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BRITISH-COLOMBIAN HEALTHCARE MISSION

FINAL REPORT

Adrian Marston, MD
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UST OF CONTENTS

Pág.

FOREWORD BY HER MAJESTY'S AMBASSADOR TO COLOMBIA HIS EXCELLENCY SIR THOMAS DUGGIN

It is with great pleasure that I accepted the invitation to provide the foreword to this report.

The area of healthcare is one, I know, that is of immense importance not only to the Colombian people themselves, but also to Colombian Government Ministers. And I am very pleased that ASCOFAME – through the leadership at that time of Dr Julio Ospina Lugo – decided to look at medical education and practice in the UK as a benchmark to what could be achieved in Colombia, especially in the areas of primary care and medical education.

Since the last Conference in October 2001, the British Government has devoted a lot of resource to helping identify those areas where some lessons could be learned, and I am particularly grateful to Dr Adrian Marston not only for leading the three visits by British academics and for his tireless work during those visits, but also for his co-editorship of this report. The list of those to thank is very long, and whilst I cannot list them all here, tribute is paid to them elsewhere in this report. I very much appreciate their interest and all their efforts.

I have followed the process with interest over the last three years, and participated in many of the events here. But the key question is now: where do we go from here? The British teams who visited have come with a number of recommendations which it is hoped will be helpful to Colombia. The choice of how far the recommendations can or will be introduced is one for Colombia and we will support them in any way we can in this process.

I wish all attendees an interesting Conference, and every success for the future. I am only sorry that I will be unable, personally, to participate on this occasion.

SIR THOMAS DUGGIN

MESSAGE FROM THE PRESIDENT OF THE DIRECTIVE COUNCIL OF ASCOFAME, DOCTOR ROBERTO ESTEFAN CHEHAB

The opportunity to collaborate with a nation more advanced than our own has not occurred for more than half a century, when in 1953 we received the last North American Mission. With the hard work of ASCOFAME and the firm support of the British Government and their Embassy in Colombia, we have now arrived at the culmination of three years' intensive effort, during which we have shared experiences, anxieties, disappointments and dreams with our expert friends from the Mission sent by the British Government to visit the Medical Faculties of this country.

We are at present at a time of radical change: our country has arrived at a crucial stage in which reconsideration of the social scene plays a vital role. Medical education has had to confront profound revisions and adjustments. It has been compelled to adopt a course which has served to realign curricula and plans for development and thus to rethink all of its visions and strategies, so as to adapt itself in a clear manner to the needs of the community, from the parochial up to the international level.

The collaboration of the British government at such a critical juncture in revising our educational obligations has been invaluable and a central component of the task of the Mission, as with them we have been

able to advance our methods of estimating quality, and define the opportunities for revision of medical training in Colombia, with the guarantee of a completely objective and autonomous process. That gives us the hope of continuing schemes for improvement that will result in the achievement of satisfactory training procedures, not only at undergraduate and postgraduate level, but also in the practice of high quality medicine, relevant and attuned to the true needs of our society.

Another important consequence of this Mission lies in the area of public health, both in the promotion and prevention of illness, in which our British friends are acknowledged to hold a worldwide expertise, especially in the field of family medicine, a particular strength of the British NHS. We hope to achieve a synergy in which this knowledge and the sharing of different experiences will enable us achieve this noble objective, namely the practice of a humane and socially aware type of medicine, the outcome of high quality training.

Finally, I wish to thank all those involved in this historic mission, which will culminate in the Colombo-British Conference in Medical Education and Practice. Particular thanks are due to H.E. Sir Thomas Duggin, British Ambassador to Colombia, and a true friend of this country. I am grateful also to the Deans of the Faculties of Medicine throughout the country, to the Colombian Association of Medical Faculties (ASCOFAME) for the magnitude and importance of their efforts, and to Dr Julio Enrique Ospina Lugo, the organizer and guiding spirit of the whole enterprise.

Our commitment is only just beginning. We must now unite our efforts to ensure that this Mission gathers strength. We are determined to expand from now on, and we hope to continue to rely on the logistic and academic support of the government of the United Kingdom in the furtherance of this enterprise.

MESSAGE FROM THE EXECUTIVE DIRECTOR OF ASCOFAME, DOCTOR RICARDO H. ESCOBAR GAVIRIA, M.D.

The complexity of the present context of education and medical practice in this country poses great challenges for ASCOFAME, which will define its role over the coming years and its capacity to positively influence our immediate field of action, in order to encourage more balanced and socially responsible healthcare and educational systems for the welfare of our population.

Colombia is presently undergoing a turbulent phase in the development of the reforms which have marked education and medical practice over the last decade. Several aspects of the impact of these reforms have been identified, and the questions posed from various quarters have either condoned or condemned them.

It is however worthwhile considering the impact that the reforms included in Law 30 of 1992 and Law 100 of 1993, have collectively had on the development of our fundamental mission: the training of appropriately professional doctors.

The quality of our professionals, some of whom can be found in the top echelons of educational institutions, depends on many factors, over which, those who have faced this challenge responsibly, have

been able to take control in order to respond effectively to the role that society has given them. Others however, are not directly involved in the internal circles of the universities and their programmes, and therefore have no bearing on the actions of these institutions.

During the session of the Colombian-British Mission in Medellin, I had the opportunity of providing details of a study carried out by ASCOFAME which indicates that the global quality of our medical graduates has deteriorated over the last 10 years. This is, in great measure, a result of the applied reforms, together with a proliferation of medical programmes that, in many cases, have not responded to the minimum quality criteria required since their creation, and the deterioration and disappearance of qualified centres of medical practice.

The work towards the achievement of quality medical education, not in any structured way, but as a day to day commitment, defines the role of ASCOFAME. The British Medical Practice and Education Mission is now submitting its recommendations and conclusions, which instead of marking the end, is in fact the beginning of a process that will require profound reflection and adjustments. Many of these must be institutional while others relate to global training policies. In both cases these must be adapted to our own circumstances.

The effort made by ASCOFAME and its leading faculties and Deans, with the cooperation of the British Government and especially with the commitment and unreserved support of the British Ambassador in Colombia, Sir Tom Duggin, to whom we wish to express our deepest thanks, is an example of nation building.

The contribution made to our country by ASCOFAME would not have been possible without Doctor Julio Enrique Ospina Lugo, Manager and Director of this Mission, and who I am honoured to succeed

as Director of ASCOFAME. It was he, who with his vision of the country and his limitless tenacity, has brought us to this point in the process. We are now left with the great responsibility of taking the recommendations of this Mission and putting them into practice to obtain the results we wish for. On behalf of his friends and colleagues I would like to express our sincere thanks.

BACKGROUND

1. SOME FACTS AND FIGURES

Britain and Colombia have a shared history.

Like many South Americans engaged in the early 19th century fight for independence, Simon Bolívar considered it vital to enlist Britain's help. Indeed, the inscription on his statue in Belgrave Square in London reads: "I am convinced that England alone is capable of protecting the world's precious rights, as she is great, glorious and wise."

London became the centre of operations for Bolívar for raising funds, recruiting volunteers and buying arms for the patriot cause. In 1816, Bolívar's agent, Lopez Mendez, recruited the so-called 'British Legion' from veterans of the Napoleonic wars eager to find new employment. The first British ship set out in 1817 and by mid-1820 more than 50 ships had left Britain and Ireland, carrying over 6,500 men.

These soldiers fought for independence under Bolívar and distinguished themselves. Many died in a heroic march across the Cordillera to meet Santander in Colombia. They fell prey to altitude sickness and freezing temperatures. Once in Colombia, the British Legion fought valiantly under the command of Colonel Rooke at their first major engagement at Pantano de Vargas on 25 July 1818.

The British Legion went on to fight in the battle of Boyaca in 1819, which was the decisive victory in the liberation of Colombia. It was this battle which enabled Bolivar to proclaim Colombia (then Nueva Granada) a republic independent of Spain. Bolívar later described the British volunteers (after the Battle of Carabobo in Venezuela) as "The Saviours of America".

British naval officers also served under Bolívar, and in 1825, John Illingworth was appointed to the command of the combined fleets of greater Colombia and Peru.

Bolívar always had a number of British subjects on his personal staff. Some of the most renowned were: O'Leary, O'Connor, McGregor, Ferguson (who was killed defending Bolívar from assassination in 1828) and Wilson (who was with Bolívar during the last days of his life).

The first Colombian constitution that Bolívar proposed drew heavily on the ideas of British philosopher John Locke. Also, at the Congress of Angostura in 1819 (to draw up a constitution), Bolívar proposed a form of government which embodied many of the features of the British political system. Schools were set up in Colombia under President Santander, modelled on those of the British education reformer Joseph Lancaster (1778-1838).Official recognition of Colombia as an independent state was established under the Canning government by the Gual-Campbell Treaty of April 18, 1825, which also granted commercial reciprocity and agreed on co-operation to abolish the slave trade. However, the country had been given *de facto* recognition in 1822, when the Castlereagh government decided to recognise the flags of South American ships, while Canning sent out consuls-general in 1823.

British traders, investors, technical advisers and financiers played a part in developing Colombia's economy and its nascent industry. British

loans supported Colombia's finances, and London was the primary source of public external borrowing until the 1920s. Britain was also Colombia's most important trading partner, exporting £451,000 worth of goods in 1825 and importing £90,000 worth of Colombian goods. Private investment was also important, particularly in financing railways and in the mining industry. British investment in railways grew from £1.17mn in 1875 to £6.14mn in 1913, while £631,500 was invested in mining between independence and 1825.

Today, Colombia contains 44 million inhabitants, 71% of them living in the urban areas, the proportion of sexes being roughly equal. The country is divided into 32 departments, 4 districts and 1079 municipalities, each of which has its own Mayor. The life expectancy is 71 years. 28 million persons live on less than two dollars per day, equivalent to roughly 50% in defined poverty. Unemployment runs at 14% which is equivalent to two or three million, and overall illiteracy is at 10%. Except in the more affluent urban areas, water and sewage facilities are inadequate. Colombia has experienced intermittent civil war over the last 40 years, which has resulted in some three millions of displaced persons dispersed around the country. Clearly, this is one of the most important factors that hinder efficient and equitable delivery of health care.

The main causes of morbidity in children are respiratory infections, parasitosis, meningitis and malnutrition, and in adults cardiothoracic disease, violence (97 out of every 100,000 inhabitants) and cancer. Maternal mortality is some 71 per 100,000 live births. Health expenditure is roughly 10% of GNP (cf. the UK's expenditure at 6.9%), which is equivalent to $US 216 per patient per annum. Delivering this care are some 57,000 doctors (10.36 per 10000 inhabitants, as compared with a worldwide proportion of of 25.64), of whom 37000 are "general doctors" and 20000 are specialists. The doctors are concentrated in the urban areas and the more affluent parts of the country. In the capital. Bogota, the number of specialists

exceeds that of general doctors. Less than 1% of doctors are trained in family medicine. General Doctors hold the diploma of "medico-cirujano" but have had no postgraduate training.

In the last ten years there have been important reforms in the country that have substantially affected medical education and medical practice. In the health sector, these include political, administrative and fiscal decentralisation of the municipalities, and the creation of the General System Social Security and its health component.

Furthermore, the Superior Education reform, with Act 30/92 led to an uncontrolled development of badly understood university autonomy. The first element of the health reform was aimed to decentralise the organisation of health services, to states and municipalities, with the nation taking for itself the benefits of policy definition and control of the economical infrastructure. The political, administrative and fiscal decentralisation of the regions, and specifically, in health, meant the disappearance of many areas under the new concept of local and regional autonomy.

The structural changes in the organisation of the Health System, generated a new way to manage the health services, prioritizing processes aiming to improve economic efficiency, at the expense of the social outcome. Proponents of the current scheme of health service organisation maintain that the presence of the University increases the costs of health supply, but this does not take into account the well-attested added value that University activity generates in the Hospital. Contracts that are designed to contain hospital costs do not facilitate teaching.

All of he above, as well as the proliferation of medical faculties encouraged by Act 30192, has led to a deterioration in the quality of training of health professionals. The Health Institutions, public and private, charge the Universities for receiving their students, in order

After lunch we returned to the historic and impressive Aula Maxima of the University, where communications were received from Dr Ospina, Mr. Marston, Professor Williamson and Mr. Brearley. The evening was given over to entertainment, but useful discussions were raised over the dinner table, and a number of unresolved problems related to medical education in Cauca, and in particular in Popayán were raised. The next morning was devoted to a cultural tour of the City, and in particular to the Casa de Cultura and to the Arts Centre, where a member of staff from Alvaro Lopez instructs families from the neighbouring districts in handicrafts, which they then sell at a modest profit. Surely this exchange of ideas between the indigent population and the educated classes, taken together with the student activities in the Popayan area, represents a step (albeit very small) in the right direction towards solving the cultural and social problems of Colombia

We returned to Bogotá the next morning and on arrival at the airport were driven .to the resort of Paipa, in Boyacá province.

Days 7 & 8 - Saturday, Sunday 28-29/2/04

These were "free days" and enabled us to visit the historic sites of the battle of Boyacá and the village of Villa de Leyva, but the time was not entirely wasted in that the delegation had the opportunity to reflect on the past few days' experiences and to compare notes and consolidate their ideas.

Day 9 - Monday 1/3/04

We arrived at 8.00am at the Fundacion Universitaria de Boyacá in Tunja where we were greeted by the Rector, **Dr Osman Correal Gabral,** and the Dean **Dr Manuel Bustamante**. The Foundation is 25 years old. The facility comprises 4,000 students, 70% of whom are from the Boyacá region. This private medical school which was founded ten years ago, has 480 students, the acceptance rate being

II. BASIS OF THE MISSION

Antecedentes

The first medical school in Colombia was created in 1636 and the first medical faculty at the Central University was opened in 1826. Up until 1960 there were seven medical faculties in the country, namely those in Antioquia, Caldas, Cartagena, Cauca, Javeriana, Nacional and del Valle. Following the visit of a mission from France in 1931, medical education in Colombia was largely carried out along French lines, but in 1948 the North American unitary medical mission visited the country and recommended a reorganization of training following the Flexner programme, consisting of two years of basic science, and four years of clinical studies, followed by a year's internship. There was a second United States visit (the Lapham mission) in 1953. One of its recommendations was the creation of ASCOFAME.

In January 2000 a meeting was held in Leeds (UK) concerned with health care and social security in Latin America. Dr Julio Ospina, at that time Executive Director of ASCOFAME, contributed a presentation to this meeting, which aroused great interest, and that was the origin of the Anglo-Colombian health care project. Dr Ospina expressed his appreciation of the positive elements and helpful suggestions made by previous visitors, but pointed out that due to demographic and societal differences, none of these had produced a scheme which could be adopted by Colombia in its entirety and attention had therefore been directed to the United Kingdom. Dr Ospina enunciated five reasons for the interest that ASCOFAME had taken in British medicine. These included the traditional stability of British society, its emphasis on equality, the 'free end point of delivery' nature of the National Health Service, the scientific basis of treatment options and, most importantly, the accent on the provision of primary care. The economic and social advantages of the gatekeeper system, referred to as the 'medical filter", were emphasized.

From 30th September to 4th October 2001 a major conference took place in Bogotá, under the auspices of ASCOFAME, the British Embassy in Bogotá, the British Council, and the British Government represented by the Department of Trade and Industry, who gave considerable financial support. Additional support and sponsorship was provided by Astrazeneca Colombia SA, Glaxo SmithKline and the Camera de Proveedores de la Salud. The conference, which was attended by some 1200 delegates from Colombia and the UK, covered many aspects of healthcare and medical education, and led to the decision to initiate a joint study of the present situation of Colombian medicine and medical training. with a view to producing recommendations that took into account British experience in these areas. This decision was formalized at a meeting of the Executive Committee of ASCOFAME (meeting 155) held in August 2002 (see References)

In February 2003, with the support of ASCOFAME, a delegation of Faculty Deans, representing the Board of Directors, visited the United Kingdom for a week to observe the functioning and operation of the National Health Service as well as the British approach to Medical Education. They received presentations from the GMC, the Royal Society of Medicine, NICE, CHI, the Department of Health and other bodies, and visited a number of medical schools throughout the country. This visit was reported in full by Dr Gustavo Pradilla, Dean of the Medical School of the Industrial University of Santander, and his report appears as Appendix.

This mission was followed up by visits to Colombia on the part of British medical experts. The **first visit** was in March 2003, to Bogotá, Bucaramanga, Barranquilla, and Cartagena. In November 2003 the **second mission** took place, this time to Bogotá, Medellín, Manizales, Pereira and Armenia. The **final visit** was in March 2004, to Bogotá, Cáli, Popayán and Tunja. (It was intended also to visit Neiva and Ibagué, but local circumstances made this impossible, and written and verbal reports were received from those medical schools). Over

the course of these three missions all of the 26 medical schools affiliated to ASCOFAME have been visited, and each mission was the subject of a detailed report, which are attached as Appendices.

III. PURPOSES, AIMS. CONSTRAINTS OF THE REPORT

The purposes of this Report are to record the progress achieved by the visit to the UK by the Colombian Deans in February 2003, to profit from the experience gained by the three outward missions from the UK to Colombia, and to give an account of UK practice and to compare that with what obtains in Colombia at the present time. As a result of this we aim to make useful recommendations that will influence Colombian practice, and at the same time to promote UK interests in the Republic of Colombia. There are two guiding principles. Firstly, whatever reforms are recommended to training and service in Colombia, these must be designed to meet the needs of the population rather than those of the medical profession, although the two do often coincide. Secondly, high technology medicine in Colombia is well-developed and stands in no need of comment, and it is our unanimous view that the principal contribution that the UK can make is in the area of promoting education and practice in primary care.

During the course of the exercise, the previously determined areas of study have been modified by the experience of the various missions. The original plan was to concentrate on four areas, namely (i) the core (nuclear) curriculum, with optional (flexible) additions; (ii) the relation between teaching and clinical responsibilities; (iii) evaluation and accreditation; (iv) research, and inter-disciplinary relations. On the basis of experience, and by agreement with ASCOFAME, these criteria have been revised and the Report will now consider:

- The undergraduate curriculum
- Research

- Evaluation/re-accreditation/registration, both of institutions and of individual practitioners
- Postgraduate training in hospital-based specialties and also in family medicine, with special emphasis on training activities within the community

There are some major **constraints** on our work which we fully recognise. In the first place it must be made clear that we are clinicians and teachers, rather than administrators or health economists. As a consequence, some of our recommendations, however desirable, may not be attainable in the short term, through political and economic circumstances, bearing in mind the profoundly differing social conditions in our two countries. Nonetheless, from discussions with Colombian colleagues and from our experiences in the 26 centres visited, we remain convinced that the UK experience can provide valuable targets. In the second place, we have only experienced a small proportion of the total geographic area of the Republic, extending from the Caribbean coast through the central regions including Bogotá, and extending as far south as Cali and Popayan. For security and other reasons it was not possible to visit large areas of the country, and although these areas themselves do not possess medical schools, they nonetheless present the government with very severe problems in the efficient delivery of health care to the whole population. Additionally, because this is a joint exercise with ASCOFAME, we have not had contact with the remaining medical schools which lie outside their jurisdiction. We have not addressed in any detail the problems of mental health, and the role of the nursing profession and ancillaries have lain outside our remit.

IV. PROFILE OF MEDICAL CARE AND EDUCATION IN THE UK – THE NHS

In the UK general practice/primary care/family medicine (the terms are almost though not quite interchangeable) forms the basis for the

delivery of health care and hence of medical education. Primary care is a specialty with its own rigorously controlled and supervised training system.

Since 1948, and now almost uniquely in the developed world, medicine in the UK is overwhelmingly provided and funded by the State, through central taxation. It is "free at the point of delivery". There is a vigorous and flourishing private sector, but this only accounts for some 5% of healthcare expenditure. There is nothing equivalent to a Colombian EPS. Care is delivered through NHS Trusts, which are semi-autonomous bodies encompassing a range of resources and services. Thus an ambulance service, or a group of hospitals could form a Trust, with its own Executive Committee and Chairman. Over the last few years much power has been devolved to Primary Care Trusts which consist of a number of GP's who together can purchase facilities from hospitals and other providers of secondary care. This has increased the extent of competition between hospitals, whose budgets are to a great extent dependent on achieving support from PCT's, and there is a certain element of competition between PCT's as the patients have a choice (limited of course to some extent by geography) of the doctor they wish to treat them.

It is not argued that the British NHS is the best system in the world for caring for the sick. It has many deficiencies, such as long waiting lists, a top-heavy and expensive bureaucracy, failures in communication and a number of hospitals that are still sub-standard. The NHS has nonetheless stood the test of time, in that it has been in place for more than fifty years and still commands popularity, and popularity is a good democratic measure of success. The service is in sharp contrast to the system that operates in the United States, and over the years the American Medical Association has been very critical of it. No other country has adopted the system in total, but many have come up with partial imitations. The NHS has been subject to many reforms

and minor revisions, but any government that proposed to abolish it would be unelectable.

There are no private medical schools in the UK. There is one private university but up to the present time it does not train doctors or nurses. Each one of the 30 British medical schools is attached to a state supported University. There is a limited number of places in the medical schools, and entry to them is competitive and achieved on the results of state examinations taken at secondary school, supplemented in some cases by report from the head teacher and an interview. By Colombian standards the fees charged are modest, and each student is heavily subsidized by the state. The schools are free to, , raise private money, and indeed are encouraged to do so, but effectually are under the control of the Departments of Education and Health. This may give the impression of rigid and bureaucratic system but in fact it is less so than might seem, as schools have complete autonomy in devising their curricula (provided always that it reaches the standards laid down by the GMC). (See below)

V. PROFILE OF MEDICAL CARE AND EDUCATION IN COLOMBIA

The whole situation of health care in Colombia was profoundly altered by the passage of Law 100 in1993. Up to that time, distribution of medical resources had been, as in many Latin-American countries, somewhat chaotic and unorganized, in that apart from a highly privileged and élite private sector, and a rather random and uneven distribution of health care to the poorer classes, there was no legally defined structure for medical services. The aim of Law100 was to restructure health care provision, so as to equate public and private money into the provision of a reasonably fair and equitable service.

Leaving aside the small private sector (which accounts for only approximately 5% of the whole), the main categories of the scheme cover the contributory group, which includes those in stable employment, pensioners and the self-employed with an income of at least twice the national minimum wage. Both the employee and the employer contribute to the scheme. The employee joins a health scheme with a Empresa Promotora de Salud (EPS) (Health Promotion Company), of which there are 24 in the country. In turn, the EPS contracts medical cover with the IPS (which can be a hospital, a laboratory or a primary care centre), there being 12,000 regulated and 20,000 unregulated such entitities all over the country. Also, around 800,000 people in the contributory system enhance their cover with additional prepaid medical insurance.

The subsidised group includes self employed workers with an income of less than twice the national minimum wage, and the lowest socio-economic strata of the population . Approximately 10% of the funds originating from the contributory group are allocated to its financing, The services provided to this group are necessarily more basic. In addition, some 800,000 people in the contributory system top up their health care by buying extra insurance, and money earned in this way is passed down into the subsidised system. Thus, the 13 million participants in the contributory system, and the 11 million who form part of the subsidised system, represent around 54% of the population of Colombia. The people whose income does not allow them to participate in any of the mentioned schemes must rely on charity or the basic services provided by the State and are referred to as associates. They are dispersed in different locations all over the country and have no Social Security of any kind, and constitute approximately 48% of the population.

The health and education reforms (Law 10 of 1990, Law 100 of 1993 and Law 30 of 1992) had the effect of decentralisation, with the election of local mayors and the confirmation of autonomous universities. This

brought about an increase in educational programmes, with a decrease, due to closures, of university hospitals, and a growing demand for good training at a time of a reduction in resources. In 2003, the Health Ministry was integrated with the Ministy of Social Protection. There are 904 health centres all over the country, with 128 having more than 50 beds.

To date, there are 51 Faculties of Medicine in Colombia, 15 of which are public. The fees paid by students vary considerably. For the public faculties the average is US$700 per annum, while the private faculties are US$3,500 per annum. Twelve public faculties, together with another 14 private ones, are affiliated to ASCOFAME. Each faculty of medicine is registered with a University, and the universities are regulated by the Ministry of National Education. Authorisation by the government is required to establish a public or private university.These schools are accredited by the National Council for Accreditation (CNA), which is attached to the Ministry of Education. The CNA is an entity dependent on the Ministry of Education. Its remit is wide-ranging and it is responsible for the promotion of high quality, voluntary accreditation processes for faculties in every discipline, not only medicine, and its conclusions are legalised by the Ministry of Education. It has a limited quota of members, and as a result, is supported by academic peers. ASCOFAME has also supported the CNA in the establishment of quality standards in medical training. In 2001, the Ministry of Education set a requirement of mandatory qualification, which take into account the basic quality standards for those programmes and faculties that are not accredited by the CNA.

At the end of the training period the school confers the diploma of 'medico-cirujano" (see above) which entitles the graduate to register with the Ministry for Social Protection, and practice as a doctor. There is a final state mandatory examination to assess the quality of the training programme, but (except in one particular medical school) graduates can obtain their diploma without having passed it. The

purpose of the examination is thus to assess the teaching rather than the standard attained by the student. There are three grades, high, medium and low. In 2003, 36 faculties entered the programme with students in their last year.

