis, which are treated at home. Despite pressure of work the doctor must consequently find time for a considerable number of home visits. Women and children provide a large proportion of the doctor's work. Men tend to be healthier, as it is essential to spend much of the small family income on their food to keep them fit for work.

Custom requires that a man shall not carry out gynaecological examinations—even the examination of the female chest is not always acceptable—and there are therefore considerable opportunities for female doctors in general practice.

Despite the organisational problems and the vast amount of severe physical illness that must be treated, Karachi general practitioners are well aware of the problems of emotional illness, and the need for psycho-social work. As in all parts of the world, this aspect of medical care seems to be increasing, perhaps because it is increasingly recognised. Many doctors have overcome some of the difficulties of practising without access to diagnostic facilties. In two practices which I visited, a retired hospital pathology technician attends regularly to carry out simple tests, and private radiologists provide a relatively cheap service where a chest x-ray can be performed for as little as R10. I gained the impression that Karachi general practitioners work hard, and as efficiently as their circumstances allow, and there is no doubt that their patients have complete faith in them.

Though the medical schools are in the old tradition, firmly based on the diagnosis and treatment of physical illness in a hospital environment, there is an interest amongst the younger professors, particularly in such subjects as psychiatry, paediatrics and social medicine, in the need to teach about and to develop medicine in the community. Similarly, those who direct the health services in the Province of Sind are aware of the need to develop medical services in under-doctored rural areas, and to develop priorities that will improve health by improving primary rather than secondary care.

This account must make general practice in Karachi sound primitive to doctors engaged in the United Kingdom National Health Service, but it is remarkably similar to the reports we have of " corner-shop shilling a consultation, one and sixpence with medicine " practices that existed in English cities and large towns less than 40 years ago. With some economic improvement, and with a core of well-informed enthusiasts in the College of Family Medicine, Pakistan, general practice could and would advance rapidly.

CONCLUSION

However wealthy a country is and however much of this wealth is allocated to health care, increasingly sophisticated medical techniques will always lead to an increased demand for resources. It is more important to decide how much can be spent on medical services than how much should be spent. The vital problem lies in the allocation of the resources available.

The wealth of Australia and the standard of living of the individual is similar to that of the United Kingdom. The medical services of the two countries can therefore be contrasted from a similar base line. Because of this similarity there is great value in United Kingdom graduates visiting Australia to discuss those aspects of teaching and the provision of care that are more developed here.

In the Eastern countries that I visited the economic situation is very different from our own, and it might seem that the Royal College of General Practitioners has little to offer these countries; however, the underlying principles of medical care of the United Kingdom can be adapted and modified to meet the needs of underdeveloped countries.

From the viewpoint of national need it is not profitable to develop sophisticated services that may be available only for a few, if adequate primary care is not available for all. As the Royal College of General Practitioners is interested in primary care, it may have a more valuable contribution to make to underdeveloped countries than the older specialist colleges. I believe that there is an urgent need for United Kingdom general practitioners to visit underdeveloped countries where western medicine is practised, and that the College should accept the responsibility. Similarly there is a need for selected practitioners from these countries to study in the United Kingdom.

Overseas visits can take one of two forms. The first, a tour of several places to identify problems and express personal views or those of the sponsoring body. The second, to spend all the time in one place and take an active role in teaching or in developing new methods of teaching, or of providing medical care. The two forms could be combined in one tour in which most of the time available would be spent in one place, and the remainder in a tour, of which the purpose would be to identify the problems that could form the major objective of successive travelling professors.

The first two Wolfson Foundation Visiting Professors were given the widest possible brief and encouraged to plan their own ventures. An alternative might be to invite Colleges, University Departments or other general-practice organisations to apply for a visiting professor to carry out a specified task. The appointing committee would select what it thought to be the most deserving application, and then invite the most appropriate person to accept the Visiting Professorship.

The Wolfson Foundation Visiting Professorship provided me with a fascinating opportunity to see something of general practice, and of medicine as a whole, in a sophisticated and highly developed country, and to see something of how western medical thought is being used to establish systems of primary medical care in so-called underdeveloped areas, and to compare both with conditions in the British National Health Service.

As holder of the 1973 Professorship I have learnt a great deal from my tour, and hope that I have been able to give something useful in return to those places I have visited. Whatever the value of the tour, my wife and I express our thanks to everyone who gave us hospitality and gave up time to meet us, and in particular to the Wolfson Foundation who made the tour possible.