THE UNDERGRADUATE CURRICULUM

THE UNDERGRADUATE CURRICULUM IN THE UNITED KINGDOM

Until the late 1980s, almost every medical school in the United Kingdom provided an undergraduate curriculum which was roughly based on the Flexner model. That is to say that the course began with a year or two of pre-medical sciences, including physics, chemistry and biology, generally taken at the end of secondary school education, followed by an assessment which formed the basis of admission to a Medical School. In the Medical School there followed two years of pre-clinical science, namely anatomy, physiology and biochemistry, with, more recently, the addition of some subjects as psychology and sociology. This again was tested by examination, and was followed by three years of clinical training beginning with medicine, surgery and obstetrics/gynaecology, and then progressing to 'specialist' subjects. Each of these disciplines was taught in isolation by experts in the individual clinical speciality and there was little cross-communication between the various teachers. The final examination culminated in the award of a University degree, which entitled the student to be registered as a medical practitioner and to practice under supervision for one year. Successful completion of this pre-registration year entitled the young doctor to full registration with the General Medical Council, and thereafter the right to individual independent practice. Theoretically, any doctor whose name was on the register could pursue a speciality,

but in practice it was necessary to undergo a course of higher training and the acquisition of a specialized diploma, before he/she could be considered for appointment as a hospital specialist in the National Health Service. This, however, did not apply to primary care, and up to some twenty years ago a young doctor could go straight into a practice as a junior partner, on occasion joining his parents in an established family practice.

All of this has now undergone radical change, stimulated by the publication in 1993 (revised in 2002) of the document 'Tomorrow's Doctors' ( ) by the GMC. Whereas in the past basic science and clinical practice were rigidly separated, the emphasis today is upon integration, so that the student is introduced to patient contact at the very beginning of his/her medical course, and as the course progresses there is a parallel increase in the amount of clinical contact, but at the same time basic sciences are continued, right up to the time of the final examination. An example of this is the curriculum devised by the Medical School at King's College London, which in outline is as follows.

The course includes components of both 'core' and optional modules, and aims to produce a competent and reliable pre-registration House Officer. The underlying principles are those of vertical and horizontal integration. By vertical integration is meant the continuing combination of basic science and clinical studies over the four-year core course. In year one there is heavy emphasis on basic science with a small clinical component, and this ratio is progressively reversed, so that by the time that year four is reached, the training is heavily directed towards the clinical aspects. By horizontal integration is meant that instead of teaching a series of "...ologies", in separate packages, clinical problems are addressed by a variety of contributing specialists, including basic scientists. Thus, to take an example, anatomists and physiologists, anaesthetists, respiratory physicians and pharmacists, general practitioners and cardiothoracic surgeons would be assembled

to discuss a patient with chest pain. Teaching takes place in small group seminars, one-to-one tutorials in general practice, and is spread through the main University hospitals, District General Hospitals and local practices. There is a strong emphasis on the importance of primary care throughout the whole of the course. In depth studies are undertaken throughout the course as "special study modules" in a range of subjects including basic science, clinical studies and non-medical subjects in other faculties.

In contrast, the course at Imperial College London, is based on a rather different philosophy. By tradition, Imperial is an institution devoted to science and technology, and the accretion of a School of Medicine was a comparatively recent development. Imperial has thus decided to play to its strength, and provide a course which laid emphasis on the scientific basis of medicine. Central to this idea is the inclusion of a mandatory BSc year (the ICL equivalent of the KCL "special study modules"), during which the student studies a chosen area in depth, and acquires a scientific diploma. A few students, who are particularly scientifically minded, could go on to study for an intercalated PhD. In the Imperial system, the basic and clinical subjects are regarded as 'core', but there is considerable flexibility in the BSc component.

STUDENT ELECTIVES. Towards the end of their clinical course, that is to say in the fourth to fifth year of training, British medical students are encouraged to undertake what is known as an "elective period". This comprises some four to six weeks during which they organize for themselves a programme of study outside their own medical school. Some students visit other centres within the United Kingdom, but the majority choose to go abroad.

There are a number of scholarships and funds which help them to fund the expenses.of the trip, and in exceptional circumstances the medical school can help, but by and large the student is expected to

make the major contribution out of resources that they find for themselves.

The nature of the chosen projects varies widely. Some students go to high technology centres in the United States, continental Europe or Australia, where they carry out laboratory based research, but many more choose to go to third world countries, particularly in Africa, working in mission hospitals or isolated rural communities. At present, the comparatively small number who have spent their elective period in Latin America have visited Peru and Ecuador. Colombia has a great deal to offer our students and it is likely that many young Colombians would welcome contact with a British student of their age. To that end ASCOFAME has come forward with the names of some Colombian medical schools who are interested in receiving a student under this scheme, and a number of students from the UK have already made arrangements to go. there. Their reports are awaited with interest. As stated, these students are self-funded and would expect to pay for their own travel and accommodation. The Colombian host is asked to provide advice on security and safety and on local customs, and suggest ways in which the British student could contribute to the local educational programme and in turn learn something from it.

Ideally, this would be a two way process, in that Colombian students would be accepted in the UK within a similar scheme. However, under the rules of the European Union the UK has to give pride of place to European students who wish to come there, and there are far more applicants from countries such as France, Spain and Germany than can be accepted. For this reason. British medical schools cannot for the present offer exchange places for Colombian students, though there is nothing to prevent private arrangements being made, in that sometimes a British student who does an elective period abroad makes friends with a colleagues and invites him or her to pay a return visit.

The Core (Nuclear) Curriculum

In general, its organisation is expressed through the curricular proposals elaborated by the professional training centres (Faculties, Schools, etc.). It is through a curriculum that the School or Faculty identifies for itself, and for society, its concept of the medical professional.

Based on the information obtained and taking into account the socio-political factors already described, it is necessary to study the creation of a core curriculum that relates to the epidemiology of the country, and also allows for promotional activities. This does not mean that doctors so trained are only authorised to practice within the current social security system or any future form of it. Rather, their performance must always reflect the precepts of a mutually decided policy, ignoring the boundaries between the public and private sectors.

A proposed new curriculum could be the result of a revision of the current training profile that can be judged academically by the results of ECAES (State Examination for the Quality of Higher Education in Medicine), and on its practical side by the doctors' performance, enabling us to determine exactly what they know and what they can do, taking into account both the scientific and the "biopsychosocial" aspects. Ideally such a nuclear curriculum would be approved by all the Deans and adopted according to the Directive Council, so that each faculty could implement it according to its strengths within a given term.

Curricular Flexibility

For many years, the Universities and the Faculties of Medicine have been conducting analyses of the different curricular structures in such a way that important modifications have been introduced including

features such as relevance and flexibility. These points have been documented in publications by ASCOFAME and in one of those, it was stated that it was necessary to establish flexible curricula that permit students to rationalise and take full advantage of their time, allowing a personalised focus and with the possibility of advancement in a particular area of interest. By introducing flexibility, an institution can reform its training, introducing new contents, and modify the curricula in such a way that they will respond to changes in the political, cultural and socio-economic situation of the country.

Additionally, during the year 2003 an initiative was generated by the Ministry of Education, laying down some basic standards of quality for the health programmes, particularly in medicine, among which, it is emphasized that "in concordance with the principle of curricular flexibility, the programme must incorporate ways to organise academic processes so as to actively involve the students and encourage their participation." The programmes should express the work of the students by means of academic credits.

On the other hand, curricular flexibility should be understood in the light of responsible self-determination as established by the Colombian Institute for Higher Education (ICFES).

We share the definition of curricular flexibility as given by Grant (1997) by which flexible training is understood as a concept that refers to an educational philosophy or a set of techniques for teaching and learning. Flexible training places the student at the centre of the educational decision process and recognises that learning is a permanency, with the aim of conferring lifelong acquisition of those skills which are an essential attribute of the professional or graduates. (See References) We consider that the development of a flexible component in our medical faculties will not only broaden the training of our physicians, but will also bring the academic programmes of the country into line with international educational norms.

RESEARCH

MEDICAL RESEARCH IN THE UNITED KINGDOM

Some of the most important medical discoveries in the world have been made in Britain, ranging from asepsis (Lister) to antibiotics (Fleming) and from the structure of DNA (Watson and Crick) to magnetic resonance imaging (Mansfield). Much of this work has formerly been carried out in small laboratories with little or no official funding, but there has been an increasing recognition of the need for the public support of medical research. Nowadays public-funded research is carried out in many places including universities, research institutes, government laboratories and certain private facilities. The British Government supports medical research in three ways, first through the various research councils, second through the research and development arm of the National Health Service (NHS R&D) and third through the many different universities, of which 30 have medical schools. However, many believe that Britain devotes an inadequate proportion of its national wealth to medicine in general and to medical research in particular; the percentage is certainly less than that of most other European countries. Fortunately this shortfall in investment is balanced by a tradition for charitable giving by members of the public, and a great deal of medical research is supported entirely by one or other of the many medical charities.

The Medical Research Council

The UK Medical Research Council (MRC) is a national organisation funded by the British taxpayer. It receives an annual grant from the Government via the Department of Trade and Industry. Working through its Council, scientific boards and committees, the MRC is independent in its choice of which research to support. However, it acts in close association with the NHS, industry and the other research councils, of which the Biotechnology and Biological Sciences Research Council is closest to the field of medicine. Its objective is to promote and maintain a balanced portfolio of medical and related biological research designed to improve basic knowledge and enhance the delivery of appropriate healthcare. Since it was established in 1913, the MRC has been responsible for a number of the most relevant discoveries and achievements in medicine. Including recent studies in molecular structure of cells and characterization of genome sequences. Some 40 MRC units are embedded in universities across the country working on specific subject areas such as prion disease, virology, nutrition and biostatistics. However all doctors and scientists working in the broad field of medicine are entitled to apply for an MRC grant. Such grants are prestigious and act as additional finance for the host institution. Unfortunately, in practice much work that is rated as alpha in quality cannot be supported because of an overall shortage of money.

The National Health Service

The Research and Development arm of the NHS (NHS R&D) supports research that is considered to be of pressing importance to the management of patients. The NHS has set a number of priority areas for research. In terms of expenditure the largest areas are cancer, coronary heart disease and mental health, but there are another 12 priority targets as follows: diabetes, respiratory disease, renal

disease, chronic neurological disease, children's services, primary care (family medicine), medicine for the elderly and emergency care together with infrastructure support for improving patient experiences, reducing inequalities in health delivery, waiting list initiatives and capacity building. The prominence of cancer as a priority is recognised by the fact that 25 per cent of the total budget is spent in this field of research. During the years 2003-2004 NHS R&D supported a total of 764 projects in priority areas plus another 155 projects that are considered to relate to the local needs of the community in subjects such as musculoskeletal disease, reproductive health, infection and immunity and vascular disease. Two interesting statistics arising from the recent report of all this activity are that the average number of publications per programme is 25 and that three quarters of these research groups have an average cost per publication of less than £20,000. The trend of NHS R&D funding is towards reducing the total number research groups that are funded, with a concentration on the larger and more successful programmes.

The Universities

Although the number of medical schools in Britain is relatively low - 30 for a total population of nearly 60 million - several of the newer universities also have faculties of biological science a which scientific research relevant to medicine is conducted. The core funding for British universities comes from the taxpayer via the Higher Education Funding Council; additional income is derived from fees for students (a controversial political topic at the present time) and support for research from industry. Indeed, many research groups are heavily dependent on funding from pharmaceutical companies and other industries. The financial relationship between the medical schools and the NHS is complex, but for the most part the salaries of the academic staff (research and teaching) come from HEFC while much of the infrastructure is supported by the hospitals.

Although individual arrangements vary considerably, most clinical academics - professors and lecturers in medicine, surgery and the other disciplines - are expected to spend at least half their time looking after patients and the rest in teaching and research. In service-orientated departments such as surgery, radiology or anaesthesia it is usually necessary for the academic staff to have a major involvement in hospital work so as to have sufficient patients for undergraduate and postgraduate teaching as well as clinical research. University departments are generally small, however, and provide only one of the teams for patient care in the hospital. Academic promotion depends heavily on research achievement, as measured in terms of grant income and publication output. Moreover, the future HEFC funding of each medical school depends on its overall academic performance as determined by a regular and detailed scrutiny termed the Research Assessment Exercise. There are concerns that the overwhelming financial emphasis placed on research excellence can detract from a department's contribution to clinical work and teaching.

Medical charities

Much of the financial support for medical research in the UK is provided by a large number of different charities. Some of these organisations such as the Cancer Research UK and the Wellcome trust provide substantial sums of money as grants in aid for research workers. Others are smaller and usually relate to a specific medical condition such as asthma, migraine or arthritis. Overall, medical charities make an invaluable contribution to medical research in Britain. The Association of Medical Research Charities acts as an umbrella organisation for these charitable organisations. It currently lists just over 100 individual members with websites. The Association aims to provide general information about member charities, particularly to help research workers hoping to obtain grant funding. It also offers projects related to the public understanding of science, while it is able to make representations to the Government from this crucial sector

of research funding. Thus the British public supports research in two very different ways, one via income tax paid to the Government and one by donations to a variety of different medical charities.

MEDICAL RESEARCH IN COLOMBIA

In the area of health research, both in basic science, clinical science, social medicine and primary care, there are at present 121 groups of high level investigation, recognised by Colciencias, which is the governmental agency charged with this task throughout the country. Apart from these groups, there are many others which are in the process of obtaining recognition by Colciencias. The medical profession in Colombia has oscillated between the extremes of populism, proposed on the one hand by those who consider that science, research and technology are not necessary in community medicine, and on the other an élitist medicine encouraged by those who maintain that research based on high quality science overrides the social commitment.

An analysis of the problems that beset Colombian medicine in basic or applied research must start from a historic study of the basis of our medical education and their evolutionary phases, such as epidemic convergence. During the eighties, many medical researchers drew attention to the great health problems that the country would face at the end of the century, resulting from an increase in chronic diseases such as cancer, cardiovascular disease, etc., typical of a developed society, and the increase in tropical diseases, as a product of low social development. The lack of a coherent official policy and the lack of a visionary analysis of Colombian society has led us to fight a war in two fronts, without having the resources required to win it, or to develop a research policy directly related to the socio-political scene in Colombia. At the present time less than 1.0% of GNP is devoted to research in general. The medical component of this sum is uncertain,

but most of the funds come directly from the Universities, where 90% of medical research is carried out.

According to Colciencias there are in Colombia 11256 researchers of whom 5429 are fully graduated. The total investment in 1995 was 340.526 million pesos. Of this, 48% was spent by the Government, 37% by private industry, 13% by the Universities, and 2% by non profit organizations. According to figures published by the OcyT (Observatorio de Ciencia y Tecnologia) investment in science and technology has steadily decreased since 1997, which can be explained by the socio-political context of Colombia as described above.

In May 2003 at the" International Symposium Aiming at a new Social Contract in Science and Technology" , held by the Universidad de Antioquia at its 200th anniversary, the "Medellin Manifesto" recommended to the Colombian government the following policies:

1. To reform legislation in such a way that it articulates the scientific and technological sector with the productive, educational and state sectors.

2. To formulate policies conducive to turning science teaching into an integral part of educational programmes, and to preserve and protect research and integrate the traditional systems of knowledge.

3. To make a firm commitment that over the next ten years the national investment in science and technology will be 1.5% of the Gross Domestic Product (GDP) thus involving an annual increase of 0.1% investment.

4. To increase incentives for the productive sector, for research and development projects directed towards improving or creating technology based companies.

5. To create a Presidential Directive for Colombian diplomatic delegations, so that they include as a priority the establishment and/or strengthening of scientific relations, the identification of financial sources, and the exchange of scientists and students, at the same time taking into account Colombian scientist working overseas , as consultants in their field.

6. To establish as a goal for the next decade (the "Decade of Science"): an increase in the number of researchers in Colombia to six hundred out of every one million inhabitants. To do this, doctorate programmes will be strengthened, as will the financing of long-term research, in addition , support will be offered to young researchers. A decisive policy will establish scientific exchange with international partners, including Colombian researchers living abroad, into the National System of Science and Technology.

7. In order to support regional science, and technological innovation, departments districts and municipalities must increase their investment in these areas, integrating the generation and use of knowledge with their strategies of regional development.

8. To integrate the Universities, the centres for technological development and the SENA (National Institute for Technical Education) into a policy for regional development. Also to encourage the Institutes of Regional Innovation-INNOVAR-and local Polytechnics -POLOS- to attract young people from rural areas as scientists committed to their development.

9. In the evaluation and accreditation of centres of higher education, research activity will be taken into account through international indicators of scientific production, which must have priority over purely economic matters.

10. To include COLCIENCIAS (Colombian Institute for Science and Technology.) as part of the COMPES (National Council for Economical and Social Politics) and to invite it to the Council of Ministers, so that it can participate in the political decisions of our country.

In the last decade, we have seen how scientific research has been continuously subject to policies that have been given a higher priority, but that have not resolved the socio-economic situation of our country, and furthermore have led to backwardness in our scientific position. Within the spirit of fair competition, it is considered that Colombia is obliged to generate its own science and technology, and to do this, it is fundamentally necessary to create an infrastructure that gives the researcher adequate technological and personal facilities, that allow him to dedicate his time to research and teaching. Additionally, a dangerous division between basic sciences and applied sciences has developed, mainly in the area of medicine. The difference in reward between the two disciplines represents one of the reasons why we have more clinical doctors than biologists or biochemists, but a continued increase in the number of clinical specialists does not necessarily imply an adequate increase in revenue.

EVALUATION/ACCREDITATION/ REGISTRATION

IN THE UK

The General Medical Council (GMC) was set up by Act of Parliament in 1858. In 2003 the 104 members of the Council were drastically reduced to 35 , including 19 doctors elected by the profession, one representative of the Royal Colleges, one representative of the Deans of Medical Schools, and 14 (40%) non-medical individuals appointed by the Government. A small medical majority was thereby maintained. The principal responsibility of the Council is the maintenance of the Medical Register. Although UK law does not restrict the practice of medicine to registered doctors, only those whose names are on the Register can undertake certain responsibilities, most notable of which is employment in the NHS. There were originally five types of registration, and these are shortly to be reduced to four, by elimination of the category of "limited registration".

Removal of names from the Register is the task of a Fitness to Practice Committee, which distinguishes between doctors who are guilty of serious misconduct, those who are seriously impaired due to ill health and those who while not actually guilty of misconduct and are not ill, are still performing inadequately. The sanctions available to the Committee vary from simple warning to erasure of the doctor's name from the Register. The other responsibility of the

Council is the maintenance of standards in medical education, and the coordination of all of its stages, a process that is supervised by the Education Committee. The Education Committee has the power to inspect courses and examinations, and to withdraw recognition for those falling below standard, although this has not up to the present been necessary.

Whereas in the past, admission to the register conferred the right to lifelong unsupervised practice, all doctors are now required to undergo a quinquennial review of their performance, leading to revalidation of their registration with the GMC. In most cases revalidation is almost automatic, but where there is an exception the doctor may be required to undergo further training The review process is complex, but has been strengthened by the introduction of annual appraisal, which is now obligatory for doctors working within the NHS, and the introduction of a system known as "Clinical Governance" in the hospitals, which is designed to bring to light adverse events.

IN COLOMBIA

The background to quality evaluation is wide and has been a central activity in the history of ASCOFAME, that institution having had a pioneering role at national and regional levels. In 1962 the first requisites for a medical school were established, which became the starting point for the evaluation of already existing faculties and for those later created, based on which ASCOFAME issued a standard that was a necessary condition for the authorisation of a school. At the same time, and with the same purpose in mind, the Association conducted visits to the programmes of medical specialities, and a satisfactory evaluation led to accreditation of hospitals where the postgraduates underwent their training and carried out their practice. This situation was maintained until 1980, when these functions were directly taken over by Government.

Between 1985 and 1992, ASCOFAME pioneered a systematic process of self-evaluation which grouped together 53 Faculties of medicine, dentistry and nursing, based on the document "General Guide for the Development of the Self-evaluation and Curricular Revision Process". This allowed the Association to obtain ample information on the characteristics of the prospective candidates and students, the structure, resources and organisation of the faculties and their curricula. This project was financed by the E. K. Kellogg Foundation.

With the new Law of Superior Education of 1992, ASCOFAME began to reformulate the requirements for the creation and functioning of Faculties and designed a proposal for such accreditation with the purpose of preserving scientific quality and affirming the trust reposed in such quality by the community at large. These two initiatives were conducted by ASCOFAME before the uncontrolled proliferation of programmes was initiated and gave origin to the formulation of a proposal of standards. These proposals provided the background for the Government to devise two instruments to promote quality in education.

1. Decree 917 of 2001 of the Ministry of Education, which establishes 16 standards of mandatory compliance by all the health programmes

2. In line with its concern to maintain the quality and through the participation of the Association in the temporary alliance made up by ASCOFAME, Colombian Health Association - ASSALUD, Association of Universities of Program Health Administration - AUPHA and the Health Sciences Institute - CES designed the "Accreditation and Self-regulation for Superior Education Programs for the Health Area". This model forms part of the Human Resources Programmes conducted within the Ministry of Health, and the Inter-American Development Bank (IDB) to support the reform of the health sector. The document delineates 13 components and 157 quality standards.

The medical programmes in Colombia apply the CNA model: "Standards for Accreditation" related to generic characteristic for all the programmes of Superior Education and is conformed by seven factors, 46 characteristics and their corresponding variables and indicators. The model proposed by the temporary alliance composed of ASCOFAME - ASSALUD -AUPHA - CES: (Accreditation and Self Regulation for Superior Education Programs of the Health Area), is conformed by the same seven factors, but with 51 characteristics and their corresponding variables and indicators.

Currently, the lines of work of the Association related to the quality of medical education are as follows.

a. Permanent co-operation with the National Accreditation Council to advance the accreditation of medical faculties Up to now twelve have obtained certification from the Ministry of National Education.

b. Supporting the Government on the definition of basic standards of quality, which are of mandatory compliance for the non-accredited medicine programmes.

c Training, in conjunction with the National Accreditation Council, of 149 academic pairs that can cooperate with the evaluation of the basic quality standards as well as the indicators of proven excellence in medical education.

d. Agreement with the Colombian Institute for the Promotion of Superior Education - ICFES for the design, undertaking and analysis of state exams for students of the last year of Medicine, called State Examinations for the Quality of Superior Education in Medicine ECES ICFES –ASCOFAME (Decree 1716 of 2001 of the Ministry of Education, at present decree 1781 of 2003)

e. Agreement with ICFES for the definition of quality standards for the creation and functioning of each of the medical specialties existing in the country.

f. Accompanying and consulting for the medical faculties of the country in the processes of self-evaluation and verification of standards.

These activities allow the Association to maintain work which gives relevance to the concept of evaluation. Evaluation is understood as giving an opportunity to qualify programmes, by means of the processes of self-evaluation and self regulation thus improving the performance of the graduate, Evaluation is important and useful as long as it provides information regarding a range of alternatives aimed at improvement. This implies the need for an evaluative process that bears directly on the educational process.

Self-evaluation and self-regulation processes are not limited by repeated short term assessments, carried out because of institutional demands or legal mandates. Thus:

1. The processes of self-evaluation, self-regulation and accreditation must be advanced in accordance with the policies defined by the National Accreditation Council. In this sense, it is important to identify aspects that will help the development of a culture of quality and will allow the devising of clear, pertinent and trustworthy improvement policies. Development must be transparent, so that improvements are made clear to society at large.

2. The methods of evaluation used in Colombia should take into account the experiences in other countries and international organisations, so that valid comparisons can be made.

3. Because the teaching/service scenario is of importance in the training of a physician, criteria should be established that aim to accredit the quality of the selected institutions in relation to the numbers of staff available for teaching activities. This requires the definition of a series of indicators in relation to the staff who teach, the relation between the hospital and medical school and the academic and research processes carried out.

POSTGRADUATE TRAINING

POSTGRADUATE TRAINING IN THE UK

Following successful passing of the final examination, all graduates are obliged to undergo a year as Pre-Registration House Officer (PRHO), which corresponds very closely to the Colombian Intern Year, though perhaps with more clinical responsibility. Thereafter, the young doctor becomes a fully registered practitioner, and is entitled to work independently, though in practice in order to obtain employment in the National Health Service (which is to all intents and purposes a monopoly employer) he/she will have to undergo further training and certification. The successive training grades include Senior House Officer (one to two years), and Specialist Registrar (four to seven years depending on the specialty). The **intending hospital specialist** will end up as Consultant, and there is a parallel training ladder within the University system, the ultimate career post being a Professor . These grades are about to be simplified into two foundation years and four to seven specialist years which would involve a 'seamless' progression. Training of Consultants is supervised by the 30 medical Royal Colleges, who set examinations and award diplomas such as MRCP (Member of the Royal College of Physicians) and MRCS (Member of the Royal College of Surgeons). On completion of training the specialist is awarded a Certificate of Completion (CCST) which entitles him/her to be entered on the Specialist Register and to practice as such throughout the European Union. The content of training

courses is laid down by the Royal Colleges and may be undertaken in University or District General Hospitals. In 2003 the Government set up a Postgraduate Medical Training Board (PMTB) with a lay Chairman, to oversee training in all disciplines. The relationship between the new board and the Royal Colleges is still under consideration.

Postgraduate training in Primary Care is somewhat different from that in hospital based specialties. Vocational training for general practice has a long tradition in the United Kingdom, with the establishment of the first vocational training scheme at Inverness, in Scotland, in 1951. Training programmes developed throughout the United Kingdom during the early 1970s, co-ordinated by the then Regional Advisers in General Practice, now Directors of Postgraduate General Practice Education. Since then the National Health Service (NHS) has enjoyed one of the most successful programmes of training for family doctors in the world and many thousands of doctors have chosen to train for a career in general practice in the United Kingdom.

Vocational training is now highly developed and equips doctors with the wide range of skills, knowledge and attributes they need to practice independently in a primary care led NHS. It also provides a sound foundation for their further professional development. On conclusion of the training period, doctors may apply to the Joint Committee on Postgraduate Training for General Practice, for a certificate of prescribed or of equivalent experience. This is often referred to as the 'certificate of vocational training' and is the licence to practice unsupervised as a general practitioner in the NHS.

The Joint Committee was set up in 1976 from a working partnership that had grown up between the two main bodies representing family doctors in the United Kingdom - the Royal College of General Practitioners (RCGP) and the General Practitioners Committee (GPC) of the British Medical Association. Today the Committee's

membership also includes representatives from the UK Conference of Postgraduate Advisers in General Practice, the Association of University Departments of General Practice, the Association of Course Organizers, the Joint Consultants Committee, the National Association of Clinical Tutors, the UK Conference of Postgraduate Medical Deans and the Armed Services General Practice Approval Board. The vast majority of members are working general practitioners. The Committee also has two lay members nominated by the GMC. General Practice (GP) Registrars are represented on the Committee by three junior doctors elected by their peers.

The Committee's main responsibilities are:

- To set the standards of general practice training throughout the United Kingdom including the Armed Services. This includes the supervision of training and the monitoring of the performance of Deaneries in providing training programmes.
- To approve posts for use in general practice training.
- To approve GP trainers
- To issue certificates of prescribed and equivalent experience to doctors who have completed the training programme successfully.
- To act as the Competent Authority in the United Kingdom for all the purposes of Title IV of Council Directive 93/16/EEC (which deals with arrangements for the training and employment of general practitioners in the European Economic Area), except for the recognition of certificates issued by other Member States.

The length and content of GP vocational training in the UK is determined by Parliamentary Regulations. Training is organized on a regional basis. Responsibility for training within each region rests with the director of postgraduate general practice education. Doctors can choose a formal vocational training scheme (VTS), can construct their own programme, or choose a mixture of both.

At the start of GP training doctors usually complete an initial assessment to confirm their current level of knowledge. **Formative assessment** is then used to measure progress at regular intervals throughout the training programme both through direct observation at work and during educational sessions with the help of assessment tools. Formative assessment is for the benefit of the learner. It provides a record of the GP Registrar's progress at a given time which is shared and discussed between GP Registrar and trainer and then used in drawing up a learning plan.

Experience in hospital posts is an important part of postgraduate training for general practice and is intended to reflect the training needs of the future general practitioner. Such training should reinforce the clinical experience gained during the pre-registration period, and enable doctors in training to gather experience and gain confidence under supervision. As members of a hospital team they should gain an understanding of the roles and relationships of the professions involved in hospital care. This period of training should add to the knowledge of life-threatening diseases and their complications and consequences, and provide practical experience in a broad range of management decisions.

Traditionally only one third of the three year GP training programme is spent in the setting of general practice. The trainee is known as a GP registrar. The Joint Committee strongly recommends that the final phase of training should be in a GP Registrar post of at least six months duration. This is so that hospital-based training can be seen in a general practice context and the chances of passing Summative Assessment maximized.

During the training period, the GP registrar is expected to expand on and develop previously acquired knowledge and skills and to adapt these to the practice of medicine within general practice. In addition, the GP registrar acquires new knowledge and skills in the areas of

clinical and practice management. Jointly the trainer and GP registrar should work together to identify the individual learner's needs and the best ways of meeting these.

The range of work undertaken should be carefully planned and balanced opportunities for GP registrars to see and care for patients with acute and chronic conditions, to manage emergencies in general practice and to care for the dying. They should also have regular experience of determining and reviewing criteria and standards of care and of performance monitoring within the practice, so acquiring the knowledge and skills needed to carry out and implement the results of practice audits. Overall, the content of training reflects fully the current responsibilities of general practitioners, including training in child health surveillance, family planning and minor surgery within the setting of general practice.

The assessment of the GP registrar's progress is a regular and continuing part of the attachment to general practice. Whatever the methods chosen, trainers are expected to justify and demonstrate the results of the assessments they carry out against the initial objectives for training.

Summative Assessment is completed towards the end of the training programme. It is a test of competence resulting in a pass or fail. However, the standard is set at a constant level, so there is no built-in failure rate and the vast majority of GP Registrars have no difficulty passing. It provides an objective test of GP Registrars' skills to ensure that those completing training are competent to practice independently as GPs in the NHS.

Summative Assessment has a number of important benefits. Firstly it ensures that patients are provided with the protection of knowing that all doctors who complete GP vocational training have had their competence assessed to a national standard. Secondly, it protects GP

Registrars by providing a route to extra training if required. Lastly, it removes, from trainers, the burden of being the sole assessor.

Regulations require those who begin the whole of the GP Registrar year after 30 January 1998 to pass Summative Assessment.

The competencies tested by Summative Assessment include

- Factual medical knowledge which is sufficient to enable the practitioner to perform the duties of a general practitioner.
- The ability to apply factual medical knowledge to the management of problems presented by patients in general practice.
- Effective communication, both oral and in writing.
- The ability to consult satisfactorily with general practice patients.
- The ability to review and critically analyze the practitioner's own working practices and manage any necessary changes appropriately.
- Clinical skills.

Doctors who fail Summative Assessment but do not wish to complete further training may appeal through the local appeals mechanism which operates in all deaneries and/or apply to the Joint Committee for a certificate. If, after detailed inquiries and careful consideration, the Joint Committee refuses to issue a certificate the applicant has a right of appeal to the Secretary of State for Health.

Continuing education (CME/CPD)

Medical training does not come to an end once the student passes his final examination and qualifies as a doctor. All doctors should continue to learn, to accumulate experience and continue to improve their practice. However it is recognized that, often through no fault of their own, not all doctors maintain their standards and keep up to date. Structured programs of Continued Medical Education (CME) or

Continued Professional Development (CPD) have been progressively introduced into medical practice over the last decade. CME is the medical education provided for doctors as a whole, once they have completed their specialist training. CPD requirements are different for each individual and depend on many factors including their specialty and particular professional commitments. As a result of consumer pressure, and pioneered by such organizations as the Canadian MOCOMP programme. the concept of CME/CPD has been accepted throughout the developed world. .In the UK, hospital specialists are obliged to show that they have attended appropriate sessions of CPD such as conferences, postgraduate courses and lectures, for which they are awarded credit points, depending on the type of activity. A certificate of attendance is provided at the end of the meeting. The process is monitored by the Royal Colleges. Internal CPD implies attendance within the doctor's own institution, whereas external CPD refers to meetings, conferences etc in other areas. Most RC's require at least 50% of CPD to be undertaken externally. A minimum of 250 credit points is required, over a five-year period. CPD attendance forms an important component of the annual appraisal leading to revalidation/ revaluation, and a doctor who cannot produce a satisfactory personal CPD folder is at risk of losing his licence to practice.

POSTGRADUATE TRAINING IN COLOMBIA

In the years 2002-2003 ASCOFAME and ICFES carried out a joint study of postgraduate education, from which they developed a project entitled "Standards of Quality for the Creation and Function of Higher Training Programmes in Medical Specialties", with the following objectives:

a. Improvement of the quality of Colombian higher education by proposing criteria, conditions and standards by which every specialist training programme should operate

b. Offering the required orientation for the design and self-assessment of academic programmes in medical specialties,
c. Strengthening the identity of medical specialties, establishing curricular conditions and support for teachers so as to guarantee high quality training
d. Facilitating the mobility and interchange of students throughout the country
e. Allowing the harmonization and mutual recognition of diplomas, and encouraging mobility of teaching staff
f. Providing the state with an instrument for inspection and surveillance

These deliberations resulted in the following:

1. A diagnosis of the situation in Colombia concerning medical and surgical specialties in terms of their number, denomination, faculty of origin, duration, title of the diploma granted, and overall relevance
2. Definition of standards for the creation and functioning of specialist training programmes.
3. Agreeing denominations for the specialties, thus avoiding duplication of titles in areas of overlap
4. Defining minimal programmes for 99% of the specialties available in the country.

Based on the documents produced by this project, derived from workshops including postgraduate trainers, directors of specialties and representatives of specialist societies, the foundations were laid down for the definition of a process of accreditation of the specialties, finally formalized by Decree 1665 of 2002. This Decree establishes the quality conditions which must be fulfilled by any specialist training programme. It comprises 16 items, namely:

Justification of the programme

Academic title

Basic curriculum

Academic activities

Support for research

Social relevance

System of selection and admission of trainees

Assessment of trainees

Teaching staff resources

Infrastructure, including teaching aids

Scenarios of practice

Academic and administrative structure

Self assessment

Position of graduates from the system

University wellbeing

Publicity

Of the 118 specialties identified, we have achieved agreement to amalgamate various denominations, thus reducing the number to 87. This has greatly clarified the panel of specialties. Furthermore, basic policies have been laid down for 82 specialties, comprising 94% of those practiced in the country. In terms of the 388 programmes, regulation now applies to over 99%.

Postgraduate education in Primary Care is at a fairly early stage in Colombia, but, beginning at the University del Valle in Cali, several more academic centres for this discipline are being set up or are in the planning process.

CONCLUSIONS AND RECOMMENDATIONS

1. The UK spends some 6.8% of GDP on health, Colombia nearer to 10%, yet the UK provides a better overall service. There could be lessons to be learned from this.

2. The UK has 30 medical schools of fairly uniform standard for 60 m. population, Colombia has 51 of widely differing standard, for 43 m. population. The number of Colombian schools should either be reduced or at least prevented from increasing.

3. Some of the schools are adopting what we would consider to be a more progressive curriculum, involving an integrated approach where basic and clinical sciences are taught together. We would recommend this development.

4. The UK NHS is based on primary care, and this is reflected in the undergraduate curricula. British health economists agree that this is cost effective, and that systems involving free access to specialists result in waste of resources (cf. France, where the Government has introduced legislation to restrict access to specialist services). ASCOFAME and virtually all of the schools visited take the same view, and we recommend that a major effort should be undertaken to improve primary care in Colombia and shift resources in that direction. The UK can provide experts in that field to advise Faculties and Government.

5. This will involve a major change in culture. At present, patients (at least those who can afford access to healthcare) traditionally take the view that only a hospital based specialist can answer their needs. Students do not regard a career in primary care as an attractive option (there are many understandable reasons for this) and virtually all intend to practice a branch of hospital medicine. Rather than attempt to induce students to become "generalists" we suggest that all Colombian doctors should be classified as specialists, including specialists in primary care.

6. Such a change in public and professional attitudes cannot be achieved overnight, and a strategy must be developed to encourage it. We identify three separate though interconnected components of this strategy. These are provision of sufficient number of trainees, provision of trainers, and provision of facilities for them to work in.

7. **Trainees** could be recruited not only from future cohorts of students, but also from the large number (approx., 37000) of relatively undertrained general doctors.

8. Originating in the University del Valle, and now extending to other schools, academic departments of primary care are being set up, to train specialists in this area. **Trainers** are already being created in the schools that have established these departments, and their numbers must be allowed to expand.

9. Provision of improved primary care **facilities** in a number of chosen areas will serve as a model for other communities. These need not necessarily be along the lines of British GP surgeries – the polyclinic model, which at present operates very successfully in some of the communities visited, may well be better suited to Colombian needs.

10. One major disincentive to postgraduate students in Colombia is the debt that they accumulate during their course, which drives them towards the more lucrative specialties. In the UK graduate trainees are regarded as workers, and recompensed for their service to the hospital. We recommend that Colombian residents should be adequately paid

11. To begin the change, a strong regulatory body, equivalent to the British General Medical Council (GMC), is required, which at present does not exist in Colombia. This organisation should be responsible for maintaining the standards of the Faculites of Medicine, through regular inspections; and it would appear that this present mechanism is not effective. Additionally, the GMC's responsibility also extends in particular to doctors, registering them or removing them from the register, whichever be the case.

12. We recommend that, by consultation with ASCOFAME (and presumably under their auspices) and the various other national medical organizations, together with the Ministry of Education and the Ministry of Social Provision, consideration should be given to constructing such a body, with a view to strengthening the inspection process, harmonising curricula within schools (with an accent on primary care) and raising the status of the state examination. Again, the UK can help in this regard, particularly in the examination field, where their long experience with such techniques as OSCE. would be of use.

13. While an overall professional majority must be maintained, it is important that the regulatory body for the medical profession should have a strong lay component, in order to demonstrate to the public that it operates in the interest of patients.

14. Were such a body to be set up, it would naturally and logically lead to similar regulatory mechanisms for professions such as nursing, physiotherapy and radiography.

15. In the field of postgraduate education, it is essential to construct a formal specialist register. The ASCOFAME document (Informe Consolidado 2002-2003) provides a thorough study of the criteria required by the various specialist societies, but does not explain how these can be enforced. Nonetheless, the work undertaken by ASCOFAME in 2002-2003, in respect of medical specialities, is of great importance for the country because it gives origin to standards of quality for the creation and function of specialities under Decree 1665 of 2003, and establishes bases for minimally acceptable programmes for each speciality. The programmes need to be updated every five years, led by ASCOFAME, with support from the Government, so as to establish a uniform nomenclature which will be approved by the Ministry of National Education.

16. The United Kingdom has developed sophisticated and cost-effective models of management, bit tin hospital setting and in primary care. Together with in-depth studies of health economics. The Ministry of Social Provision should consider making resources available for the exchange of managers, administrators and economists, in order to share experiences and offer expertise.

17. We recognize that the civil and military situation in Colombia renders the construction of stable training programmes and healthcare facilities not only difficult, but in some regions of the country impossible.. But, expanding from the relatively well resourced areas which we have visited, creation of such systems of healthcare would exert a strongly influential effect on social stability, and help provide an effective answer to the forces of crime and disruption.

18. Finally, a more detailed but nonetheless important point. Through accidents of history, it is now an inescapable fact that the language of medicine is English. Many Colombian schools include the study of English as a core subject, and this should be extended. Through the British Council and other agencies, the UK is in a strong position to help in this process, especially in the area of education in primary care.

APPENDICES

ABBREVIATIONS

AIDS	Autoimmune Antibody Deficiency Syndrome
ARS	Administradora Regional Subsidiada (similar to EPS for the poor)
ASCOFAME	Asociacion Colombiana de Facultades de Medicina
ASSALUD	Colombian Health Association
AUPHA	Association of University Program Health Administration
CCST	Certificate of Higher Specialist Training
CES	Centro de Estudios en Salud
CHI	Committee for Health Improvement
CNA	Consejo Nacional de Acreditación
CME	Continued Medical Education
COMPES	Consejo Nacional para Políticos Economicos y Sociales
CPD	Continued Professional Development

DGH	District General Hospital
DoH	Department of Health
EEC	European Economic Community
EPS	Empresa Promotora de Salud
ESS	Empresa Social del Estado
FOSYGA	Fondo de Solidaridad y Guarantía
GMC	General Medical Council
GDP	Gross Domestic Product
GNP	Gross National Product
GP	General Practitioner
HEFC	Higher Education Funding Council
ICFES	Instituto Colombiano para el fomento de la Educación Superior
ICL	Imperial College London
IPS	Institución Prestadora de Servicios (centro de salud en hospital)
ISS	Instituto de Seguro Social
KCL	Kings College London
MOCOMP	Measurement of Competence in Medical Practice
MRC	Medical Research Council
MRCP	Member of the Royal College of Physicians
MRCS	Member of the Royal College of Surgeons

NHS	National Health Service
NICE	National Institute for Clinical Excellence
OcyT	Observatorio de Ciencia y Tecnología
OSCE	Organized Simulated Clinical Examination
PCT	Primary Care Trust
PMETB	Postgraduate Medical Education Training Board
POS	Plan Obligatorio de Salud
PRHO	Pre-registration House Officer
RCGP	Royal College of General Practitioners
RSM	Royal Society of Medicine
SHO	Senior House Officer
SGSSS	Sistema General de Seguridad Social en Salud
UK	United Kingdom of Great Britain and Northern Ireland
VTS	Vocational Training Scheme

PREVIOUS REPORTS

1. **DEANS' VISIT TO UK, FEBRUARY 2003**
2. **UK DELEGATES' VISIT TO BOGOTA/NORTE. MARCH 2003**
3. **UK DELEGATES' VISIT TO BOGOTA/ CENTRO NOVEMBER 2003.**
4. **UK DELEGATES' VISIT TO BOGOTA/SUR APRIL 2004**

UK MISSION REPORT OF THE COLOMBIAN ASSOCIATION OF FACULTIES OF MEDICINE – ASCOFAME
10-14 February 2003

Gustavo Pradilla Ardilla, Dean of the Faculty of Health,
Universidad Industrial Santander (UIS)

1. Introduction

The Mission to the United Kingdom by a delegation of ASCOFAME, which took place from 10 to 14 February 2003, is yet another step in a process which has been arduously conceived, planned and executed by Dr. Julio Enrique Ospina Lugo over 4 years. This process reached a highly significant watershed at the Colombian-British Conference held in Bogotá in October 2001 with the participation of 20 distinguished

UK academics in Medicine and Nursing, as well as Deans and Professors of the Faculties and Schools of Medicine affiliated to ASCOFAME.

Organised by Trade & Business Services – Canning House and financed by Trade Partners UK, it was able to count on the generous participation of The Royal Society of Medicine, The General Medical Council, Committee for Health Improvement, National Institute for Clinical Excellence, Department of Health, University College of London, King's College of London, University of Sheffield and Imperial College of London.

The main target is under-graduate medical education in Colombia and an 18 month programme has been established to assist Universities and Medical Schools in introducing curricular changes that will improve the quality, ethical standards and social commitment of the students, with the aim of better preparing future Colombian professionals.

The action plan that was developed allowed Dr. Julio Ospina Lugo, Executive Director and four Deans of Medicine of ASCOFAME, Dr. Carlos Malabet, (Universidad del Norte) President, Gustavo Pradilla (UIS) Vice-President, Julián Osorio (CES) and Luis Camacho (UNAB) to become familiar at first hand with the curricular aspects of under- and post-graduate training. The group was accompanied by Mr. Gary Soper, First Commercial Secretary, British Embassy in Colombia.

This visit will be followed by a series of three, two week visits to Colombia by several British academics to the Universities affiliated to ASCOFAME to discuss specific curricular programmes. The first visit will be in March 2003, followed by another in October of the same year, and the last in March 2004.

The results of this programme will be announced at the ASCOFAME Board of Directors meeting in October 2004 in Bogotá.

The objectives of the Mission to the UK, in addition to the curricular aspects, contemplate the evaluation and accreditation processes of the courses, research programmes, general interdisciplinary links and the relation between universities and hospitals.

Where the UK meets Latin America & Iberia.
www.canninghouse.com

Canning House is the Luso Brazilian Council and the only institution in the UK that promotes links in order to strengthen relationships and understanding between Great Britain and Latin America, Spain and Portugal. It is a membership organisation, mainly financed by the British corporate sector, and also receives financial support from the Foreign and Commonwealth Office, Trade Partners UK, IDB, European Commissions, schools and universities, associations and individuals.

It was founded as two separate Councils in 1943 (one Hispanic and the other Luso Brazilian) but became one unified organisation in 1973. Its programmes are aimed to the advanced knowledge within the UK of the history, culture, literature, economy and social conditions of the countries of Latin America and Iberia. It also promotes scientific, academic and commercial exchange.

The Baroness Hooper is its Honorary President and will be replaced by The Lord Garel-Jones.

Viscount Montgomery of Alamein, son of the legendary English soldier, is one of Canning House's Vice-Presidents.

It is situated in a Grade II listed building in one of the most exclusive areas of London and regularly hosts numerous events with several

Latin American Presidents, amongst them Dr. Alvaro Uribe, as well as artistic and cultural exhibitions and lectures. The Government of Colombia awarded Canning House the Grand Cross of the Order of Boyacá and one of its salons bears the name of Colombia.

Its dynamic Executive Director is Mr. Michael Valdés Scott, a great friend of Colombia, whose refined and cultured personality favours the objectives of Canning House.

It was named after Prime Minister George Canning who, in his Message to the King on 12 December 1826 stated: "I call the New World into existence to redress the balance of the Old".

2. Development of the Mission to the United Kingdom.

The Mission consists of two main parts. The first makes reference to the Seminar developed as an initial and general presentation of the Health System in the UK and was held in the Royal Society of Medicine which we describe below, and the second refers to the visits made to various centres such as the University College of London, King's College of London, University of Sheffield, Imperial College of London and the Royal College of Surgeons of England. Also, the British company Limbs & Things, that manufactures models for medical, clinical and surgical training, complemented this second part with a presentation of its products.

2.1. Seminar at The Royal Society of Medicine. 1 Wimpole Street. www.rsm.ac.uk

The Royal Society of Medicine was founded in 1805 in the exclusive area of London's West End, with the vision of forming a society that

would embrace the different specialist areas of the medical profession, for the reception of communications and the formation of a library. After two centuries its membership comprises not only British professionals but also doctors from all over the world and its aims have extended to the promotion of exchange of information and ideas on the science, the practice and organisation of medicine, allowing students and other professional groups and allied health-care professionals to participate. It has 17,000 members who enjoy the 300 annual meetings held in the comfortable facilities with a classic touch that includes a hotel with special rates for its members. 4,000 of its associates are foreign and 35 Colombian, including Dr. Julio Ospina Lugo.

The Royal Society of Medicine Library is the largest post-graduate biomedical library in Europe, with a total collection of half a million volumes dating back two hundred years. It offers 2,000 updated magazines and 10,000 discontinued titles that include material from the 18th and 19th centuries. It also holds half a million books, receiving 900 new volumes every year. 200 magazines can be consulted electronically.

It publishes its own magazine, the Journal of the Royal Society of Medicine as well as books in various fields of interest. It receives applications of Fellowships and for non UK-Residents it offers the Overseas membership.

The purpose of this initial seminar was to inform us about the UK Health System and general aspects of medical education.

2.1.1. UK Health Systems.
NATIONAL HEALTH SYSTEM NHS

Healthcare in the UK is financed by the Government (Department of Health) by means of a state system, the NHS, whose main objective

is to offer the British public an efficient and modern health service, developed around the patient.

Since 1940 it has implemented plans to improve healthcare, which has been in crisis throughout this period due to lack of funds. In particular there are very few doctors and nurses and other staff members to carry out all the required treatments. However there are other underlying problems, and a 60 year old system operating in the 21st century has amongst others the following shortcomings:

- The absence of national standards.
- Obsolete limitations amongst the diverse assistance groups and barriers between services.
- A lack of clear initiatives and support to improve output
- Over-centralization and disenfranchising of patients

The NHS is therefore facing the following challenges:

- A progressively aging population with longer life expectancy.
- Growing public expectations from the consumer's perspective.
- The current labour force capacity.
- The implementation of medical advances to routine clinical practice as soon as possible.

The public want to see more and better paid professional, employing new work methods, reduced waiting times (which can sometimes be more than 6 months) and high quality health centres centred around the patients. The public is calling for improved local and surgeries.

For these reasons, since March 2000 the NHS developed an investment and reform plan to achieve what British society demands.

They plan to have an additional 7,000 beds in hospitals and intermediate care, 100 new hospitals for 2010 and 500 new centres of primary

care, replace/update 3,000 general practitioners and 250 new tomographers, clean wards and better food in hospitals, modern systems of referral and surgeries for GPs. For the health teams the investment aims to provide 15,000 more doctors, 30,000 more allied scientists and professionals, 35,000 more nurses and midwives, a new system of salaries and incentives to recruit and retain the teams, greater flexibility in their duties and to establish and maintain the concept of University & NHS and lifetime education.

These investments go hand in hand with the reform of an autonomous local health service while modernization is achieved. There will be a range of national standards with regular inspections of the local health authorities by an independent body, the Committee for Health (Care) improvement.

Defined pathologies have been prioritised, such as cancer, cardiovascular and mental illnesses, and the elderly and child population will have special programmes, in a framework of an improved primary healthcare.

For the construction and equipping of new hospitals they have established a special and beneficial relationship for both parties with private financing institutions, with 20 year contracts which include maintenance and updating technical equipment, which is known as the **Private Finance Initiative** in the **National Health Service**. This model is being tried in Chile and Mexico.

The NHS has relied on non-state organisations for the assessment and quality control of its programmes and institutions.

One of these is the **Health Quality Service(HQS)** with 12 years of experience, initially known as the Kings Fund Organisational Audit, a not for profit organisation.

It began by establishing quality standards in British hospitals. Presently it accredits hospitals and health centres of diverse specialities and of primary healthcare. It has international experience in countries such as Denmark, Spain, Italy, Ireland and the Arab Emirates.

Another organisation is the **National Institute for Clinical Excellence (NICE)** created in England and Wales in 1999 by the NHS to provide guidelines for the use of newly selected and established technologies. Also, to synthesise the evidence regarding treatment costs and give their verdict on recommendations and interventions considering the cost effectiveness of the full use of NHS resources. It is an independent organisation and also guides health professionals and patients, helping them to make decisions regarding treatment and healthcare. The guidelines and recommendations of NICE are prepared by independent groups consisting of heath professionals with work with the NHS and individuals who are familiar with aspects that affect the patients and their lives. The three areas of healthcare they deal with are:

- The use of existing and new medication and treatments within the NHS in England and Wales: technological evaluations
- The appropriate treatment and care of patients with specific illnesses and conditions within the NHS in England and Wales: Clinical guidelines.
- Determines if the used procedures for diagnosis or treatment are sufficiently safe and work satisfactorily for routine use: Intervention Procedures.

The UK's Department of Heath also has an international division (DH International), established as the central liaison point between the international community, the NHS, the British Health Care Industry and other entities like Trade Partners UK. It facilitates and organises visits by foreign missions, health authorities and clinical personnel, providing them with access to NHS hospitals and primary health care

facilities. This international organisation has experience and can rely on suitably qualified staff both within the UK and overseas who provide an infrastructure that allows it to cover a wide variety of health care areas. It has received visiting missions from Chile, Estonia, Argentina, Brazil, Finland, Namibia, Taiwan and France. It has also developed new hospitals in Syria and health programmes in Malta and has a Memorandum of Understanding with Mexico.

2.1.2. The General Medical Council (GMC - www.gmc-uk.org) and its role in Medical Education in the United Kingdom

The GMC is a non-governmental, not-for-profit, body whose motto is: "Protecting patients, guiding doctors". Its fundamental purposes are the protection, promotion and maintenance of the health and safety of the community.

Its principal functions are to maintain up-to-date registers of qualified doctors; to encourage good medical practice; to promote high standards in medical education; and to intervene firmly and impartially with doctors whose suitability to practice has been called into question.

It is clearly established that the GMC does not defend doctors, whose interests are protected by others, but that its role is to protect patients. The full Council meets three times a year, in February, May and November. The majority of its work is done in committees that meet throughout the year. It is formed of 104 members, of whom 54 doctors are selected by the Colleges with which they are registered, 25 members of the public are nominated by the Private Council and a further 25 doctors are nominated by the educational bodies such as universities, the Royal Colleges and the faculties. Those nominated by the Private Council are not qualified doctors; their role is to speak for the public, allowing the GMC to act as a focal point of debate

between doctors and patients. The perform a vital role in every area of the Council's work.

In order to ensure high standards amongst doctors practicing in the UK, the GMC has established guidelines and norms for under-graduate and post-graduate medical education, undertaking visits and inspections of medical schools and teaching hospitals. These norms, and the results of its work are published and action can be taken when the established standards are not maintained.

The GMC has no jurisdiction over medical students until they qualify and register with the Council, but it can offer guidance to medical schools on the management of any problems that might affect the suitability for future practice of their alumni.

The GMC has produced a guide (Doctor's Teaching) for teachers.

It works with the Royal Colleges of medicine and with other training institutions to promote the continuance of high standards of medical education and post-graduate training.

In 1997 it published recommendations for training qualifications for doctors in a document entitled "The New Doctor". This was complemented in 1998 by another, "Good Medical Practice", dedicated to the principles of professional practice. In October 1998 it began a series of visits to universities with schools of medicine and post-graduate programmes, to supervise the implementation of the content of "The New Doctor" and the recommendations on under-graduate medical education contained in the document entitled "Tomorrow's Doctors".

These visits were informal and designed to facilitate and sustain the curricular changes rather than to be DICTAMEN.

The programme of 23 visits ended in April 2001. The report was published in July of that year: "Implementing The New Doctor": The Education Committee's informal visits to UK Universities October 1998 to April 2001". Despite finding positive aspects in their visits, they also found persistent general problems in various areas and continue with their work of follow-up work, advice and educational assessment.

Visits to medical schools are made every five years.

In addition to certifying registered qualifications for British doctors, the GMC also issues a revalidation for these professionals.

The **Quality Assurance Agency for Higher Education (QAA www.qaa.ac.uk)** is another body that evaluates the quality of education in the United Kingdom. It was established in 1997 to provide a reliable integrated service for quality, across higher education in this country. It is an independent entity, funded by subscriptions from the universities and colleges of higher education, and from contracts with the principal higher education bodies.

Its mission is to promote public confidence in the quality and standard of examinations in higher education, to safeguard and to improve them. The QAA audits 180 universities and higher education colleges form the oldest, founded 800 years ago, to the newest, created in 2000. It analyses the way in which each institution manages its general quality and the standards for its PROVISION. It also checks the academic standards and the quality of teaching and learning in each defined area. Its inspections are published as reports that are made available to the public. It is also an advisor to the Government on applications for university degrees and admission grades. Finally, it licenses the agencies that validate the courses for access to higher education.

2.1.3. University College London (UCL www.ucl.ac.uk)

UCL was founded in 1826 as a challenge to discrimination given that, since the beginning of the 19th century, the benefits of a university education in England were reserved exclusively for members of the church. It was the first popular university that ignored class, race, religion or sex and dramatically broadened access to higher education. This liberal tradition continues to inspire it. Among its notable alumni are Alexander Graham Bell, G. K. Chesterton and Mahatma Gandhi (who studied Law in 1889), and 18 of its graduates have been awarded Nobel Prizes.

UCL is the largest of the 50 colleges and institutes that form the federal University of London. These institutions vary in size from small, specialized ones to large colleges with many faculties like UCL, King's College and Queen Mary's, each one them comparable to many of the universities in the rest of the United Kingdom.

The new Royal Free and University College Medical School (RF&UCMS) was created by the unification of two separate medical schools in August 1988; it also included a number of world renowned institutions such as the Institute of Child Health, the Institute of Neurology (The Hospital for Neurology and Neurosurgery, the Institute of Laryngology and Otology and the Institute of Ophthalmology (Moorfields Eye Hospital)). For them the RF&UCMS is now certainly one of he most important and prestigious Schools of Medicine in Europe. As a result of its successes, the School of Medicine has received numerous private investments and one of its greatest developments is the Wolfson Institute for Biomedical Research, directed by the noted Latin American researcher Professor Salvador Moncada.

The Dean, Dr. Michael Spyer believes that the principal strength of the School is the integration of teaching and research, as well as

having an international profile. Some 75% of the School's activity is focussed on biomedical research. Each year it receives 350 new students. It has three teaching hospitals with 1,000 beds and can call on 600 more.

From September 2000, with the creation of the new School of Medicine, a new 6-year curriculum was implemented. The students spend 5 years studying medicine and one additional year to obtain an Intercalated BSc. The programme for obtaining a medical degree uses a system based on integrating basic sciences and clinical medical sciences with professional practices and skills throughout the course. It incorporates all the recommendations in the "Tomorrow's Doctors" report of the General Medical Council, whilst also preserving the strength of the pre-existing curriculum. From the beginning the students have clinical contact with patients, doctors and other health professionals in the three principle clinical sites and in the community. The new curriculum in UCL allows the student to achieve a University of London degree as a Bachelor of Science (BSc) and as a Bachelor of Medicine and Bachelor of Surgery (MB BS). Students spend 32% of their time in private study. Teaching in small groups, thus diminishing the use of master classes. Study includes the use of new information technologies and Clinical Skill Centres with standardised patients, actors and simulation models.

The 5-year core medical degree programme is divided into three phases:

Phase 1 (Years 1 & 2): Science and Medicine
Phase 2 (Years 3 & 4): Science and Medical Practice
Phase 3 (Year 5): Preparation for Practice

There is also an additional year for all medical students (except graduate entrants).

Intercalated BSc. There is a choice of at least 19 different BSc programmes. The students can intercalate a BSc after years 2, 3 or 4, but the majority do so between years 2 and 3.

There are three "vertical modules" of personal and professional development that run through the 5 years of the medical programme and are integrated in the core curriculum:

- Professional Development(including clinical and communications skills, ethics and law)
- Assesment of Evidence.
- Community oriented Medicine.

Similarly there three "vertical modules" integrated in the core curriculum throughout the 5 years:

- Society and the individual
- Mechanisms of drug actions and the use of medicines
- Pathology.

In addition to the core curriculum there is a selection of Special Studies Modules in a wide range of subjects (including art and humanities) that forms an obligatory part of the programme.

PHASE 1: SCIENCE AND MEDICINE (Year 1 and 2)

Phase 1 provides a common unified basic science learning experience with the core material arranged as a series of sequential, integrated systems-based modules.

Year 1

- Foundations of Health and Disease
- Infection and Defence
- Circulation and Breathing
- Fluids, Nutrition and Metabolism

Year 2

- Movement and Musculoskeletal Biology
- Neuroscience and Behaviour
- Endocrine Systems Regulation
- Reproduction, Genetics and Development
- Cancer Biology

In each module, students learn relevant communication and clinical skills, discuss related ethical and legal issues and attend community placements. Pathology, mechanisms of drug action and society and the individual (sociology, psychology and epidemiology) are also represented in every module. Each module builds on knowledge and skills from previous modules, and provides the basis for the subsequent modules as well as for Phases 2 and 3.

Student Selected Modules (SSMs)

In Phase 1, all medical students, with the exception of graduates, will be expected to study two SSMs per year, in addition to the core curriculum, in order to broaden their educational experience. These include:

- Science SSMs which provide for in-depth study of a chosen topic in biomedical or other sciences.
- Non-science SSMs for example short courses in modern languages, art, ethics and law.

PHASE 2: SCIENCE AND MEDICAL PRACTICE (Years 3 and 4)

Phase 2 provides integrated basic science/clinical teaching, which revises and develops the systems-based modules of Phase 1. There will be continuing development of the vertical spines and modules and a range of clinical attachments in teaching hospitals, district general

hospitals and within general practice and the community. Students will also take SSMs for in-depth study of topics of their choice.

In Year 3 students will have clinical attachments in:

- General Medicine
- General Surgery (including anaesthetics)
- Haematology and Oncology
- Care of the Elderly
- General Practice
- Orthopaedics and Rheumatology

In addition, weekly, student–led seminars and case presentations based on thirty-two core topics or conditions will provide a valuable means of achieving integration between the clinical and basic sciences.

Scientific knowledge and interests acquired by students in their intercalated BSc courses will also contribute to the presentations and to the learning programme.

Year 4 provides a programme which will enable students to integrate knowledge and understanding of basic sciences with clinical practice, particularly into the care of women and children, patients with neurological and psychiatric disorders and patients with infectious diseases.

Students will experience clinical attachments in:

- Women's Health (obstetrics and gynaecology)/Communicable diseases.
- Neuroscience and behaviour (neurology and psychiatry).
- Family Medicine (paediatrics and General Practice)

The year is structured to allow the students to apply:

- Knowledge and understanding of public health, epidemiology and the social aspects of illness for their prevention, the promotion of health and care in the community.
- Knowledge and understanding of the pathology of care and prevention, particularly with respect to communicable diseases and women's health.

PHASE 3: PREPARATION FOR PRACTICE (Year 5)

The aim of Phase 3 is to enable medical students to reach the standard of competence required to discharge the duties of a Pre-Registration House-Officer (PRHO) with confidence and enjoyment based on effective training and preparation.

Professional skills and competence are developed through experience:

- in Medical and Surgical Departments of a District General Hospital (DGH)
- in an Accident and Emergency Department of a DGH
- in General Practice
- in two clinical specialties of their choice
- during a period of elective study in the UK or overseas
- shadowing the PRHO post that they will take up after they qualify.

THE INTERCALATED BSc YEAR

All medical students, other than those who are already graduates, will normally be expected to take an intercalated BSc, usually as members of the Faculty of Life Sciences.

There is currently a wide range of Intercalated BSc programmes available to choose from:

These include:

- Anatomy and Developmental Biology
- Molecular Medicine
- Biochemistry and Molecular Biology
- Neuroscience
- Genetics
- Orthopaedic Science
- History of Medicine
- Pharmacology
- Human Genetics
- Physiology
- Infection
- Physiology and Pharmacology
- Immunology and Cell Pathology
- Primary Health Care
- International Health
- Psychology
- Medical Anthropology
- Speech Sciences and Communication
- Medical Humanities
- Tumour Biology
- Medical Physics

2.1.4. Guy's, King's & St Thomas's School of Medicine

King's College London was founded by King George IV in 1829 and was one of the founding colleges of the University of London. It is now an institution with many faculties, 17,160 students, occupies a leading position in higher education in the United Kingdom and enjoys a worldwide reputation for its teaching and its research.

The Guy's, King's and St Thomas' School of Medicine was created in August 1998 from the merger of King's College London (including the

former King's College School of Medicine and Dentistry) and the United Medical and Dental Schools. The School of Medicine GKT is the largest in the country and receives 360 under-graduate students every year. There are also nearly 600 post-graduate students and 400 staff.

A new medical curriculum is being planned which will begin in September 2003 and be implemented in subsequent years. It is divided into 4 Phases. Phase 1 will occupy the first 12 weeks (up to Christmas) and will introduce basic language and content in the basic sciences and the same in an introduction to clinical medicine. It will treat clinical material in terms of case studies. Also, from 2002, the School has been providing inter-professional teaching of communication and ethics. In the first year, after the Christmas break, there will be an written evaluation of this work and Phase 2 will begin, lasting through to the completion of second year.

Phase 2 will teach biomedical sciences, sociology and psychology oriented towards clinical problems. The Curriculum will place science in an appropriate context. Each week will commence with the introduction of a clinical case study. This will be followed by sessions on basic and clinical sciences to highlight the clinical subject and every week will end with an analysis of the session, which will bring the subjects taught together in a new clinical context. It is hoped that this will provide a stimulating learning experience and a memorable pedagogical experience. It will for the basis for revision of the subjects in the later years of the course.

In the first year there will be time for 13 case studies and 25 additional ones will be introduced in Year 2. These case studies will provide clinical examples.

Phase 2 will include clinical experience in the community and in hospitals. This focus will incorporate teachers of clinical and basic sciences, integrating their materials.

A pilot using case studies based on cardio-respiratory cases was conducted in Year 1 in 2002-2003. These sessions have been constructed differently over two weeks and have not been integrated with practical medical tools. The initial evaluation of these sessions has been very positive. Some of the learning sessions of the pilot will be included in the development of case studies for the following year.

The appraisal of Phases 1 and 2 is likely to consist of an evaluation throughout the two years, requiring written exams and a 30% pass mark to complete the first year. At the end of Phase2, Year 2, there will be written exams and an OSCE-type evaluation that brings together the various elements of the first two years, from clinical skills to other practical elements relating to anatomy, physiology etc.

The programme of SSMs (Student Selected Modules) will consist of 3 SSMs over the course of the first 2 years. In Year 1 there will be a block of SSMs to complete the year. In Year 2 there will be two SSMs. They will occupy one day a week with half the day as a fixed session and the other half as a flexible session.

The plans for Phases 3 and 4 are not as advanced as those for Phases 1 and 2. Phase 3 will cover Years 3 and 4. It will consist of a rotation of periods of intensive clinical experience on the wards, outpatients and community and other periods covering care subjects revising clinical problems, returning to and expanding upon the elements of basic sciences and two days dedicated to special study modules. The precise plan for Year 4 has not yet been developed.

Phase 4 will be the equivalent of the current Year 5. It will not come into operation in the new curriculum until 2007 and full details will be finalised later.

The integrated BSc programme will continue and will be promoted to new students from now. It is anticipated that the majority of these will

take place between Years 2 and 3 but can also be taken between Years 3 and 4 and Years 4 and 5.

2.1.5. University of Sheffield

The Sheffield School of Medicine was founded in 1828, in 1879 it merged with the Firth Collage and with the Sheffield Technical School in 1884 to form the University College Sheffield in 1897 and subsequently the University of Sheffield in 1905. It is situated in the fifth largest urban population centre in England, some two hours by train from London.

The School of Medicine merged with the Sheffield and North College of Nursing and Midwifery in 1955.

The student numbers have risen to 16,400 full-time and 4,000 part-time.

The Quality Assurance Agency(QAA) awarded the University an "Excellent" rating (22/24 points), a score bettered only by Cambridge. In 2001 The Sunday Times considered it to be the University of the Year for its notable successes in teaching and research.

In 1917, one of its Metallurgy students, Harry Brearly invented steel; a physiology teacher, Edward Mallenby, discovered vitamin C; in 1930, Dr. Cecil Paine, developed the first clinical cure using a crude extract of penicillin, and a Professor of Biochemistry, Sir Hans Krebs, won a Nobel Prize for Medicine and Physiology in 1953 for the discovery of what is popularly known as the "Krebs Cycle".

The School of Medicine receives 238 new students each year and its student population has risen to 1,100.

The University can call on the 800 bed Royal Hallamshire Hospital beside the University, the Northern General Hospital, with a Clinical Skills Unit with new technologies and a modern pedagogic focus for the teaching of medicine, among other hospitals.

Its management and teaching staff consider that the imbalance between the molecular and the social is one of the causes of illness. They are concerned that 30% of children in the area do not attend school.

They have implemented an induction programme in 90% of the local schools among children from 5 to 13 years old, to prepare students who want to become Doctors, awarding an annual quota of 20 places. The University of Sheffield has a great internationalist tradition, accepting under-graduate and post-graduate students for various countries and allowing their students to take an elective period outside the United Kingdom.

The study programme has been designed following the recommendations of the General Medical Council in its report "Tomorrow's Doctor" while preserving the strengths of the pre-existing curriculum. The course leads to degrees such as Bachelor of Medicine and Bachelor of Surgery (MBChB).

The medical course spans 5 years and its principal objectives are:

- To provide the student with the essential personal and professional skills required for the rest of the course and their future careers.
- To integrate the basic sciences with clinical sciences throughout the course.
- To cultivate in the student an attitude of curiosity and a desire for intellectual exploration and critical evaluation.

The course is divided into 3 Phases:

- **Phase 1: Basic medical sciences that support clinical medicine.**
- **Phase 2: The basis of clinical skills and the clinical sciences related to them.**
- **Phases 3 & 4: Refinement of clinical skills, with special study modules and overseas electives.**

Phase 1 spans the first two years and covers the basic sciences that support the medical degree course. A significant part is takes place in Clinical Skills Unit of the Northern General Hospital, the wards of the nearby hospitals and case studies in community practice including General Practice and work at some social services locations.

The "system-based" structure follows the guidelines of the GMC. It presents the information in eight modules of 6 weeks each, covering the basic systems of the body and a "Medicine & Society" module taken at the end of the second year of Phase 1.

This Phase also includes 3 weeks of Intensive Clinical Experience that introduce the student to work on hospital wards alongside doctors, nurses and the rest of the professional health team.

Although it is obviously important to cover disciplines such as Anatomy, Physiology and Biochemistry, these are presented in an integrated manner within the study of the relevant body system. For example, in the Cardio-vascular System module the student will study the structure, function, pathology and metabolism of the heart. Additionally, aspects of Public Health, Ethics and other relevant subjects are integrated into the course in the Medicine & Society module.

The teaching takes place in practical classes (including dissection of the human body), lectures, tutorials and self-study periods. Clinical

demonstrations are used to illustrate relevant points. Computer based learning is routinely used during Phase 1 and the students' evaluations of this element show that it is well received.

The formal assessments in Phase 1 consist of written examinations (multiple choice questions related clinically to the case studies) and a practical exam. All the examinations must be successfully passed to be able to move on to the next stage.

If the student fails he has an opportunity to re-sit during the summer. Phase 1 becomes progressively more practical in such a way that, having passed the examination at the end of Phase 1b in the second year, the student will be ready for the introductory clinical work in Phase 2.

Phase 2

This is the most exiting part of the course when the student divides his time between the conference hall, the physiology laboratory, the dissection room, the hospital wards, the operating theatres and the out patients departments in order to have contact with patients.

The student begins with an introduction to Basic Clinical Skills in the Clinical Skills Laboratory and on the hospital wards, talking to patients (to note their clinical histories) and examining the principal body functions (physical examination). Some technical skills such as taking a blood sample are also covered in this Phase.

There are two clinical annexes, each of five weeks, with Consultants in hospitals in Sheffield and in the district hospitals in the surrounding area. These provide the best opportunity for gaining experience in noting histories and clinical examinations. Students are encouraged to use this information to make diagnoses. The student is treated as a member of the clinical team and he attends and observes many of the

daily activities of the team including surgical operations, radiographic examinations and pathology and outpatient meetings. He also begins to develop professional skills, attitudes and conduct and becomes closer to the patients.

At the end of Phase 2 the student will have the basic surgical skills that he will need during his career, an understanding of the variety of pathological conditions and professional attitudes that are essential to become a successful medical practitioner.

The students consider this to be the beginning of their journey in clinical medicine.

Phase 3

This Phase occupies the last two years and is clinically based. It is a period of study and of clinical experience that introduces the student to primary and secondary care of the patients with an emphasis on practical aspects of medicine.

Primary care teaching takes in the community and is centred on General Practice.

Secondary care principally covers hospital work in sub-specialist areas such as Gynaecology & Obstetrics, Paediatrics, Psychiatry and General Practice. Teaching and experience is also provided in many medical and surgical sub-specialities, including ophthalmology, cardiology, rheumatology, accident and emergency medicine, orthopaedics, dermatology, urology and the student will consolidate preliminary experience in general medicine and surgery. The students rotate through these disciplines in much smaller groups and receive training in various forms including group work, seminars, tutorials and lectures.

The emphasis is on evidence based learning and they are encouraged to learn investigate skills and to develop working in teams. The teaching of specialities includes presentations of group projects. During these two years the students have four blocks set aside for special studies. They have the opportunity to study areas of particular individual interest, including fields such as alternative medicine, specialist sporting activities, and media or arts studies. One of these blocks of time is for supervised research in an area chosen by the student. Some students have published articles as a result of their work during this period of their studies.

The elective period gives the student the opportunity to study medicine in any part of the world. Many students offer their services to help countries in the third world.

Phase 4

From January to May of the final year the students will be immersed in clinical medicine. The written part of the final exams will already have been taken and they will concentrate on becoming Pre-Registration House Officers (PRHO). Through being attached to a series of teams they will develop advanced clinical skills. They will "shadow" young doctors to develop the necessary competences to become PRHOs. By augmenting their practical work they will achieve the confidence levels needed to be a young doctor. Once they have successfully passed the clinical exam in June they will receive their degree as an MBCHb.

Intercalated Bachelor of Medical Science Degree

Once he has successfully completed Phases 1 & 2 of the course, the student will have the opportunity to apply to study for an intercalated degree in BMedSci. This year of study can be taken after any of Phases 2, 3, & 4. A wide variety of funded research topics is available

each year, including cancer, anatomy, physiology, psychiatry, immunology and pathology. The BMedSci degree provides the student with training and basic research methodology which will be well considered by employers in the medical field.

An organisation that supports the teaching is the Institute of Learning, which developed the new curriculum based on basic clinical integration and a focus on the 100 most frequently occurring clinical problems in medicine.

The Department of Medical Education has developed an education model based on information technology: the Sheffield Networked Learning Environment (NLE) that provides the medical students with learning support. It includes all the study guides for the full five years of the curriculum, information on future events in the faculty, the most useful web links to on-line resources and pedagogical resources used by doctors and lecturers and a discussion forum for each Phase of the course.

The School of Nursing and Midwifery at the University of Sheffield has a great tradition and is considered amongst the best of its type in the world. It trains nurses and midwives with an emphasis on primary care, but also developing numerous other practical and research skills and also offers post-graduate studies in areas such as gerontology, palliative care, mental illness, the disabled and ethnic minorities etc. It is a three year programme and the average age of new students is 26 years.

Foreign students are welcomed and many graduates move to work abroad.

To assist post-graduate students, the University of Sheffield has formed the Medical and Health Sciences Division that comprises the Schools of Medicine, Clinical Dentistry and Nursing and Midwifery with a

total of 34 Departments : 23 in the School of Medicine, 5 in the School of Clinical Dentistry and 6 in School of Nursing and Midwifery.

2.1.6. Imperial College

Imperial College London

The Imperial College of Science, Technology and Medicine is an independent academic institution of the University of London.

Famous personalities associated with the College include T.H. Huxley, one of the greatest scientists of the 19th century, the writer H.G. Wells, Sir Alexander Fleming and Sir Ernest Chain, discoverers of penicillin and Nobel Prize winners, and Patrick Blackett, a physicist and Nobel Laureate, among others.

Imperial Collage was established in 1907 with the merger of the Royal Collage of Science, the City and Guilds College and the Royal School of Mines. In 1988 the St. Marys Hospital Medical School was incorporated as was the National Heart and Luna Institute in 1955.

Recently, in 1977, the Charing Cross and Westminster Medical School and the Royal Postgraduate Medical School were merged to form, together with the existing medical departments of St Marys and Royal Brompton, the Imperial College School of Medicine.

The medical course spans 6 years and includes a modular Bachelor of Science degree (BSc) as well as the MB BS. The course follows the recommendations of the General Medical Council as set out in its document "Tomorrow's Doctor".

The structure of the course is fully integrated. It combines the traditional 2 year pre-clinical course, by 3 years of clinical pedagogical practice, where learning takes place in a clinical context directly related to clinical experience. There is strong emphasis on communications skills, medicine, law and information technology. 326 students enrol on the

course each year. There are 2,000 students and 900 teaching School and hospital staff, and four teaching hospitals.

The under-graduate programme consists of 3 elements that extend through five of the six years of the course: **Systems and Topics, Doctor and Patient,** and **Clinical Experience.**

Basic Course. This is an introductory course covering the structure of the programme and the principal subjects, and the concepts and skills that are required at under-graduate level. It includes sessions on information technology and a refresher course in science for those who did not study specific science subjects at "A" level. It provides an opportunity to meet personal tutors and other Faculty members who will direct and counsel students during their studies.

Systems and Topics. This courses precede and accompany the Clinical Experience course. In this part of the programme the student will learn what he needs to understand clinical conditions and how to manage them. It is grouped together with a number of inter-related disciplines in different areas, including basic medical science, clinical sciences and pathological sciences. The course topics are core fundamentals for understanding clinical medicine, but are not specific to particular body system.

They include:

- Infection, immunity and cell pathology
- Molecules, cells and tissues
- Nutrition and metabolism
- Introduction to drug therapy
- The human life cycle

Information technology is integrated in all the areas of the relevant courses.

The Systems and Topics courses vary in length. They take place throughout the core course with a gradual reduction in time from the first year as the clinical experience increases. The Systems and Topics sessions relevant to the Clinical Experience use a system of video links. The courses employ a variety of teaching and learning methods both traditional and innovative. These include lectures, practical demonstrations, problem-based learning, computer-based training and tutorials. The emphasis is on the students developing an understanding of the underlying scientific principles of clinical conditions.

Doctor and Patient. This course is taken, on average, for one day a week throughout the programme in the principal teaching hospitals. It provides the opportunity to practice clinical and communication skills in a hospital environment. Doctor and Patient comprises four elements: communication skills, basic medical practice skills, personal and professional conduct skills and problem solving skills. All these elements combine to prepare the student for clinical practice and motivate him to further develop them so that they can be applied to various clinical situations.

The teaching of communication skills begins in the first year. Working in small groups with tutors the student gradually develops confidence and competence in communicating with patients, their families and other professionals. From the second year the student learns to take a patient's history. This is broadly linked with the physical examination skills learned on the Basic Medical Practice Skills course. This course comprises regional anatomy, prosection, dissection, radiology and computer-based multimedia learning. Communication skills, the basic clinical and procedural skills (taking blood samples etc) are practiced in the skills laboratories before working directly with patients.

The objective of teaching personal and professional conduct skills offers the student a variety of skills. These include the necessary skills for self-management in the face of rapid changes in the health

service and medical knowledge and the ability to develop appropriate professional attitudes and values. In the first and last years the students attend sessions in the Business School. The subject of professional training is developed throughout the course. This include career counselling and an Introduction to Graduate Medical Practice course in the final year.

The course in problem-based learning comprises a series of clinical problems or cases in which the students work in small groups with a tutor. These relate directly to the work done in Systems and Topics and the Clinical Experience course. Each of the cases integrates sociological and psychological aspects of health and illness, epidemiology, public health, ethics and legal aspects that promote in the student the consideration of a wide range of the subjects that affect patient care.

Clinical Experience. This is an essential component of the course in which the student puts into practice his knowledge, the skills and attitudes acquired from the other courses. It is also the occasion for direct contact with patients, doctors and associated professionals that provides the opportunity to gain vital experience for professional development. Students begin to work with patients from the first year, as much in the community (for example in General Practice) as in the main hospitals. The amount of clinical experience grows gradually as the programme continues. The students are distributed in the clinical sites to suit the availability of each student. This allows them to assemble a portfolio of practice/learning gaining experience in all the principle clinical and specialist areas.

Additional to the core clinical related subjects, which all the students undertake, there are opportunities to follow an area of interest outside the core curriculum. There are many alternatives which can include complementary medicine, radiology, tropical medicine or an elective (often overseas).

Year 1. The Patient Contact course occupies one session per week almost throughout the first year. It is composed of three modules, one in each of the three terms. A team of General Practitioners supervises the first year. Projects are developed in small groups, are linked to a local General Practice, and allow for an understanding of health and illness from the perspective of the patient, his family and carers in various scenarios.

Year 2. This develops and applies the skills of taking patient histories and making physical examinations learned in the Doctor and Patient module. There are clear links between the Clinical Experience and the teaching of the relevant systems. There is an emphasis on the theoretical components and the clinical problems of the patients. In addition to these sessions the students participate in a introductory course in hospital medicine and surgery. The Patient Care course is also included, in which the students work with nurses and other health professionals in a hospital environment. On completion the student will be able to take a history and examine patients. This is in preparation for Years 3 and 4 when the students begin their specialist training.

Year 3. This year comprises the rotations that complete the medical/surgical attachments begun in the second year. They include respiratory medicine, anaesthesia and ORL; cardiology, gastroenterology, endocrinology, haematology, oncology, renal medicine and urology, infectious diseases and medicine for the elderly. These attachments are supported by relevant teachings in Topics and Systems and Doctor and Patient. The teaching teams are made up of doctors, surgeons and General Practitioners just as when the students are learning clinical skills in local general practice sites. At the end of this period the student will be familiar with a series of common acute illnesses and chronic conditions.

They will also be equipped to make basic diagnoses and management plans that will prepare them for the specialised rotations.

In addition to the Clinical Experience course in Year 3, the student will also begin his studies for the BSc subject of his choice.

Specialised Rotations (Years 4 or 5)
There are five 9 week rotations in the hospital. They include paediatrics, psychiatry/neurology/ophthalmology; gynaecology and obstetrics; musculo-skeletal medicine and surgical/general practice. The teaching sessions in both Systems and Topics and Doctor and Patient continue through all these attachments.

Final Phase (Years 5 & 6)
After the year of science or the specialised rotations, the student enters the final phase of the course. IT comprises three major rotations and one integration block. This phase of the course is designed to prepare he student for a final written exam and practical exams. It also provides the expertise necessary for the management of the daily care of patients, both primary and secondary.

The long rotations include core clinical experience in accident and emergency, general practice and a final attachment combining medicine and surgery. The sessions in Doctor and Patient that are taken throughout the attachments are designed as an Introduction course to Graduate Medical Practice. This focuses on the skills of personal and professional conduct and on the practical skills required by the Pre-Registration House Officer. It is supported by the professional work experience attachments (the "shadowing" of a House Officer). There are also components in the final phase in which a variety of options are available. The specialist selection module allows the student to choose from a wide range of areas of clinical medicine that are of interest to the individual. The 8 week elective period is traditionally taken either overseas or in hospitals or specialist units in the United Kingdom..

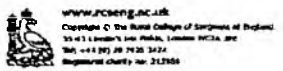
The Modular BSc Degree

This degree offers the student an additional qualification integrated within the 6 year course. Achieving such a degree is a valuable advantage in facilitating his future career and which gives him specialist knowledge and skills in a field of study related to medicine. It also provides a base for future research work.

The BSc course is a modular programme chosen from a wide variety of options in medical science, clinical science and other options grouped in the five principal schools. Students study some preparatory modules and a year of science. The programme allows the choice of a specialist discipline within a school such as:

- Molecular and cellular biology in medicine
- Mechanisms of disease and defence: infection, immunity and cancer
- Human Performance, measure and image
- Social medicine
- System based schools

Under the guidance of the BSc course supervisors, the student can select a path (such as genetics, cognitive psychology or cardio-vascular science) within an area of particular interest. The science year culminates with a research based project on earlier work undertaken in the chosen path, to deepen knowledge in the specific topic of interest.



2.1.7. The Royal College of Surgeons of England

The Royal College of Surgeons of England has its origins in the union of surgeons and barbers ordered by Henry VIII in 1540 to form the

Company of Barber-Surgeons. In the 18th century, through the development of anatomy schools and an academic basis for surgical practice through teachings and publications of noted European surgeons, the number and importance of surgeons grew and developed independent professional recognition.

In 1745 the surgeons broke away from the barbers and formed the Company of Surgeons that, in 1797, moved to its own site and received from the government the writings and specimen signatures of John Hunter (1728-1793), one of the most distinguished surgeons of the age. In 1800 the Company of Surgeons was granted a Royal Charter and became the Royal College of Surgeons in London, and later of England, building the beautiful building that it still occupies today.

It is an institution of great prestige, guardian of its traditions and exacting in all its processes.

The College:

- supervises training of surgeons in approved posts
- provides educational and practical workshops for surgeons and other medical professionals at all stages of their careers
- examines trainees to ensure the highest professional standards
- promotes and supports surgical research in the UK
- supports audit and evaluation of clinical effectiveness
- provides support and advice for surgeons in all stages of their careers
- provides a mechanism whereby trusts can seek independent advice
- houses a current and historical information resource centre for surgeons in the library and museums
- acts as an advisory body to the Department of Health, health authorities, Trusts, hospitals and other professional bodies

- collaborates with other medical and academic organisations in the UK and worldwide.
- seeks to convey the importance of, and provide support for, good, effective communication and interpersonal relationships between patients and surgeons

The College does not:

- Register or license surgeons to practice nor have responsibility for disciplinary actions; this is the responsibility of the General Medical Council (GMC)
- Process complaints from patients; this is another responsibility of the GMC or a function of individual hospitals
- Recommend individual surgeons to patients or offer patients medical advice; the College recommends that patients always seek referral through General Practitioners.

The College has the following Departments:

- Clinical Effectiveness Unit
- Raven Department of Education
- Examinations
- International
- Research
- Training

The international office exists to promote institutional links between the College and other providers of surgical education and training in Europe, and around the world.

The College is now recognised as an established international resource centre, and its international office provides a point of access for ministries of health and professional & academic institutions from outside the UK which express an interest in:

- educational programmes of various kinds:
  - hands-on skills courses, teaching safe technique in laboratory from the most basic level through to master classes
  - distance learning programmes, allowing trainees to remain on the job while undertaking their studies
- supporting print, video and CAL materials
- advice on the development and delivery of local curriculum (including assessment systems)
- advice on designing and equipping centres for teaching surgical skills
- associated staff development (training the trainer) programmes
- collaboration over research and audit activities, including epidemiological projects
- expertise in developing healthcare policy for the delivery of surgical services.

Skills centre teaching is developing world wide, and the College welcomes approaches from other centres of surgical and medical education in Europe and around the world which are concerned with: the need to utilise new technology, including collaborative TV links, to maximum effect, and...

- ...at the same time, to ensure high standards of practice underpinned by appropriate training
- the concern of governments around the world to ensure these arrangements are in place, as a guarantee of quality care for surgical patients.
- the challenge to design educational programmes to develop and maintain technical competence at all levels, from junior trainee to senior consultant...
- and to find ways of following this through with appropriate mentoring and support in day-to-day practice
- the changing nature of accreditation and the accompanying issues surrounding revalidation.

There are established links with academic institutions and officials in Canada, South Africa, Australia, the United States of America, Africa , Asia and the World Health Organisation.

Limbs & Things

2.1.8. Limbs & Things (www.limbsandthings.com)

Limbs & Things is a British company with 12 years experience in the manufacture and sale of clinical and surgical training models for hospitals, skills laboratories and healthcare companies. It has created hundreds of different models dedicated to areas of specific skills and, as technology and medical research has advanced, has adapted its models to these advances. The models are provided with a multimedia CD-ROM of instructions and appropriate surgical instruments and disposable and synthetic soft-tissue models required for training purposes.

3. Conclusions

It is premature to advance conclusions of a programme that has barely started and more so with the unilateral viewpoint of one of its participants.

With an apology in advance, I should like to offer the following observations:

It is interesting to contrast 2 cultures, 2 societies, 2 health systems and 2 systems of health education in Britain and Colombia.

There were questions that arose on our side such as if to combine education and technology taking into account the supposed difference

of nearly 500 years in historical and cultural development was feasible. Also, how would we apply their model to ours? On the other hand, why had we chosen Great Britain for our interests? Culturally, geographically and politically are we not in the sphere of influence of the United States of America?

The progress that the United Kingdom has made and continues to make in many facets of its society is obvious, and it is logical to consider its health and education models as advanced albeit imperfect, as they themselves recognise.

They honour their traditions while employing modern technology in the improvement of processes. On the other hand they maintain an admirable pattern of cohesion which allows a powerful institution like the General Medical Council to control certification and provide guidance for medical education. Its document "Tomorrow's Doctors" is a profound reflection and an action plan for its Doctors in the new reality of society. In the visits to its 25 Faculties of Medicine they have supervised the development of the new curriculum that has general and obligatory aspects, (core and flexible). The integration of the basic sciences with clinical sciences is implemented from the first year, when contact with the community and the patients is initiated in targeted and supervised programmes. Their communication skills with patients, families and health staff also merit special attention. The use of new technologies to develop skills with which to deal with patients is also highly noteworthy, as is the understanding of the imbalance between the social and molecular aspects, the stimulus of working in small teaching groups, the methodology of studying common clinical problems and the integration of the basic sciences, the clinical and social studies, the feasibility of obtaining, in parallel to a medical degree, a science degree that strengthens the doctor's professional future, the authorising of private study time for self-teaching that can enable the better use of information technology and other modern pedagogical resources, the basis for research, the competencies in areas such as

ethics, law and finances, the "elective " component, which allows students to experience the basic features of other countries in a globalised world, amongst others.

Britain's health system, with its emphasis on primary care in a model of community medicine centred on the General Practitioner (GP) as the main player, combined with the traditional system in which the majority of hospitals are teaching hospitals that are being modernised and managed by private investors, are favourable to the teaching of medicine. Having entities that evaluate the quality of the institutions and procedures is also beneficial.

However, the failures of the system are also recognised. The long waiting lists for many patients, hospital professors require better preparation for teaching, the shortage of medical staff and other health professionals to meet the demands of a gradually aging population with increasing pathologies such as cancer, cardio-vascular disease and mental and cognitive illnesses. To combat this, the new curriculum attempts to prepare a better GP to meet the requirements of society in the United Kingdom of the 3rd millennium.

It is important to mention that the new British curriculum has barely been implemented in some medical schools and will require future evaluation and the appropriate modifications.

The visit of the academics to the United Kingdom has allowed them to understand in more detail our pedagogical and healthcare environment affected by Law 100 on one side and in the public universities also by Law 30. Additionally, the analysis must consider the situation of daily violence in Colombia and the progressive impoverishment of our society that the medical profession has not escaped, and which has led to the consequent suffering of patients and their families.

I believe that the objectives of our mission were achieved in regard to the understanding of the curricular aspects, only partially in the post-graduate area, where we were unable to receive a deeper understanding, tangentially in the area of research given that we were unable to visit centres in this field, post-graduate education merited a similar approach. The new pedagogical technologies could be appreciated as we had more opportunities, international accreditation is a path worth undertaking and student and teacher exchanges are a real possibility.

Some preliminary proposals can be suggested once our reports have been analysed and discussed, such as to join forces for the development of new pedagogical technologies, joint research with the possibility of British financing etc. As long as our Faculties of Medicine, students, teachers and directors fully understand the objectives of the British-Colombian Mission incorporate them and study all the potential for better development of our medical academia, it will impact positively on Colombian society and the tremendous visionary force of Dr. Julio Enrique Ospina Lugo will have been worth the effort.

We are taking these first steps and can reaffirm the ancient Chinese proverb:

"A journey of a thousand kilometres begins with the first step".

REPORT ON THE FIRST ANGLO-COLOMBIAN HEALTHCARE MISSION 23 MARCH – 3 APRIL 2003

BACKGROUND

In November 2001 a major conference took place in Bogota, Colombia under the auspices of the Asociación Colombiana de Faculdades de Medicina (ASCOFAME) and the British Government. The outcome of that meeting was the decision on the part of ASCOFAME to consider the reformulation of their systems of health care and medical education, taking into account the British experience. The exercise was designed in three stages. The **first stage** (known in the UK as the 'inward mission') comprised the visit of five Deans of leading Colombian medical schools to the United Kingdom, in order to study our techniques and methods. This visit took place in February 2003, and was funded by the Department of Trade and Industry. The Deans, lead by the Executive Director of ASCOFAME Dr Julio Ospina, spent a week in the UK. Their first day comprised an introductory workshop at the Royal Society of Medicine, which included contributions from the General Medical Council, NICE, QAA, CHI and a number of other institutions. Following this, the Deans visited University College London, the University of Sheffield, Imperial College London, The Guys, Kings and Thomas' School of Medicine, and the Royal College of Surgeons. A full report of the mission was compiled by Professor Gustavo Pradilla, Vice President of Ascofame and Dean of the Industrial University of Santander.

The **second part** of the exercise is to comprise three visits by medical experts from the United Kingdom, to medical schools in Colombia, in order to gain knowledge of their facilities and methods, and to issue a report. The first of these visits took place from 23 March to 3 April 2003, and what follows is a report on this visit. Further visits are

planned for September 2003, and March 2004. The **third part** of the exercise will be a major Anglo-Colombian conference to be held in Bogota in October 2004, at which the final results will be considered, and recommendations made for the reformulation of the Colombian system of health care and medical education.

REPORT ON THE FIRST VISIT OF THE SECOND PART OF THE EXERCISE

The delegation consisted in Mr Adrian Marston DM FRCS (Leader), Professor Anthony Firth PhD, and Dr Helen Graham FRCGP. Their curricula vitae are summarised in Appendix 1.

Day 1 23 March

The delegation left London, Gatwick on the morning of 23 March, and arrived in Bogotá, via Caracas, at 1900 hours local time. After an overnight stay in Bogotá, they flew the following day to Bucamaranga where they were met by Dr Mario Gonzales and taken to the Hotel Dann Carlton, which was to be the location of the conference.

The proceedings opened by brief introductions by **Mr Adrian Marston** and **Dr Julio Ospina,** setting out the historical background of the exercise and the current objectives of the mission. Dr Ospina explained how the Colombian system of health care delivery and medial education had been reviewed in the past by a number of invited delegations from overseas, namely from Germany, France, and on two occasions from the United States. While appreciating the positive elements and helpful suggestions made by these visitors, none of them, due to demographic and societal differences, had produced a scheme which could be adopted in its entirety, and attention had been directed to the United Kingdom. Dr Ospina enunciated five reasons for the interest that ASC OFAME had taken in British medicine. These included the traditional stability of British society, its emphasis on equality, the 'free at point of delivery' nature of the NHS, the scientific

basis of treatment options, and most importantly the accent on the provision of primary care. The economic and social advantages of the gatekeeper system (referred to as the "medical filter") were emphasised.

Dr Helen Graham described in detail the medial curricula which had been developed over the last twelve years at the GKT School of Medicine, following publication by the General Medical Council of 'Tomorrow's Doctors'. The course included components of both 'core' and optional modules, and was aimed to produce a competent and reliable pre-registration House Officer. The underlying principles were those of vertical and horizontal integration. By vertical integration was meant the continuing combination of basic science and clinical studies over the four-year core course. In year 1 there was heavy emphasis on basic science with a small clinical component, and this ratio was progressively reversed, so that by the time that year 4 was reached, the training was heavily directed towards the clinical aspects. By horizontal integration was meant that instead of teaching a series of "...ologies", in separate packages, clinical problems were addressed by a variety of contributing specialists, including basic scientists. Thus, to take an example, anatomists and physiologists, anaesthetists, respiratory physicians and pharmacists, general practitioners and cardiothoracic surgeons would discuss a patient with chest pain. Teaching took place in small group seminars, one-to-one tutorials in general practice, and was spread through the main university hospitals, district general hospitals and local practices. There was a strong emphasis on the importance of primary care throughout the whole of the course. In depth studies are undertaken throughout the course as "special study modules" in a range of subjects including basic science, clinical studies and non-medical subjects in other faculties.

Professor Anthony Firth then described the course at Imperial College, which was based on a rather different philosophy. By tradition, Imperial was an institution devoted to science and technology, and

the accretion of a School of Medicine was a comparatively recent development. Imperial had thus decided to play to its strength, and provide a course which laid emphasis on the scientific basis of medicine. Central to this idea was the inclusion of a mandatory BSc year (the ICL equivalent of the KCL "special study modules", during which the student studied a chosen area in depth, and acquired a scientific diploma. A few students, who were particularly scientifically minded, could go on to study for an intercalated PhD. In the Imperial system, the basic and clinical subjects were regarded as 'core', but there was considerable flexibility in the BSc component.

The presentations by Dr Graham and Professor Firth were well received, and a lively discussion followed.

Day 2 Tuesday, 25 March

The day began with a 25-minute presentation by Dr Graham on family practice and community care in the UK, with reference to undergraduate education. **(NB. For the purposes of this report, the terms "general practice" and "family practice" are interchangeable. "Primary care" includes nursing and other components of the care package).** This was followed by presentations from the Deans of the Medical Schools of Bucamaranga (UNAB), Cartagena, Javeriana, Metropolitana, Military University of Nueva Granada, del Norte, Rosario, Sabana and Santander (UIS). Each Dean presented his own curriculum and described the extent to which reforms were taking place. There was much common ground, in that each speaker emphasised the importance of creating a broadly-based educated doctor, with due attention to the social and humanistic side of the training. One common thread was that virtually all Colombian medical students decided early on in their training on pursuing a specialist career. As a result of this, the conception of 'flexibility' was quite different when viewed from the British and Colombian point of view. British medical training is designed to produce

a broadly educated pre-registration house officer, who can then opt for a specialty including that of general practice. The basic scientific and clinical options open to the student are intended to broaden his or her training, according to abilities and tastes. In contrast, specialisation in the Colombian scheme takes place at a much earlier age, and flexibility of options is designed to provide preliminary training in a chosen specialist area. General practice is not a considered option, because it is not recognized as a specialty on the same level as hospital-based disciplines. It remains the case, as obtained in the United Kingdom two generations ago, that a general practitioner is regarded as someone who has 'stepped off the ladder', and been unable to secure a satisfactory hospital training.

The mission then moved to the basic science laboratories of UNAB, on the medical campus. The Departments of Anatomy, Histopathology and Morbid Anatomy were conspicuously clean and well maintained. Following lunch by invitation of the Dean, Dr Camacho, and the Faculty of UNAB, we transferred to UIS, where we were welcomed by the Dean, Dr Gustavo Pradilla, Dr G Gomez and by Dr Favio Oliver Grimaldos, Director of Medical Education.

UIS (Universidad Industrial de Santander) was established in 1948 as a public scientific and technical university serving the North Eastern region of Colombia. The health faculty was founded in 1968. There are some 5,000 students and 4,500 postgraduates. Some 1,300 applications for entry are received annually, of which 110 are admitted, according to their performance in the State School examinations. These students make a very modest contribution to their expenses, according to their resources, and this may be as low as $10 per semester. It is unusual for anyone to pay as much $350 as compared with the $2000 which they would be expected to produce at a private university. The course lasts for six years and a new curriculum was introduced in 1997. The first five semesters are devoted to basic sciences, and those from 6 – 10 to clinical subjects. This is followed by a rotating

internship year. There is as yet little connection between the basic science and clinical components of the programme.

A visit to the simulation facility developed by Dr Marta Agudelo was of great interest. Dr Agudelo has designed a series of plastic and textile models, which can be used to demonstrate procedures such as opening and closing of the abdominal wall, suturing of perineal tears, and palpation of breast lumps. The demonstration was followed by a visit to the Immunochemistry and Molecular Biology Laboratories and the day finished with a 'Colombian evening' at the Commercial Club

Day 3 Wednesday, 26 March

The morning was devoted to extensive discussion of the training programme at **UNAB** (Universidad Autonoma de Bucamaranga), which was introduced by Dr Norma Serrano, Director of Education. UNAB is an autonomous private non-profit making university at which students pay their fees, and the School of Medicine was set up on 1 August 1996, as the public universities could no longer meet the demands of the region for health care. There are some 580 medical students and 123 teachers, one-third of whom are whole time. Last year the school received 200 applications, of which 90 were accepted. Acceptance is based on school examination results, together with an interview by a panel of teachers, and psychological testing.

The curriculum, which was totally revised in 1996, lasts for six years including a final internship year, and is integrated vertically and horizontally. The first three semesters are largely devoted to the anatomy and physiology of the healthy human body, but at the same time the students venture into the community to see the conditions under which their future patients live, with the associated socio-economic problems. At this stage, the contacts are non-medical. Over semesters 2 and 3 the concept of illness is developed, with some

emphasis on primary care. At the end of this process the student should have a clear idea as to how illness evolves in a healthy human being. Semesters 4, 5 and 6 contain increased clinical content, and the introduction of microbiology, histopathology, and pharmacology. Sections 7, 8 and 9 are heavily clinical, covering surgery, gynaecology and obstetrics and paediatrics as main areas, with their associated sub-specialties. Options constitute some 5% of the total course. Teaching is mainly in small groups, and is carried out by a combination of basic scientists and clinicians. There is a student assessment process, and a student who is obviously not fulfilling his/her potential is appropriately counselled. A facility exists whereby senior students can assist those who are falling behind or experiencing difficulties. Certain 'competences' are examined including language skills (English is encouraged as the first foreign language), sport and information technology. Finally, the intern year is divided into three 4-month attachments, involving medicine, surgery, obstetrics and paediatrics, which may be held outside the main university hospital. As in other schools, each newly qualified doctor is obliged to spend a year in an outlying district.

The members of the Faculty all agreed on the great importance of training primary care doctors, to which the course is definitely directed. However, it was apparent that, in common with other Colombian schools, the overwhelming majority of the students intended to become hospital specialists at the end of their training. At this early stage, because the course has only been running since 1996, it is impossible to determine the final destination of this cohort of trainees.

Day 4 Thursday, 27 March

This day was spent at the **University of Cartagena**. Cartagena is one of the most historic cities in Latin America, having been built as a fortified walled town by the Spanish in the 16th Century. An unsuccessful assault upon the city was carried out by Drake in 1585.

The university was founded in 1827 and has 6,000 students, of whom slightly under 1,000 are in the school of medicine. 3,000 applications are received each year, of which around 120 are accepted. This is a state university and the fees are correspondingly low. The course, as described by the Dean, Dr Gonzales, is of a relatively conventional nature, and starts with a two-year period in basic science, followed by a series of attachments to the usual services, including medicine, surgery, psychiatry etc. An unusual feature is the location of the University Hospital immediately next to the Medical School. This is in contrast to the situation in many Colombian schools, where the students are taught in a number of outlying hospitals at some distance from the centre. However this convenient arrangement is hampered by the frequency of strikes that close the hospital for several months each year.

The Cartagena Medical School has an excellent physiology department, and ranks highly in respect of its research. This is in the main due to the work of Dr Carvallo, who is investigating the molecular nature of mite antigens in the causation of asthma, which affects a high proportion of the population (7% of children in the Cartagena area). By the use of recombinant techniques he is attempting to isolate molecules of weaker antigenicity, with the eventual possibility of raising a vaccine.

Following our departure from Cartagena, the party travelled along the coast road to Barranquilla, some sixty miles to the east.

Day 5 Friday, 28th March

The following day started with a visit to the **Universidad Libre** which lies to the north of the city of Barranquilla, where we were welcomed by the Dean, Dr Tache. The Universidad Libre was founded by General Benjamin Herrera, some eighty years ago. It accommodates 30.000 students in its seven campuses (Bogotá, Cáli, Pereira, Cúcuta,

El Socorro, Cartagena, Baranquilla) of which that at Baranquilla is the largest. The Baranquilla facility originated with the Law School in 1956, and now comprises some 5,000 students on campus, including all disciplines. The Medical School, which was established in 1974, has some 900 students. 500 applications are received each year, of which 100 are selected on the basis of the competitive state examination, and an interview. Of the teachers, 22.6% are whole-time and 60% part-time. The University is a private foundation, but non-profit making. The course is divided into ten semesters, the first five of which are devoted to basic science and social studies, including (apart from the usual anatomical and physiological disciplines) genetics, psychology and basic epidemiology. However, although there is some patient contact during this period, vertical integration is as yet incomplete. The succeeding five semesters are more clinically orientated.

In particular, there is an excellent library and good staff accommodation. The dissecting room was well-maintained and displayed an impressive number of injected specimens made by the students. The students start at 17 to 18 without much basic science. The University runs a course in surgical instrumentation, designed for operating theatre assistants. and using an impressive range of simulated operation models, without, however much emphasis on endoscopic and minimal access techniques. **We were greatly impressed by the open and happy atmosphere at Libre, and by the obvious successful interaction between staff and students**

From the Universidad Libre we travelled to the **University Hospital of the Universidad del Norte.** This is a very modern unit, but at present only holds sixty beds, devoted to specialities such as intensive care, ophthalmology, and a number of out-patient facilities including a day case unit. There are 17 consulting rooms and a CT scanner, one of seven in Barranquilla, most of which are in the private sector. . There is a small Reference Library linked to the main Library in

the Medical School. It is hoped to expand this hospital very considerably, and part of it is already completed. The Medical Director, Dr Diego Castresana Diez, was especially helpful in showing us round, and produced a masterly exercise in simultaneous translation during our discussion with the staff and students. The basic problem is that the University Hospital is at a very considerable distance from the University itself, which lies at the north of the city, whereas the hospital is in a deprived area towards the south. It took three-quarters of an hour to get from the hospital to the Medical School, where we were welcomed by the Rector, Dr Jesus Ferro Bayona, Dr Castresana and other teaching staff, and were given a good overview of the curriculum.

The University was founded in 1966 by a group of prominent citizens of Baranquilla. It is a private non-profit making institution. Students from poor backgrounds are assisted by means of fourteen scholarships under the title ' The Yellow Oak'. The medical course has recently been totally revised. It is fully integrated both vertically and horizontally. over ten semesters. Of all the schools visited, the programme at the University del Norte approximates most closely to the current UK model. We were impressed by the work of Dr Claudia Romera Bero in collaboration with Oxford University and the Department of Immunology and Molecular Biology of the London School of Hygiene and Tropical Medicine.

The final visit of the day was to the **Universidad Metropolitana.**. This is a 'Higher Science Centre' with faculties of medicine, nursing, physiotherapy, dentistry and psychiatry. There are eleven pregraduate and fifteen postgraduate programmes. We were met by the Rector, Dr Eduardo Acosta Bendec, and a panel of professors including representatives of otolaryngology, genetics, paediatrics and psychiatry. The University was founded 27 years ago, and lies close to the Metropolitan Hospital. The medical faculty receives between 100 and 120 students bi-annually, a yearly total of 240. The course is traditional

in nature, and comprises five semesters of basic science (anatomy, physiology, biochemistry etc) and six clinical semesters including semiology, internal medicine, paediatrics, and obstetrics and gynaecology. Internal medicine and surgery are taught in the sixth and seventh semesters. No written material was available to us, so that it was difficult to get an exact plan of the curriculum, though we were assured that integration of basic and clinical aspects was intended. Students are admitted on the basis of the results of the state examinations, a personal interview, including a commentary on a historical or cultural piece of literature, and psychometric tests. There is some degree of inter-professional training, with the medical students and nurses attending the same course of instruction in the early stages. Following the eleven semesters there is an internship of one year, including six months in regional hospitals and some work in the Intensive Care Unit. There is some exposure to community practice in the sixth year. It was not possible to determine the career path or final destination of the students.

Following this session we visited the Library, and this was followed by a lively debate with the medical staff and students, with Dr Graham explaining how a clinical case scenario by audiovisual material could be used as a combined exercise in scientific and clinical instruction. There was much interest expressed in the role of the general practitioner, and it was clearly not apparent to the audience that general practice or family medicine in the UK is regarded as a specialty, with a formal training course and assessment programme, equivalent to that of hospital disciplines.

Day 5 Monday, 31 March

Universidad Javeriana. We were welcomed by the Dean, Dr Francisco Henao. The University was founded in 1621 and competes for antiquity with the University of Rosario. In 1767 was enriched by the Jesuits expelled by Charles III from Spain. No students were

accepted until the 1800s. The modern faculty was established in October 1930 and the Medical School created 60 years ago in 1942. It has graduated 5,000 doctors over sixty years. At present there are 700 undergraduate and 400 postgraduate students. The medical faculty is one of four, the others being those of science, engineering and economics. The University is in third place as regards income. It is connected intimately with the Hospital San Ignacio and all the doctors at San Ignacio have appointments with the faculty. About 1,000 applications are received each year and the University takes in 100 students per semester. It is a private school and the fees are slightly higher than other faculties, though they are regulated by government. The students are selected on the basis of the results of the state examination, together with a three to four minute interview by both Deans (see below). Apparently much weight is given at this interview to an expressed intention to be a doctor at an early stage in life. As a result of this preliminary interview a further interview is undertaken by two teachers and a psychologist. This decides the 100 successful applicants. No preference is given to Catholic students, although the University is a church foundation. The fees are $1,000 to $2,000 per semester. The ratio of female to male students is 60/40. The drop out rate is not known. 20% of successful applicants are unable to afford the fees and no scholarships are available, however Eco Petrol Union will assist in difficult circumstances, the students are allowed to pay their fees by instalments, and some interest-free loans are available.

Each faculty at Javeriana has two deans. One is a Civil Dean who would be a physician and the other a Media Dean who looks after the environmental and moral welfare of the students, together with support in sports, leisure and religious activities. Funding for the University is largely provided by the students' fees, business contributing some 15-20%. There is no support from either the church or the government. A certain number of private enterprises within the University, such as the Library, the bookstore, printing, insurance and catering help to

provide finance. There are two postgraduate institutes, namely genetics and public health.

The facilities include two well-equipped lecture theatres holding 100 students. The basic science and clinical courses are entirely separated, and there is no patient contact for the first two years. (This seems paradoxical in view of the close proximity of the hospital and school). Anatomy and physiology are taught in semesters 1, 2 and 3 by means of formal lectures, practical classes, computer courses and tutorials. Assessment is carried out by examinations in anatomy and physiology yearly, and daily and weekly tests. A study was made of traditional and new learning methods, and it was concluded that the eventual outcome did not differ between the two.

The genetic institute, directed by Dr Zarante Montoya, contains 50 staff and 20 postgraduate students and studies genetic illnesses such as cystic fibrosis. It has support from the NIH and works closely with the faculties of biology, science and nutrition. The staff are expected to contribute 10% of their time to teaching – the rest to research. The unit also provides a free counselling service for families and contributes to the Ethics Committee.

There is no student accommodation on campus.

The Library at Javeriana, under the direction of Dr Luz Maria, is a most impressive facility. It is almost certainly the largest and most comprehensive university library in Latin America. It is open 24 hours a day during the week and 6am to 7pm on Saturdays. The medical students are the principal users. There is extensive Internet facility and inter-library loans are available within 24 hours. Every leading British and American medical journal is available in hard copy. Terminals are provided at each desk so that students can use their own laptops to access the entire Library network. We estimated that the Library must consume some 5% of the University budget.

We were able to visit the A&E Department of San Ignacio Hospital, which receives some 90,000 emergencies per annum. It is divided into surgical, general medical and paediatric sections. We attended a teaching session by a junior surgeon, Dr Lehmann, and were shown a young man with suspected acute appendicitis, who had been seen and clerked by a student, the results then being checked by Dr Lehmann. Basic investigations such as leukocyte count and haematocrit were instantly available, and an ultrasound scan was awaited.. Apparently, if the diagnosis was confirmed the patient then would be transferred into the hospital, whereupon the operation would be carried out either by the consultant or the chief resident, with the consultant assisting. This is standard practice in that each patient, except in cases of extreme urgency, is seen initially by a student before a medical decision is reached. We spoke to some students and asking about their career intentions: there seemed to be a preference for psychiatry, general medicine and public health.

The undergraduate programme was described to us by Dr Mary Bermudes Gomez, Director of Undergraduate Education. There is very little in the way of vertical integration and, as mentioned before, basic and clinical studies are kept entirely separate. The professors confessed that the curriculum is somewhat rigid, and difficult to change. Following graduation the student does an obligatory one-year in rural practice and then virtually all of them choose to do postgraduate studies in a specialty. There is no formal teaching in primary care, and although there is a School of Nursing in the University, there is no interactive teaching. We then had a description of the 'aging institute' by its Director, Dr Gutierrez. There are only 26 geriatricians in the whole of Colombia and the speciality has hardly developed. The geriatrician has eleven beds in the hospital, which seem to be used mainly for research purposes. An interesting development was the creation of an international group of centenarians, with a view to studying the factors favouring longevity.

Our next visit was to the Medical School of the Military University: **Universidad Militar de Nueva Granada.** (Nueva Grenada was the name of Colombia before Independence). where we were welcomed by the Dean, Dr Diego Rosselli, who is the recently elected President of ASCOFAME. It lies 5km from the main Military University, but immediately next to the Military Hospital, which was founded in 1962 and is the second largest teaching hospital in Colombia, with 650 beds. 13,000 operations are carried out each year, mainly for trauma. There are between one and five amputations per week, mainly resulting from land mine injuries. Because there are many veterans who have the right to be treated, experience with prostatic cancer is extensive. The Hospital is a nation-wide referral centre for tropical illnesses. There is no nursing school The total patient base of the hospital is some 600,000 including active military personnel, retired and families.

The budget of the Military Hospital is bigger than that of the University. The School of Military Medicine was founded in 1978, as an entirely postgraduate institution, with alternating military and civilian Deans. Undergraduate students were accepted shortly thereafter. The School receives fifty students per semester. Initially there are some 1,500 applicants, which are reduced to 250 by a local examination. These are further reduced to 100 by interview, and finally 50 are selected. Two-thirds of the students are female. Although the University is a public foundation it only receives 9% of its budget from the state, and is therefore obliged to charge fees, although at $1500 per semester these are considerably less than in most private institutions. Applicants from military families are given a 30% discount.

The curriculum is in three parts; namely basic science, social medicine, and clinical subjects, which are kept separate. The first five semesters are concerned with sociology and biochemistry, anatomy, physiology and embryology, molecular biology, genetics and semiology. Initial

patient contact and elementary medicine start at semester 6, and the remainder are devoted to surgery and urology, paediatrics, psychiatry, and obstetrics and gynaecology. Military studies are provided horizontally throughout the course, and are retained by popular demand. Extensive tuition in English language is provided. The internship year is spent partly in the University Hospital and partly outside, and there is a subsequent revision period in medicine, surgery, obstetrics and paediatrics. . Some training is undertaken in semi-rural settings in peaceful areas.

There are 300 postgraduate students who are taking courses lasting three to five years in anatomy, surgery, maxillofacial, paediatric surgery, plastic surgery, dermatology, O&G, rehabilitation and urology. Additionally, there are subsequent courses available in sub-specialities lasting two years.

The School maintains 21 whole-time and 11 part-time teachers. There are nine teaching rooms, and laboratories for anatomy, biochemistry, microbiology, histology, genetics, physiology and infectious diseases. It is planned to build a new facility very soon, to include a simulation lab, a molecular biology laboratory and facilities for experimental surgery, together with four new lecture theatres. There is a good virtual lab for anatomy and physiology and the lockers are well designed. Research is carried out into yellow fever, malaria, tissue culture, stem cells and Dengue fever in a well-provided microbiology laboratory.

The Dean was extremely frank with regard to the perceived weaknesses of the course. In his view there were too few full-time teachers, and the curriculum was somewhat rigid. There was little participation of students in curriculum planning, and lack of follow up of the alumni. It was noted that in the final state examinations the Military University tended to score rather low. However, it must in fairness be stated that these shortcomings are by no means unique to

the Military School, and it was clear that the Dean is fully determined to effect improvements

Day 7. Tuesday 1 April

Universidad de Rosario. Rosario University was founded in 1653 by Father Torres of the Dominican Order. Somewhat to the distress of the Dominicans, the Founder insisted that the University should be a lay institution, and appointed King Philip II as its patron. The original foundation consisted of faculties of law, rhetoric and philosophy, and medicine was added a little later. In spite of successive civil wars, the University has continued to teach uninterruptedly for 400 years. Of 51 Presidents of the Republic, 29 have studied here. The University is situated in the heart of the Candelaria district of Bogotá, a jewel of 17th century architecture, surrounded by large concrete modern buildings. It is centred on a cloister where there is also a small chapel with a baroque ceiling, still in use. The archives include ancient manuscripts, including works by Galen.

The present University has 2,000 students. The Medical School, which has trained 34 cohorts of medical graduates. includes faculties of medicine, physiotherapy, audiology and occupational health. Fees are approximately $2500 per semester, as compared with the state fees, which are in the region of $1300. The curriculum is relatively conventional, with separate semesters devoted to basic sciences and clinical disciplines. During semester 5 there is a mandatory research project, carried out by groups of three students, which contributes to the overall assessment. The best paper is rewarded by a prize, and is published in the Medial School Journal. An interesting feature was that each student has two tutors, one being a professor, and the other a senior student, who can comment on his/her progress and provide advice. 90% of the students intend to take up a hospital-based speciality. Exposure to primary care takes place at Nocaima, a village 69km from Bogotá, which has been adopted by the school. Flexibility

occurs during the internship year, in that the intern is free to choose his/her own rotation, if accepted by the Dean. There is an excellent library with good Internet communication facilities. Rosario subscribes to the scheme run by ASCOFAME and including 16 schools, which provides Internet access at bargain rates.

The Mission was welcomed by the Rector, Dr Per Knudsen, a previous Colombian Ambassador to Germany, and were shown round the Medical School by Dr Jaime Ruiz, Professor of Reproductive Medicine and Epidemiology. We were able to visit a class in the biochemistry department, where the students were analysing urine samples. The microbiology department was also impressive. Any death from unnatural causes is reported to The Institute of Legal Medicine, and if the corpse is not claimed by the family, it is made available for dissection in the Anatomy Department at Rosario, so that there is no shortage of cadavers.

Our final visit was to the **Universidad de la Sabana**, which is a private university situated at Chia, some 20km north of Bogota. where we were welcomed by the Dean, Dr Osorio, and the Vice-Dean, Dr Restrepo, an orthopaedic surgeon. Sabana was founded by Opus Dei, 25 years ago, and the Medical School is nine years old. Mainly concerned with business and industrial studies, it nonetheless includes faculties of paediatrics, medicine, nursing and engineering. The University receives no state funds but is supported by local businesses and the Church. Although not officially Catholic, and giving no preference to Catholic students over those from other faiths, Christian teaching forms part of the course. There are 854 students and 300 staff. . The school aims to attract poor and ethnic students and many of them have scholarships. A few mature students are accepted.

Students arrive at between the ages of 16 and 18 years, and some of the teachers commented that many of them have not acquired the capacity to learn, and are uneducated in basic sciences such as biology

and chemistry. The training emphasises public health, family medicine and health management. There is a seven-year course, six semesters for basic science, six for clinical teaching, and two for rotating internships. Clinical contact with patients takes place at semester 5 to 7. We were able to view some well-constructed video loops, combining basic science with physical examination and pathology. At a vigorous discussion, it appeared from the Chief of Physiology that there was good integrated teaching of basic science and clinical cases in the first part of the curriculum, although there were no direct contacts with patients.

The Sabana campus is exceptionally attractive, with spacious and well laid out gardens and buildings. There is a well-stocked Library and excellent sporting and recreational facilities. . There is a good simulation laboratory devoted to training in gynaecology, paediatrics and proctology, which is shared by the nurses. There were two interesting features, which appeared unique to Sabana. The first was that of a 'virtual ward', for the development of practical professional skills, with plastic models occupying beds which enabled nurse trainees to move and treat them. The second was a therapeutic training facility, whereby a student was required to use a computer screen to prescribe for a given clinical problem, giving appropriate drugs in the correct dosage. Each dose was followed by an alteration in clinical parameters (blood pressure, heart rate etc), and all too often a mistake would be made resulting in death of the "patient"! Understandably, newcomers to this method of teaching found it quite stressful.

Attached to the Sabana school there is a modern and well-equipped rehabilitation centre with hydrotherapy and other treatment facilities

Day 8. Wednesday 2 April

On 2 April we attended the offices of ASCOFAME, and were able to receive information regarding their recent activities, with

presentations from Dr Cesar Rendon, Dr Diego, and Dr Ricardo Escobar. It was extremely useful for us to be given a concept of the work of ASCOFAME, particularly as regards examination structure and the registration of doctors. It appeared that the only reliable data base of doctors, together with their education, qualifications and specialist experience, was held by ASCOFAME, who in turn instructed the Ministry of Health to provide the information. Dr Ospina thanked the British delegation for their work over the past two weeks, and he in turn was thanked by Dr Graham, Professor Firth, and Mr Marston. The mission was concluded by an excellent lunch provided by ASCOFAME

The final day, Thursday, 3 April, consisted in a visit to the **San Carlos Hospital**, a charitable foundation, where we were welcomed by the Director, Mr Charles Weston OBE, an Anglo-Colombian greatly respected in the city because of his charitable work. San Carlos was originally founded by a wealthy Colombian businessman, whose parents had died from tuberculosis, as a tuberculosis hospital, run largely by nuns. In 1947/48, when the menace of tuberculosis had receded, it was turned into a general charitable foundation. The present owners are the Catholic Church, the Society of St. Vincent de Paul, and the Academy of Medicine of Bogotá. They own not only the hospital area but also much of the surrounding land, and some 540 properties in and around Bogotá. The rent from these properties supports the hospital and also pays for 190 pensioners. There have been difficulties due to problems with the trade unions, but in 1997 the original ownership was restored and the hospital has since then been managed by a committee which includes representatives of the Order of St. Vincent de Paul, the unions, the Director Mr Charles Weston, and two others.

The hospital functions as a non-profit making charity There is a consulting room in downtown Bogotá that carries out a preliminary assessment of the patient and decides whether or not they are eligible for admission. The doctors are paid on a fee for item service basis,

and it occasionally occurs that the fees required by an eminent specialist are so high that they cannot be met. All of the non-clinical, including catering, imaging and laboratory services are 'out-sourced'. The hospital bills the Ministry of Health for care of the patients, but the bills are seldom met on time and there is a severe cash flow problem, the present debt approximating to some 30,000M pesos. Students from the National University attend for teaching sessions.

The hospital is in two parts, which appear to function quite separately. On the one hand there is an extremely well equipped modern hospital carrying out tertiary care, including open heart surgery, paediatric intensive care, and an extensive and well equipped renal unit. The other part of the complex is a large (650 beds) public hospital, providing general medicine, which occupies most of the beds, general surgery (27 beds), obstetrics and gynaecology and paediatrics. Most of the general medical problems are of a respiratory nature. There is a large and very active outpatient department, but the hospital does not receive emergencies. All the patients have some degree of insurance. The wards have now been converted from the original Nightingale plan, with a semi-circular solarium at one end, two, three and four-bedded cubicles. At the time of our visit the paediatric area was only half full, and was explained that this was a seasonal variation and that other times in the year occupancy was over-stretched. Perhaps the most surprising feature of the complex was that there seems to be no communication between the two halves. That is to say a patient, who, for instance, develops renal failure following major surgery in the public hospital, is not transferred over to the other area for intensive care.

CONCLUSIONS

General comments

1. The comments that follow refer to the mission visit from 23 March to 3rd April, and may well be modified in the light of the two further visits that are planned. They must therefore be regarded as essentially preliminary, and subject to later amendment.

2. Throughout our mission, we received unfailing support and co-operation from our Colombian hosts, We were made welcome everywhere, and every effort was made to provide us with the necessary information.

3. It is said that that health and education are not high spending priorities with the government. This may be so, but it must be borne in mind that the country is in a state of civil war, and that the economy is shrinking. Unless these grave socio-economic problems can be met, it will be very difficult to reorganize health care and medical education. At the same time, the educational programmes that we saw show a commendable degree of application, and where deficiencies exist these are recognised and every effort is being made to correct them.

4. Over the last decade, the majority of UK medical schools have adopted an integrated systems-based curriculum, as defined earlier in this report. This provides coherence to the course. Only one or two Colombian schools (see above) have embraced this idea although several have expressed their intent to do so. More often than not, basic sciences are taught within the first two to three semesters of the course, during which there is little patient contact and there is adherence to the classical model of basic science teaching. Conversely, in the later clinical stages,

basic science teachers play little or no part in the educational programme.

5. There was general agreement that primary care doctors were urgently needed in Colombia, and that as a result training programmes for them must be put in place. The difficulty here is that public perception of the general practitioner is still low, and that the overwhelming majority of students intend to pursue a hospital-based specialist career in an urban centre. This is understandable in view of the difficult circumstances existing in the deprived and rural areas. It is hardly surprising that a young doctor is reluctant to leave the city for a rural area if faced with the prospect of working in a village without domestic or educational facilities, with no professional infrastructure, and with the ever present danger of violence and even capture. There is a clear need for postgraduate vocational training in General Practice, but this will be a slow evolving process because of the need to recruit trainers and course organisers.

6. All of the schools we visited were fully computerised, and taking advantage of types of learning based on IT. It is nonetheless important to recognise that innovation and computerisation are by no means synonymous. Rather, computers should be considered as tools for innovation, providing learning that complements traditional teaching and encourages self-directed education.

Specific comments

1. There is little standardisation of techniques of clinical teaching, and the extent of patient contact. For example, General Practice and Primary Care teaching is very variable across schools. Are there national recommendations for academic agreements?

2. Requirements for in course assessments are unclear. Does the ASCOFAME curriculum include skills and attitudes training? There seems to be no defined list of core skills nor desirable attitudes (see Tomorrow's Doctors), though many schools undertake this. There are no skills assessments or national directives. Progress records (such as student held logbooks) would be an advantage, as would be student feedback

3. The concept of case-based learning should be considered. This has the advantages of focussing on the clinically relevant areas of the curriculum.

4. There are few examples of. teacher development programmes

5. The value of an examination is greatly enhanced by the use of external examiners. These do seem to have been considered.

6. A GP option should be included in the Intern Year

7. Professional fitness to practice issues should be defined and monitored in the undergraduate course. If fitness to practice issues arise, are there disciplinary procedures in place within medical schools to deal with them?

8. At the end of the intern year, all newly qualified doctors are required to spend a further year in a rural area. We had little information as to the details of this period, or how it is managed. Following this obligatory year of service, the great majority of doctors return to their parent institution for a course in postgraduate studies, with a view to specialisation.

9. Although there is a well-regulated system of registration by the Ministry of Health, assisted by ASCOFAME, whereby each doctor is required to carry a professional card, arrangements for specialist

registration are less certain. That is to say, there are no postgraduate diplomas and recognition as a specialist seems to depend on membership of a voluntary society. There is, however, a disciplinary body, which considers allegations of malpractice, and has the power to remove a doctor's name from the register.

10. We were uncertain as to whether or not there is an obligatory retirement date.

11. Late in this visit that we discovered the existence of some 37 health centres throughout greater Bogotá and there is an indeterminate number of them in the rest of the country. These appear to be staffed by primary care physicians, as well as first and second level specialists including paediatrics, gynaecology, and most especially ophthalmology. (There is no state dental service). The patients apparently present initially to one of these centres, whence they are referred to an appropriate hospital. It was not clear as to which patients were eligible to use these centres, who the medical staff was, and how they were trained. It will be important for subsequent missions to learn more of these facilities.

ACKNOWLEDGMENTS

We wish to thank our Colombian hosts, in particular Dr Carlos Malabet and Dr Diego Rosselli (Past and current Presidents of ASCOFAME) and Dr Julio Ospina (Executive Director) for organising our movements within Colombia, and for their welcome and hospitality. Mr Tom Duggin HM Ambassador to Colombia, gave us much useful advice and support. Our guide and companion throughout was Mr Gary Soper, Commercial Secretary at the Embassy, whose local knowledge was invaluable. The mission was generously funded by Trade Partners UK and we are grateful to them, together with Mr Michael Valdes Scott and the staff at Cannning House for all the preparatory work involved.

ANGLO- COLOMBIAN HEALTHCARE MISSION

REPORT OF THE SECOND VISIT: 23 NOVEMBER TO 3 DECEMBER 2003

BACKGROUND

The origins and aims of the Mission have already been recorded in the report referring to the visit that took place in March/April 2003, and need not be repeated. What follows refers to the second visit of the second part of the exercise. The themes that this mission was requested to address were **the relationship between teaching and service needs,** and **medical research.** It was made clear that by research was meant social, epidemiological and healthcare studies, rather than work based in the laboratory.

The delegation consisted of **Mr. Adrian Marston DM FRCS** (Leader), **Professor Jeremy Dale MD PhD FRCGP**, and **Dr Jagdeesh Singh Dhaliwal MSc MB MRCGP.** Their curricula vitae are summarised in Appendix I. The team left London Heathrow on 23/11/03 and arrived in Medelliín via Caracas and Bogotá.
the following day.

DAY 1 MONDAY, 24/11/03

The initial meeting took place at the Park 10 Hotel, Medellín. Following the National Anthems of Colombia and the United Kingdom, addresses were received from the President of ASCOFAME, Dr **Roberto Estefan Chehab**, the Secretary of the Department of Health, **Dr Gabriel Jaime Alzate** and the British Ambassador, **Mr. Tom Duggin.** To everyone's pleasure, the Grand Cross of ASCOFAME was conferred on the retiring Director, **Dr Julio Enrique Ospina**. Following this, **Mr. Adrian Marston** explained the background to the mission from the British point of view, and Dr Ospina discussed the antecedents.

The newly appointed Director of ASCOFAME, **Dr Ricardo Escobar Gaviria**, then outlined the problems facing Colombian medicine in regard to the interface between service and teaching needs. These included the out-sourcing of clinical teams, resulting in teachers losing responsibility for patient management, the increased number of students, the increasing fragmentation of medicine into small specialties, and the effects of Law 100 on the distribution of medical care. In October 2002 a study of 1500 students and an equivalent number of teachers had revealed an alarmingly low level of practical competencies involving such procedures as electrocardiography, endotracheal intubation, burns treatment and maintenance of fluid balance. Dr Escobar urged the redefinition of the image of the University Hospital as being of pivotal benefit to both academic learning and community needs.

Dr Dhaliwal, following a historical introduction, outlined the present situation in the UK as regards teaching/service needs. Whereas in the past teaching hospitals had mainly acted as tertiary referral centres, involving a certain a degree of elitism this did not necessarily provide the best educational environment for a doctor whose clear pathway was as yet undetermined. The clinical acumen of teachers had never been accurately assessed, and there was little inter-professional communication in teaching activities. The old model of teaching had been essentially passive, with the student receiving instruction from above, but the new model reversed this process, in that the aim was to teach the student how to learn, while providing the essential knowledge and skills which they would require in professional life. Passing examinations should not imply abandonment of the learning process. This development had been stimulated and encouraged by the GMC document 'Tomorrow's Doctors' originally published in 1993, and revised two years ago. Essentially, its recommendations include early patient contact with the student, (bearing in mind questions of ethnicity and communication skills) an increased proportion of practicing doctors interested in teaching, and funding to "teach the

teachers" in structured courses. Such developments encourage students to stay within their University catchment area, thus increasing the level of care in the locality. In 2002 the SIFT (Special Increment For Teaching) grant, which was raised by levy on all Health Authorities, produced £m494.

A further GMC document entitled 'Good Medical Practice', insisted that teaching was a core skill, rather than an add-on, and the same message was emerging from the Royal Colleges. A healthy development was the introduction of appraisal, which is now becoming obligatory for a licence to continue practice. The object of appraisal was to develop, in a one-to-one situation, a personal development plan, identifying areas of strength and weakness, and subject to re-appraisal regularly over a period of three years. Appraisal helps the practice and improves the quality of teaching, encourages good doctors to come in to teach, and may persuade managers to provide funds.

Dr Luis Javier Castro, Dean of the Medical School of the University of Antioquia, went on to discuss research in the Colombian context, with particular reference to the developments in his university in Medellin. Revising their previous dependence on Spanish colonial culture and the French model of medical practice, the University had become seriously involved in research from 1971. Students from the first year onwards were encouraged to take part in research projects, including epidemiology, public health and obstetrics/gynaecology. An example was a project involving research into violence against pregnant women, which had produced impressive results and drawn governmental attention to the problem. It was not easy to persuade Government to provide funds for medical research, which nonetheless in Colombia as in all other countries, was a fundamental component of health care provision. Inter-university co-operation was an important element here, and Antioquia was in contact with Javeriana in setting up joint projects.

Professor Jeremy Dale went on to outline research in primary care in the United Kingdom. Professor Dale comes from Warwick Medical School, which was established three years ago, and receives 170 students each year. They have patient contact early in their course, and this is in the primary care setting.

There are 30,000 General Practitioners in the UK in 10,000 practices (i.e. each practice has on average three doctors). In Professor Dale's practice there are 13,000 patients and 7 GPs. 90% of patient contact in the UK takes place in the GP setting, which is cheap and economical. (NB Continental Europe spends a much larger proportion of GDP on health).

The RCGP was founded in 1952 and its research newsletter began publication one year later. It is now the British Journal of General Practice and is the most frequently cited GP journal across the world. The Medical Research Council began support in 1973 in 900 practices, and in 2001 there were 31 academic departments of general practice with 128 whole time senior clinical staff. 206 students are registered for higher research degrees. Research attracts young doctors to general practice and encourages them to work in less affluent areas. It improves the quality of practice, e.g. in the discriminatory use of antibiotics. Research in primary care in the UK continues to expand, but is limited by the poor career prospects and low salary offered to potential staff, and the increased demand for funding.

Research is conducted in various ways, including RCTs and cohort studies. Areas of particular concern include chronic pain, heart failure, asthma, depression, diabetes, and alcohol and tobacco abuse. Funding originates from the Research and Development Department of the National Health Service and local NHS organisations. Research Councils such as the MRC, Economic RC and Social RC contribute, as do charities, and there is an important input from the pharmaceutical industry.

Under the Chairmanship of Dr Escobar, Executive Director of ASCOFAME contributions were received on the theme of service/ teaching from Deans of the Medical Schools of **Bolivariana, Pereira, Caldas** and **El Bosque**. This was followed by a discussion on research chaired by **Dr Diego Giraldo Samper**, Chief of the Evaluation Department of ASCOFAME with contributions from the Deans of the Universities of **Antioquia, CES, Quindío** and **San Martin**.

Day 2, Tuesday, 25/11/03

The first visit was to the **University of Antioqia** in Medellin. The medical faculty was established in 1871, and in fact antedated the University which was founded in 1900. The University has 25,000 students and is the only public university in Medellin. Some 280 students per year are in the medical faculty. There are 300 whole time and 70 part time teachers, which is insufficient for the needs of the school. Historically, there had been a transfer of medical philosophy from the French to the American system during the 1950s. The medical curriculum had been revised in 1996, and continues to be revised, incorporating the views of the students. There was a tendency towards increased integration of studies as practiced by the majority of medical schools in the United Kingdom.

After a welcome and introduction by the Dean, Dr Castro, we proceeded to the new building incorporating the Faculty of Public Health and the recently established Research Institute. We were shown round by the architect, Dr Molina, who explained that the brick structure had been put up in a deprived area of the city, following slum clearance. The building comprises two towers, each of seven floors, and was to include an administrative area and library, together with 25 research departments, each with its own director, and a total of 800 researchers. The facility (which is at present empty) is due to open in early 2004, with support from the Wellcome Foundation, the NIH in Washington,

and local charities, but with no Government contribution. We were told that the intention was not to bring in research workers from outside, but rather to re-house the 800 workers already established in the University in scattered laboratory facilities, and furthermore that the researchers were to be performance managed, so that those who failed to achieve the required threshold for publication were at risk of losing their position.

We went on to visit the **Hospital San Vicente de Paul,** established some 90 years ago, which contains 500 beds with (we were told) 95% bed occupancy. This is a private non-profit making hospital, and specializes in organ transplantation, with particular emphasis on kidney, liver and heart. There is a large outpatient chronic dialysis facility for those waiting or unsuitable for transplantation. The hospital is a good modern facility though to some extent limited by its traditional French 'pavilion' design, which is difficult to alter, as the hospital is a national monument.

We then visited the Health Centre (IPS) attached to the hospital, which again is a private non-profit making facility. The Institute provides consultations in all major disciplines, as well as dentistry. It is staffed by fully qualified University medical personnel. Some 70% of the patients seen are University staff or dependents, and there are no facilities for non-paying groups such as vinculados. There is an excellent preventive programme run by a senior nurse, with emphasis on child health, drug rehabilitation and geriatric and coronary care.

Our next visit was to the **Universidad Pontificia Bolivariana.** We were welcomed by the Dean **Dr Marta Elena Betancur** and the Director of Studies **Dr Duque**. This University, (which has a relationship with the Catholic Church, its Patron being the Bishop of Medellin), has 1700 students and offers a curriculum which is still largely system-based. The five year course plus one intern year is of 17 semesters, the first five of which are devoted to basic sciences,

though with a few hours of community involvement. Internal medicine is taught from semesters 5 onwards, and surgical disciplines thereafter. The twelfth semester comprises a flexible intern year. In years 1 to 5 the student teacher ratio is 5/1 and in the subsequent years 2/1.

The University Clinic was founded in 1979 as an outpatient clinic and subsequently developed an in-patient facility together with an ITU, renal unit and casualty department. All disciplines are taught except for cardiothoracic surgery, which is dealt with elsewhere. There are four operating theatres conducting some 4,000 operations annually, and the bed occupancy is 85%. There is a day case facility. There is a 12-bedded ITU and a well-stocked renal unit providing haemodialysis and peritoneal dialysis. There is also a neonatal unit. Special clinics exist for pain, addiction, sexually transmitted diseases and respiratory problems.

We had an informal meeting with the students and interestingly, none of the 50 or so present expressed interest in a career in primary care. However, there did appear to be a very friendly, almost affectionate relationship between the students and staff, which was a particularly pleasing feature of this institution.

Attached to. but seemingly independent, of Bolivariana, is a private research unit concerned with tropical diseases and public health, which has an impressive programme concerned with tuberculosis and leprosy.

Day 3 Wednesday 26 11 04

Centro de Estudios de Salud (CES) This centre was founded in 1977 and initially included faculties of Medicine, Dentistry, Veterinary Science and Nursing. Faculties of Law and Psychology were added later on. CES is a private non profit-making institution, which to date has graduated 3 6 27 alumni. The 12-semester course introduces

patient contact at an early stage. CES accepts approximately 100 pregraduate students per annum, and also offers post-graduate courses, of which 24 are in clinical sciences and 19 in public health. We were welcomed by the Dean **Dr J.J. Osorio**, and by the Director of International Affairs, **Dr Cardenas**. The students from CES are educated at a number of centres in the city, including private facilities such as the Clinica Medellin. They have an agreement with other centres in Colombia, in Mexico and in the School of Hygiene and Tropical Medicine at Liverpool, with whom they share an interest in Dengue fever.

The research areas include a very busy bioengineering laboratory, interested in the provision of prostheses. There is a facility for culture of artificial skin in the treatment of burns, and research also includes investigation into drugs for Leishmaniasis, and interest in disaster prevention and management. The Simulation Centre, designed not only for doctors and nurses but also for paramedics, was impressive.

CES includes a facility (still under construction) for veterinary surgery, where veterinary students can treat sick animals, but this also provides an area for surgeons to practice operations upon animals. Although these are conducted under very strict regulations, this is in marked contrast to the UK, where such activities are forbidden by statute.

The **Hospital Manuel Uribe** (Level II) lies in Envigado, a district of some 40,000 inhabitants, which is of historical interest because it was the birthplace and home of Pablo Escobar, one of the most notorious of Colombian drug traffickers. The Hospital staff comprises 50% of general practitioners and 50% recruited from the CES. There are 90 beds. The outpatients are managed under a 'SISBEN' facility, which appears to be a charitable form of an EPS.

In contrast to the Hospital Manuel Uribe, we then visited the **Medellin General Hospital,** (Level III/IV), which is a high-technology

institute. We were struck by the contrast between the teeming streets outside, and the comparative tranquility of the interior of the hospital. It is a public hospital, though with private support, on 12 storeys, with 335 beds, and has a bed occupancy of 95%. It originated as a maternity unit, but now all services are provided. There is an impressive central control centre, which operates all the lifts, fire services, plumbing and security. Unusual among hospitals in Colombia, there is a helicopter facility for the reception of urgent casualties. The ITU is reputed to be the 'best in Colombia', and was certainly an impressive state of the art facility. Additionally, there is a neonatal unit with 24 beds and neonatal ITU of 9 cots. There are 16 operating theatres and we were told that they are principally concerned with trauma.

The delegation was impressed by the high level of treatment provided by the Medellin General Hospital but were concerned at its relevance to the needs of the country as a whole. In particular, there does seem to be a certain proliferation of neonatal units across the city of Medellin.

Day 4 Thursday 27 .11.04

Our next visit was to the **Universidad de Caldas** at Manizales. The philosophy of this Medical School is firmly directed towards the more pressing needs of the region, which include geriatrics, neonatal care, problems with sexually abused children, and plastic surgery.

Research activities are mainly concerned with the early detection of breast and cervical cancer, and with telemedicine. The mammography unit, funded by Japan, aims to screen as many as possible of the local population. Early malignancies are treated by local mastectomy plus or minus radiotherapy, but there is no present attention given to sentinel node biopsy. Almost all of the 26 municipalities in the region are contributing to a programme of colposcopic identification of, cervical cancer involving eight site cone biopsies, and appropriate referral for chemotherapy or surgery. General practitioners skilled in this area

are awarded a diploma. The telemedicine unit is mainly concerned with dermatology – images sent to the dermatologist enable him to suggest correct biopsy sites, and the specimen is then transferred to the pathology laboratory.

Dr Dhaliwal with Dr Escobar also visited the City Hospital

There are 38 health centres in Manizales, which approximates to one for each 50,000 inhabitants. We inspected two of these, which were sharply contrasted. In the first place, we visited the **La Enea** centre, which lies in a part of the town where most of its inhabitants have some sort of employment as (for instance) nurses, factory workers or shop assistants, so that they have access to an EPS, the expenses being shared with their employers. The hospital, directed by **Dr Augusto de la Torre,** has 24 beds at Level I, and is partly staffed by students during their intern year. There are some 50 births each month, with a considerable volume of minor surgery, including cataracts, hernias and dental procedures. Surgeons from the University Hospital attend weekly. There is a very active programme in health promotion, conducted by a senior nurse, which involves childhood obesity, diabetes, hypertension and hyperlipidaemia.

The second health centre we visited in Manizales, was quite different. **Centro La Asuncion** (Level I) is less well-endowed but a very busy facility, with a surrounding population of twice that of La Enea. There is an active outreach programme into the community which achieves a 95% vaccination rate and an 85/90% take up of cervical smears. The hospital receives some 120 patients per day and conducts four deliveries per day. There is 24-hour emergency cover and major cases are referred to the nearby University Hospital. Special clinics include dermatology and psychiatry, and there is a programme of CPD for clinical staff. On leaving the building, we noticed posters announcing an impending party for patients and staff, which seemed to typify the happy relationship with the community

Manizales has a highly developed system of primary care centres, and appears to lead the country in this important area.

Day 5 Friday 28 11 04

Our next visit was to the **Technological University of Pereira (UTP).** Pereira is the capital of the Risaralda region, and together with Manizales and Armenia, constitutes the third important city in the "coffee belt" (*Eje Cafeterio*). There appears to be a considerable fund of goodwill between these centres, and a desire on the part of certain parties to amalgamate the three schools into a single University. However, unsurprisingly, it appears that local loyalties may delay progress to such a desirable outcome. We were welcomed by the Rector **Dr Luis Enrique Arango**, the Dean, Dr **Alvaro Estrada**, and the co-ordinator of surgical services, **Dr Luis Alberto Marin.** This was followed by an extensive review of the history and current activities of the School.

Once again, we were impressed by the innovative development of a curriculum, which is deeply involved in primary care. The students in their first semesters work not only in health centres, but also with displaced persons, and there is, most unusually, an involvement with prisoners. The curriculum was reformed in 1995, with what is termed 'a biosocial focus'. Four semesters are devoted to basic science and in the final semester there is a 25% flexibility, in that students are free to branch into areas only indirectly related to medicine, such as humanities, history and imaging techniques. Our impression of UTP was that this comparatively youthful school is not well endowed, but very progressive, in that it relates molecular biology with community care, an unlikely but nonetheless imaginative combination. Examples of this are studies in the relationship between H pylori and gastric cancer, the impact of genetically modified fruit upon exports, and recreation of genes to increase the muscular volume of farmed fish. Teachers are given

courses in teaching practice. and have the opportunity of acquiring a diploma.

In Pereira, we were able to visit two Centros de Salud. The first one was the **Kennedy Centre**, which deals with the health problems of 80,000 inhabitants in the northeast part of the city. The centre runs a 24-hour service on 25 beds, and includes four dental units. Surgeons from the University Hospital attend regularly, to carry out basic surgery, and there are teams of instrumentalists and nurses. As regards primary care, this is a Level 1 centre of but because of the presence within it, of a sophisticated genetic laboratory directed by Dr Julieta C., . It is classified as Level II. This laboratory provides a supra-regional service involving not only genetic screening but also a facility for determining paternity, which is clearly an important social and legal issue. During our visit we were able to talk to a number of students, who appeared to be interested in the humanistic side of medicine, but on close questioning were still intent on hospital-based specialities, such as immunology, neurosurgery, and cardiology.

One of the problems at the Kennedy Centre is that, although they are obliged to receive cases of major trauma from the surrounding district, there are virtually no facilities for dealing with these complexities, and in particular no available blood bank. This implies that the first critical "golden hour', which is now recognised as the crucial period in saving the life of a severely injured person, will be lost. In practical terms, establishment of an airway, control of haemorrhage, and immediate restoration of circulating fluid, allow time to be gained, until specialised treatment can be instituted. In spite of good intentions seriously injured patients who are brought to the Kennedy Centre, are unlikely to do well.

Our next stop was at the **Hospital Santa Monica** at Dos Quebrados, a facility that serves some 120,000 people, mainly of low-income level, in the surrounding area. This is a Level I/II facility and is very busy;

carrying out some four births a day and has four operating theatres. There is a good programme of prenatal care and vaccination. Fifteen students from UTP attend; The Pereira School encourages inter-faculty working, with centres such as Santa Monica, involving the law, police and social workers. Research is concerned with problems such as child abuse, prostitution, and child nutrition including malnutrition/obesity.

From Pereira we travelled by road to visit the **Universidad del Quindío** at Armenia. Armenia is a city which was devastated by an earthquake in 1999, during which the side of a mountain fell down, there was an inundation of mud, half of the city was destroyed and many thousands of lives were lost. Citizens of Armenia tend to regard events as either pre- or post- this disaster, much as European countries date events in relation to World Wars I and II, and Americans to 9/11. The extent to which the citizens have reconstructed their city compels admiration. Armenia is now reasonably prosperous, lying at the southern end of the coffee producing area, and also attracts tourism because of its beautiful surroundings. It is relatively free of terrorism, runs good public services, and has stable industrial relations.

We were welcomed by the Dean, **Dr Roberto Estefan Chehab**, whom we had previously met in Medellin. a Psychiatrist, and President of ASCOFAME.

The new University comprises 8,500 students, of whom 500 are in the medical faculty. The medical faculty was founded in 1980, and includes 50 teachers. The curriculum was revised in 1996, and is now focused on preventive medicine and primary care. A nursing school is planned, and we had an interesting talk with one of the nursing tutors whom we will refer to Dame Betty Kershaw at the Nursing School Sheffield.

We visited the teaching hospital, the **Hospital de San Juan de Dios,** which is some 100 years old, and comprises 300 beds, with, we are told, 90% bed occupancy. The hospital was slightly decrepit, which was familiar to the delegation, because it was comfortably reminiscent of a British DGH. We were reminded of the earthquake by a crack down the middle of the building. The hospital provides a 24-hour emergency service, receiving some 6,000 patients per month. It carries out 1,000 operations and 150 births per month, the average stay of a patient being four days. There is a 24-hour emergency service, and some 6,000 emergencies are received each month. There are well-staffed and equipped ITU and neo-natal Units. Separate from the main hospital is an Oncology Unit, which is mainly concerned with housing radiotherapy facilities. There is a small private wing, which helps to produce revenue for the institution.

Geographically separate, but administratively attached to the hospital is a most unusual health centre, which was described to us as being "a classroom". This is a combination between a students' recreation area and a local medical clinic. The visitor passes through a complex of indoor sports rooms and canteens, into an outpatient clinic with consulting areas for all major specialties. The service provided by this centre is considerably cheaper than other similar facilities in Armenia, but there is a condition attached to the patient's attendance. This is that he/she must accept the presence of students in the history taking and examination areas. As a rule, this creates no problem, but a patient who does not comply with these requirements would not be eligible for treatment.

The **Manuel Elkin Patarroyo Biomedical Research Centre** (CIBM) directed by Dr **Jhon Carlos Castaño Osorio**, carries a staff of some 15 persons, including doctors nurses and research assistants. It concentrates on the study of infectious diseases such as toxoplasmosis, tuberculosis, Dengue, intestinal parasites and rotavirus infections.

Day 6, Saturday 29 11 04, Free
Day 7 Sunday 30 11 04, Free

Day 8 Monday 1 12 04

On returning to Bogota, our first visit was to the **University of San Martin.** This is a private university founded in 1985 with 5,000 students, 500 in the medical faculty. The students are selected, as in other schools, on the basis of results from the State examination (10 points), a local test of general knowledge (30 points) and an interview (60 points). Its professed aim is to produce general practitioners, through a problem-orientated course, with early community involvement. One of the difficulties at San Martin is the low level of student literacy on admission to the school. A course in speed-reading is provided to enable the intelligent but educationally deprived students to catch up with their forthcoming studies. Students with these problems are identified and counselled early and given good support, with parents being contacted if necessary. We were told that of the first cohort of students only 9 out of 80 actually completed the course. These figures have substantially improved, though there is still a drop-out rate of 35%. However, a number of those students who fall out of the programme return after an interval.

There are 170 teachers, of whom 140 are full time and 29 part time, including 41 in basic sciences, 112 in specialist studies, 10 in social studies and 9 in research. The aim is to encourage a combined educational approach, with (for example) surgeons and radiologists, or physicians and biologists, operating in joint teaching sessions. The teachers are regularly evaluated by means of a 'Teaching the Teachers' programme, though we were uncertain as to the exact method of operation of this system. They have now graduated 232 post-graduates

The theoretical course at San Martin relies on a numerical basis involving "Units of Academic Work" and it was difficult for us to

understand how this has worked out in practice, given the comparatively recent foundation of the school. There is a credit system about to be brought in, involving a concept known as 'UTA' (Unidad de Trabajo Academico). During the course of some 8,000 hours, 2,000 are devoted to basic science, 4,000 to clinical specialties, 1,200 to sociological humanistic areas, and 400 to research. The simulation laboratory is of a high standard.

Students at San Martin are encouraged from the start to function in the community, where they work with veterinarians, nurses, dentists and social workers. though care is taken not to expose the junior students to danger or violence.

Primary care is practiced and studied in impoverished and under-developed areas, including Horizontale, Ciudadela del Sucre, and Toberin, and we were able to visit a health centre in one of these, where we were introduced to the work of **Dr. Guzman**. In this centre, students, with appropriate supervision and accompanying persons, visit the most deprived areas, and make friends with the family. Not surprisingly they may at first be received with a degree of suspicion and resentment, but as soon as the families recognise that these young people are full of good will and idealism, the situation relaxes, and much mutual help is provided. This is clearly very important from the point of view of security, in that the community protects the students. The Toberin area has 100,000 inhabitants, many of whom are displaced persons, so that there is a considerable social turnover. Nonetheless, the student project appeared to be very successful, and in particular we were impressed to discover that when a patient from one of these areas requires consultation at the health centre, the student accompanies the patient and his family at the visit to the doctor, in order to act as an advocate and explain the social background.

The **Clinica Alvear**, which is a private Level 3 facility, was established in 1982 as an eye clinic, and a few years later plastic surgery and

ENT were added. It now provides all major specialist services. The Clinica Alvear is a well-organised and up-to-date facility, catering for the more affluent patients, and is in sharp contrast to the Toberin health centre.

Our next visit was to the **Universidad de Ciencias Aplicadas (UDCA)** which was founded some 14 years ago and has now graduated 2,780 students. The University lies 25 kilometres north of Bogota on a branch road, somewhat difficult to access. We were welcomed by the **Rector,** who is a Professor of Basic Science, and by the Dean, Dr **German Augusto Romario**, together with **Dr Ardiles**, Vice-President in charge of finance. UDCA is a private facility, that is interested in primary care, and encourages students to work with people on low incomes.

Students from UDCA work at the **Hospital San Juan de Dios** in the little town of Zipaquira, north of Bogota, famous to tourists as the site of the salt cathedral (*Catedral de Sal*). The Hospital is a somewhat ramshackle building constructed around an old convent. It is a Level 2 facility, which cares of the needs of 150,000 inhabitants. The 116 beds accommodate surgery, obstetrics and gynaecology, paediatrics, urology and ENT. It is impressive to see what can be achieved by enthusiasm and hard work in somewhat antiquated surroundings, but the spirit of the original religious foundation is clearly there, and the old bell tower at the corner of the building is a reminder of this. The 'vinculados' patients can come for treatment, and pay very little, but are encouraged to belong to a community association, which is the equivalent of an EPS. Students from the 7th and 8th semesters from UDCA attend the hospital.

Day 9 Tuesday 2 12 04

Our final visit was to the **Universidad El Bosque, which** was founded in 1977, where we were welcomed by the Rector, **Dr Miguel**

Otero Cadena, .and the Dean **Dr Hernando Matiz Camacho**. . As recounted to us, the University had an interesting history, in that it represented a breakaway facility from the National University in central Bogotá. It appears that there was at that time a fundamental division of opinion, along political and economic lines, which caused some 25 professors and heads of department from the National University to leave and find a site for a new medical school in the north of the city. . The traditional governing body, the 'Claustro', is composed of the founders from the National University, now somewhat reduced from the original 25, who are replaced as necessary following death or retirement. However, day to day governance is under the control of an Executive Council, which includes student representatives, two of whom we met and talked with.

It was clear from the start that El Bosque is a strong and vigorous school, with an imaginative and far-reaching educational philosophy. The programme is fairly traditional, consisting of the usual twelve semesters. The. initial semesters are devoted to subjects such as psychobiology, information technology and the history of science, with physiology and anatomy coming in at stages 2 and 3. There is however an early introduction to primary care and community activities, before the formal introduction of internal medicine, surgery and obstetrics/gynaecology at semesters 7 to 10 We did not have time to examine the curriculum in detail, but were impressed by the very fine simulation laboratory, under the direction of Dr Matiz. This facility introduces the student to a wide range of practical procedures carried out on plastic models, some of which are interactive, so that, for example, a heart murmur can be reproduced to the class, and appropriate action taken. Among the research facilities we were impressed by the work of the molecular unit, under the direction of **Dr Marta Raquel Fontanilla**, whose work on the relationship between enterococci and vascular endothelium has already achieved international recognition.

Members of the staff of El Bosque are involved in the 'patrulla aerea' (air patrol) which over the last 20 years has operated bi-monthly to provide dental and surgical care to isolated communities, some of them in very dangerous territories.

CONCLUSIONS

The purpose of the first mission was to examine programmes of undergraduate training, with particular reference to the 'core' and 'optional' elements, sometimes described as 'nuclear' and 'flexible'. The declared aim of the second mission was to look at. On the one hand, relations between service and teaching needs in the hospital and the University, and on the other to look at medical research in Colombia. Clearly, these were much less well-defined areas, and correspondingly more difficult to investigate. Out the outset, we did however, make plain that by research we had in mind not so much basic laboratory work involving basic scientific techniques, but rather research in the community, with particular reference to the distribution of health care.

The professed dedication to teaching, as expressed by the clinicians we encountered, was impressive, but it was difficult to see exactly how this worked out in practice. In our country, it is not always easy to persuade capable and high-earning practitioners to involve themselves in teaching activities, which are comparatively under-remunerated. Although the outline programmes as presented to us were impressive, it was difficult to ascertain the precise level of staffing.

Medical research in Colombia is obviously of high order, and particular items that impressed us have been outlined in the preceding report. In particular, the new research institute in University of Antioquia at

Medellin is a very imaginative development, but it is difficult to discern the exact way in which this vast building will be filled and staffed by more than 800 research workers

In contrast to the previous mission, the schools that we visited. expressed a very clear commitment to training in primary care on the part of the teachers and administrators. This however was not echoed by the students, who seemed still to be more attracted to as relatively narrow specialist career. Another difficulty was the resistance on the part of many patients to being seen and examined by student doctors (this is in marked contrast to the UK, where teaching activities, if tactfully organized, are recognized as contributing to overall patient care.)

As in all free societies, distribution of healthcare is unbalanced; Recommendations as to how this unstable situation might be met will be outlined in subsequent reports, following the third visit to the Cali area

We wish to thank our Colombian hosts, in particular Dr Roberto Estefan Chehab, President of ASCOFAME) and Dr Ricardo Escobar Gaviria (Executive Director) together with Dr Julio Ospina, Director of the Mission, for all their help in organising this complex series of visits throughout Colombia. Once again. Mr Tom Duggin HM Ambassador, gave us much useful advice, support and hospitality, and Mr Gary Soper, Commercial Secretary at the Embassy, was our indefatigable guide and mentor. The mission was generously funded by Trade Partners UK and we are grateful to them, together with Mr Michael Valdes Scott and the staff at Canning House for all the preparatory work involved.

ANGLO-COLOMBIAN HEALTH CARE MISSION
REPORT ON THE THIRD VISIT:
22 FEBRUARY TO 3 MARCH 2004

BACKGROUND

The origins and aims of the Mission have already been recorded in two previous reports and need not be repeated. What follows refers to the third visit of the second part of the exercise. The themes that this visit was requested to address were **Post-graduate training, with an emphasis on Primary Care,** and **Revalidation and Reaccreditation of Medical Schools and/ or of Doctors.** The delegation consisted of **Mr. Adrian Marston FRCS** (Leader), **Professor RCN Williamson FRCS** and **Mr. Stephen Brearley FRCS.** Their curricula vitae are summarised in Appendix 1. The team left London Heathrow on 22/2/04 and arrived in Bogotá the same day. Following a tour of the city the following morning, the team transferred to Cali where the Executive Committee of ASCOFAME had been meeting that day.

DAY 3 - TUESDAY, 24/2/04

In the absence of the President of ASCOFAME, **Dr Roberto Estefan Chehab**, the session was opened by the Vice-president, **Dr Luis Camacho**, followed by welcome addresses from the Deans of the University del Valle and the University Libre, **Dr Jaime Roa** and Dr **Enrique Alvarez**. **Dr Julio Ospina,** Director of the Mission, then explained the background and antecedents to the exercise, and Mr. Adrian Marston introduced the British Delegation. **Dr Ricardo Escobar Gaviria**, Executive Director of ASCOFAME presented the role of ASCOFAME in the exercise, including the process of accreditation.

Dr Diego Giraldo Samper, Director of Evaluation at ASCOFAME, explained the background of the accreditation process, including the role of the National Council of Accreditation (CNA). ASCOFAME had adopted an accreditation process in 1962, and the State had taken this over in 1980, according to Law 80 of the Ministry of Health. From 1985 to 1992 the financial support had been obtained from the Kellogg Foundation, and a general guide for 53 schools of medicine, dentistry and nursing had been set out, in which all participated. In 1992 Law 30 proposed accreditation of faculties of medicine, and this was taken up in 1996 by the CNA. Additional funds had been obtained from the International Reserve Bank in order to strengthen the process. Schools were inspected on behalf of CNA by groups of academic peers, but as the CNA's remit was very wide (they are responsible for regulation of all University courses, not only in medicine) they could not be familiar with experts in every field, and in practice they usually accepted nominations by ASCOFAME. So far twelve faculties had been accredited by CNA in this way.

Dr Giraldo's talk was followed by a presentation by Mr. Stephen Brearley, who described the role of the General Medical Council, which had been set up by Act of Parliament in 1858. In 2003 the 104 members of the Council had been drastically reduced to 35 members, including 19 doctors elected by the profession, one representative of the Royal Colleges, one representative of the Deans of Medical Schools, and 14 (40%) non-medical individuals appointed by the Government. A small medical majority was thereby maintained. The principal responsibility of the Council was the maintenance of the Medical Register. Although UK law did not restrict the practice of medicine to registered doctors, only those whose names were on the Register could undertake certain responsibilities, most notable of which was employment in the NHS. There were originally five types of registration, and these were shortly to be reduced to four, by elimination of the category of "limited registration". Removal of names from the Register is the task of a Fitness to Practice Committee, which

distinguishes between doctors who are guilty of serious misconduct, those who are seriously impaired due to ill health and those who while not actually guilty of misconduct and are not ill, are still performing inadequately. The sanctions available to the Committee vary from simple warning to erasure of the doctor's name from the Register. The other responsibility of the Council is the maintenance of standards in medical education, and the coordination of all of its stages, which is supervised by the Education Committee. The Education Committee has the power to inspect courses and examinations, and to withdraw recognition for those falling below standard, although this has not up to the present been necessary. As regards revalidation, all doctors are now required to undergo a quinquennial review, in order to maintain their licence to practice. The review process is complex, but has been strengthened by the introduction of annual appraisal which is now obligatory for doctors working within the NHS, and the introduction of Clinical Governance, which has helped to bring to light adverse events.

Dra Jacqueline Molina de Uriza, described the efforts that had been made on the part of ASCOFAME to include primary care training in the curricula of more medical schools. This effort had been sustained for 15 years, but as yet there were comparatively few primary care programmes in the undergraduate curricula, and only four schools had adopted primary care training as an established post-graduate course. The reasons for this were the understandable reluctance of established clinicians to accept the validity of primary care/family medicine as an additional discipline, and lack of funding to establish the required courses. Suggestions were put forward regarding the strengthening of departments of primary care, including programmes for certification and revalidation for family doctors, provision of bursaries to encourage and enable post-graduate students to pursue such courses, distance learning at night and weekends, and the establishment of an official certificate of training.

Professor Williamson discussed the provision of post-graduate training in the United Kingdom. He defined the various training grades (Pre-Registration House Officer, Senior House Officer, Specialist Registrar Consultant) and the parallel career ladder within the University system. These grades were about to be simplified by the Chief Medical Officer, into two foundation years and four to seven specialist years which would involve a 'seamless' progression. The role of the District General Hospital, the Royal Colleges, the Universities and the Post-graduate Deans was discussed in detail. The structure of parts I and II of the MRCP and FRCS examinations were described, and an outline given of the structure in training of family medicine. This involved two years in hospital, training in specialties relevant to primary care (e.g. psychiatry, dermatology, obstetrics/gynaecology) and extensive training in the community as a GP Registrar. The MRCGP examination, though not mandatory, was being taken by an increasing number of postgraduates.

The afternoon session consisted in presentations from the first faculties to be accredited, **(CES, Antióquia and UIS)**. This was followed by presentation of the first methods of introduction of family medicine into the Colombian health care system, which was presented by representatives of the Schools of **del Valle, Cauca, Norte and del Bosque**. In the evening we were most kindly entertained at the home of **Dr Liliana Arias Castillo**, Head of family Medicine at Universidad del Valle and herself a practicing family doctor.

DAY 4 - WEDNESDAY 25/2/04

The morning was occupied by a visit to the medical faculty of **University del Valle.** The University has two sites in Cáli, as well as elsewhere in the city. There are 2,180 students, 590 in medicine, and 187 teachers, 74 of whom are honorary. There are faculties of medicine, dentistry, public health, rehabilitation and basic science. Up

to the present the school has qualified some 3,000 undergraduates and 1,500 postgraduates. In 2002 there were 360 applications, of which 90 were successful, and in 2003 613, with 91 being accepted. There is an integrated curriculum extending over twelve semesters, which aims to produce a doctor with relevance to the needs of the community . Community involvement is introduced at semester VI, and family medicine at semester XI. However, it appears that there is some first year family doctor training and introduction to community practice in the second year, including such procedures as blood pressure measurement, Year 3 studies the family doctor as a manager, year 4 geriatrics, and in year 5 there is some work with the family doctors. There are programmes in medicine and surgery, dentistry, public health, rehabilitation and basic science. Basic sciences and social sciences are located at the San Fernando site, and clinical sciences in the University Hospital (Hospital Evaristo Garcia). which has 770 beds and is 20 years old. Here the students receive considerable experience in trauma, as well as in the usual range of medical and surgical specialties.

Apart from the University Hospital (Level 3) there are two other Level 3 hospitals (the psychiatric hospital San Isidro and the Rafael Uribe Clinic, as well as a range of Level 1 health centres.. Notable among these is the 'La Selva' centre, which we visited. The centre is staffed by family medicine specialists. Del Valle is one of only four centres throughout Colombia that teach family medicine as a discipline. Specialists at La Selva work closely with the University, and the centre is supported by Social Security. The facility is purely outpatient, and is staffed during the mornings by visiting specialists, and during the afternoon by residents under supervision. The centre receives some 250 patients per day, and undertakes domiciliary visits. We were able to hear from Dr A Bromet, a pioneer in family medicine training in Cáli, the Head Nurse, Manager, students, interns and residents, all of whom were articulate and enthusiastic about the work of the centre.

Del Valle has two institutes undertaking research (immunology and health and violence) and a number of independent groups with their projects. There is particular interest in tropical diseases such as malaria, toxoplasmosis, and oncocerciasis, maternity and infant mortality, clinical epidemiology, neurosciences and nutritional studies. In 2003/4 the university achieved first place for individual students, and the students are trained in 'self care'.

The second visit was to the **Universidad Libre,** where we were welcomed by the Director **Dr Jaime Gutierrez,** and the Dean **Dr Jorge Enrique Alvarez.** University Libre comprises seven sites: two in Bogotá and one each in Bucumaranga, (which was visited previously) Pereira, Cartagena, Cucuita and Cáli. The University was founded 80 years ago and the Cáli site 30 years ago. The medical faculty has 1139 students, 654 of whom are female. The course consists of 13 semesters, with an accent on 'relevance, auto-regulation and flexibility'. The emphasis is on transverse mutuality, and each semester lasts for 18 weeks. A credit system is in operation, one credit being equivalent to 48 hours training. 20 sites are used including hospitals, health centres and institutions, by agreement with the social security system. Semesters I to III comprise basic science and some community activities, Semester IV includes domiciliary visits, and clinical work starts in earnest in Semester V. Community involvement includes working in the districts of Yumbo and Barrio Lleras (Hospital Buena Espiranza). Students work in close contact with health administrators and community leaders.

We visited the administration block, which contains the faculties of law, accountancy and medicine. We witnessed some impressive teaching in the anatomy department involving imaging projection of the skull base, and were informed that the students dissect the whole body, and themselves prepare injected specimens. The students are assessed by regular testing, which includes review of case notes, fieldwork, paper examination and research presentation. There are 266 teachers, 68 of

whom are part-time, these are paid at an hourly rate and the part-time teachers are expected to contribute a minimum of eleven hours, full-timers fifteen hours. There is a shortage of full-time teachers and more are required. There is an excellent library and IT centre, with 200 PCs available to the students. These are used regularly for communication between the students and their professors and teachers.

We returned to Bogotá that evening.

Day 5 - Thursday 26/2/04

This day was to be devoted to the visit to Universidad de Surcolombia at Neiva, but the trip was cancelled due to local political disturbances, and the time was spent in an intense and useful discussion with ASCOFAME, clarifying the position involving registration, examination and licensure of doctors. These deliberations will be discussed in full in the final report.

Day 6 - Friday 27/2/04

We transferred early in the morning to Popayán, a historic cultural city and the site of the **Universidad del Cauca.** The City was founded in 1537, and the University in 1828. A devastating earthquake in 1993 destroyed half of the city, but there has been a very successful restoration exercise, with international support, and the beauty of the place has been largely rendered intact. In fact, the University now owns some 50% of the city area, and is by far the largest employer in the neighbourhood. There are 11,000 students in nine faculties, including the Faculty of Health Sciences, which comprises departments of Medicine, Nursing, Phonoaudiology and Physiotherapy. The medical school employs 234 teachers, 67 of whom are part-time, and 49 work on an hourly basis. At the school we were welcomed by the Rector, **Dr Daniel Vivas** the Dean, Dr **Maria Restrepo de Paz**, and the Secretary General **Dr Alberto Duque.**

The course is arranged over 13 semesters, and is of a fairly conventional design. Semesters I to III include anatomy, physiology and genetics, IV - VI comprise medicine, surgery and pathology, and family medicine is introduced in semester VI, comprising three stages each lasting three months.. During this time the student is asked to select a family containing a pupil at a local school, such as the Colegio San Camilo, situated within the city limits. Some 40 families are involved in this scheme. By agreement with the family the student then makes regular visits, always in the presence of an adult member, who is asked to sign up the attendance. The social aspects of the family's life are studied, as well as the purely medical problems. The student then reports back to his/her teachers, giving an account of what has been achieved. Semesters VII to IX are devoted to psychology and medical and surgical specialties, X – XI to paediatrics and obstetrics/gynaecology, and XI XII to a revision of internal medicine and surgery, obstetrics, paediatrics, The final (intern) year includes two months involvement in family medicine, including work at the **Alfonso Lopez** health centre (see below) and other Level 1 centres in and around Popayan, such as those at Piendamo, Morales, El Bordo and Guapi.

We then visited the Centro de Salud Alfonso Lopez, directed by **Dr Beatriz Eugenia Bastidas**, a specialist in family medicine and epidemiology, who was trained at University del Valle. We had an extensive presentation of the work of the Centre from the Director, together with a teacher, an intern, a social worker, a student, and an expert in learning disability.. The centre is a purely outpatient facility and has no X-ray department or dispensary, although minor surgery is carried out. It receives some 40 patients a day. Most are supported by an EPS, but those who lack such support are nonetheless attended to, and pay very little. Students in the later semesters and intern year attend the Alfonso Lopez and several other centres, and see families from the Instituto Inca, grades 6 –8. Postgraduate training in family medicine is planned to begin shortly in Popoyan,

After lunch we returned to the historic and impressive Aula Maxima of the University, where communications were received from Dr Ospina, Mr. Marston, Professor Williamson and Mr. Brearley. The evening was given over to entertainment, but useful discussions were raised over the dinner table, and a number of unresolved problems related to medical education in Cauca, and in particular in Popayán were raised. The next morning was devoted to a cultural tour of the City, and in particular to the Casa de Cultura and to the Arts Centre, where a member of staff from Alvaro Lopez instructs families from the neighbouring districts in handicrafts, which they then sell at a modest profit. Surely this exchange of ideas between the indigent population and the educated classes, taken together with the student activities in the Popayan area, represents a step (albeit very small) in the right direction towards solving the cultural and social problems of Colombia

We returned to Bogotá the next morning and on arrival at the airport were driven .to the resort of Paipa, in Boyacá province.

Days 7 & 8 - Saturday, Sunday 28-29/2/04

These were "free days" and enabled us to visit the historic sites of the battle of Boyacá and the village of Villa de Leyva, but the time was not entirely wasted in that the delegation had the opportunity to reflect on the past few days' experiences and to compare notes and consolidate their ideas.

Day 9 - Monday 1/3/04

We arrived at 8.00am at the Fundacion Universitaria de Boyacá in Tunja where we were greeted by the Rector, **Dr Osman Correal Gabral,** and the Dean **Dr Manuel Bustamante**. The Foundation is 25 years old. The facility comprises 4,000 students, 70% of whom are from the Boyacá region. This private medical school which was founded ten years ago, has 480 students, the acceptance rate being

80/90 per year. The customary introductory talks were given by Dr Ospina and Mr Marston. We then received presentations from experts in the areas of public health, obstetrics and gynaecology, physiotherapy, instrumentation technology, bacteriology, rehabilitation, respiratory therapy and basic science.

The course is organised over twelve semesters, along fairly conventional lines, the first four semesters being devoted to basic sciences. Patient contact is introduced at the first semester, with legal medicine, occupational and public health coming in at the tenth. There appears to be no formal programme involving family medicine.

Interestingly, in conversation with the Rector, we learned that the curriculum was originally developed from that at the University del Bosque, but that there had been to an extent a deliberate return to a more conventional model.

We saw an extremely impressive state-of-the-art lecture theatre, holding an audience of 500, and connected to a multi-media library ('Polyteca') on three floors, and an extensive IT department serving the whole University. The includes a facility for monitoring lectures and classes, and an extensive collection of videos. We attended a students' lecture at which there were some 150 students, and this was followed by presentations by Professor Williamson and Mr. Brearley. There was considerable student participation, and a session of lively questions and comments.

Attached to the University is a newly established Clinic building, funded by local enterprise, which is nearing completion and due to open in November 2004. The Clinic aims to provide a complete consultation facility involving all main specialties, together with an A & E Department. The number of beds (45) backing up this facility seemed to us to be rather small, but we were assured that an extension was planned for the near future.

Our next visit was to the **Universidad Tecnológica y Pedagógica de Colombia (UTPC),** also in Tunja. This is a public university with around 20,000 students. In the unavoidable absence of the Rector and Vice-rector we were welcomed by the Dean, **Dr Antonio Tamara Lopez**. Although an ancient foundation, the University in its present form is around 50 years old, the medical school was founded in 1986. The modern buildings of the university are situated on a previous Muisca burial ground, from which archaeological finds are frequently recovered. Interestingly, there seems to be no ethical problem involving these relics, as is the case with human remains preserved in the United Kingdom (as for example in the museums of the RCS). There are 420 students per annum in the medical school, and 80 teachers, 64 of whom are full-time. The course lasts over 13 semesters, involving 41 assignments, and accumulates a total of 240 credits. Clinical teaching is carried out in the local hospitals varying from level 3 to 1, principally in the university hospital San Rafael.

The medical school is situated in an old and now disused hospital, San Juan, and presentations were made by Dr Ospina, Mr. Marston, Professor Williamson and Mr. Brearley. There was a lively audience with major student participation, and a number of questions were asked.

The Mission transferred to Bogotá in the evening.

Day 10 - Tuesday 2/3/04

The intention on this day was to travel to the University of Tolima at Ibague but this was not possible, due to bad weather conditions. Instead, a useful debriefing meeting was held at the British Embassy.

At the last minute, the Dean of the University of Tolima Medical School, **Dr Francia Elena Betancourt**, together with her Director of Studies, very kindly flew to meet us at the Bogotá airport to explain

the curriculum. Tolima is a public university with some 20,000 students ,of whom some 15000 are extramural and 5,000 resident on campus. . Some 3% of the university budget goes to the medical school, which was founded 18 years ago with the active assistance and participation of ASCOFAME. There are 400 medical students, most of whom are from the local region. Difficulty is experienced in recruiting teachers, only 10% of whom are full-time, though it was explained that there is a very full and dedication commitment to the instruction programme. The course is of a conventional nature and extends over 13 semesters, including a strong component of community involvement. This takes place in the Centro de Salud la Gaviota, during semesters V. VII and IX, and there are 17 other health centres around the town which can be utilised. A level 3 public hospital, Frederico Hierres, is used for clinical teaching as are other hospitals around the region.

A particular and perhaps unique feature of the Ibague school is evaluation of the students, who are regularly assessed throughout the course. There is a local examination supplementing the State test, and the students who do not pass this do not receive the Diploma of Doctor and Surgeon. They are recommended to undergo remedial teaching.

The Directive Council and Curriculum Committee have student representatives. From 611 applications in 2003, 45 candidates were accepted. Inspection by CNA is expected in March 2005. 47 doctors have so far been trained at Ibague, each semester producing 14. There is an integrated curriculum of simultaneous training in basic science, clinical science and community problems. The community problems are related to local disease patterns, and emphasis placed on preventable disease in families, in accordance with WHO recommendations. Patient contact starts at semester V as does contact with the community, and these are carried on through the intern year. The interns are responsible for recording case notes and represent the first stage of patient contact.

ACKNOWLEDGMENTS

We wish to thank our Colombian hosts, in particular Dr Luis Camacho Marquez, Vice President of ASCOFAME (in the unavoidable absence of the President, Dr Roberto Estefan Chehab)) and Dr Ricardo Escobar Gaviria (Executive Director) together with Dr Julio Ospina, Director of the Mission, for all their help in organising this highly successful expedition. Regrettably, we were unable to visit the Universities of Surcolombia and Tolima, but we received details of their curricula, and it is to be hoped that more information will become available before the next Congress. Once again, Mr Gary Soper, Commercial Secretary at the Embassy, was our guide and mentor, and Sra Clara Bermudez accompanied us on all visits and provided invaluable support. . The mission was generously funded by Trade Partners UK and we are grateful to them, together with Mr Michael Valdes Scott and the staff at Canning House for the preparatory work involved.

CONCLUSIONS

Once again, we wish to place on record our appreciation of the care taken by the various Schools visited, to prepare for our arrival, and to ensure that we were given every possible facility to inform ourselves of the philosophy of the institution and of the work carried out. All of our questions and comments were received with great interest and frankness

As previously stated the overwhelming need for Colombian healthcare is the establishment and provision of an efficient system of primary care. It is clear from our discussions that this view is shared by ASCOFAME and by the great majority of the medical schools we saw, which emphasise the importance of this aspect of training in the

construction of their curricula. Much credit is due to the pioneering efforts of the newly established teaching departments of family medicine. However it does seem that these endeavours have not, as yet, made much impact on the students or young doctors, most of whom. for understandable reasons, still opt for a career in a hospital-based speciality.

Previous reports have included recommendations for future policy. This report does not carry specific recommendations, in view of the forthcoming conference to be held in Bogotá in July 2004, at which detailed suggestions will be presented, arising from the experience of all four stages of the Mission.

April 2004

CENTRES VISITED

Universidad de Antióquia
Universidad Pontificia Bolivariana
Universidad El Bosque
Fundación Universitaria de Boyacá
Universidad Autónoma de Bucamaranga, UNAB
Universidad de Caldas
Universidad de Cartagena
Universidad del Cauca
Instituto de Ciencias de la Salud, CES
Universidad de Ciencias Ambientales y Aplicadas, UDCA
Universidad Javeriana
Universidad Libre (Barranquilla)
Universidad Libre (Cáli)
Universidad Metropolitana
Universidad Militar de Nueva Granada
Universidad del Norte
Universidad Tecnológica de Pereira
Universidad de Rosario
Universidad del Quindío
Universidad de La Sabana
Universidad de San Martín
Universidad Industrial de Santander
Universidad Tecnológica y Pedagógica de Tunja
Universidad del Valle

Intended visits but reviewed by verbal and written report

Universidad de Surcolombia
Universidad de Tolima

CURRICULA VITAE

Stephen Brearley MChir FRCS is Consultant General and Vascular Surgeon to Whipps Cross University Hospital in London and Honorary Senior Lecturer in Surgery to St Bartholomew's and the Royal London Hospital Medical School. He was educated at Liverpool, Cambridge and The Middlesex Hospital, and continued his surgical training in Birmingham and London. He has had considerable involvement in European medical politics and was a UK representative on the Conférence Internationale des Ordres, which unites the medical regulatory bodies across the European Union. He is an elected member of the newly constituted GMC, where he chairs the Registration Committee. Published work includes articles on gastrointestinal and vascular surgery, medical education and workforce planning.

Jeremy Dale MD PhD FRCGP trained at Cambridge University and The Middlesex Hospital Medical School. He served as Lecturer and Senior Lecturer (Associate Professor) in Primary Care at King College School of Medicine, London, and was appointed to his present position as Professor of Primary Care at the University of Warwick. His research includes studies related to the interface between emergency care and primary care in accident departments and ambulance service settings. He has been Vice Dean of the Warwick Medical School and Head of Division of Health in the Community.

He is also active as a part time GP in Coventry. Published work includes over 100 articles in medical and nursing journals.

Jagdeesh Singh Dhaliwal MSc MB MRCGP trained at the University of Leicester Medical School. Following extensive experience in General Practice, he obtained the degree of MSc in Health Care Management awarded with distinction in 1992. He is now Visiting Lecturer in Healthcare Management at the University of Warwick, Course Director and Postgraduate GP Tutor. He is a member of the performance reference group for local GP's and Deanery Appraisal Facilitator for the English Midlands. His present activities combine service in the community with academic and educational responsibilities in the University

Anthony Firth is a PhD from Cambridge University. His research background is in developmental cell biology on which he has published widely. His present position is Professor of Anatomy at Imperial College London, where he is responsible for anatomical teaching throughout the curriculum, including study of the living patient and of modern methods of medical imaging.

Professor Firth was responsible for devising the new curriculum at ICL from 1998 – 2000. He is in charge of years 1 and 2 of the course, and chairs the committee that organises this.

Helen Graham FRCGP is a graduate of Manchester University and undertook residencies in Australia and the USA. She is an active partner in a busy South London General practice. Her University activities include the Directorship of Quality and deputy Chair of the Medical Education Committee of the GKT School of Medicine of King's College London. the main management driver of the Medical

School. One of her responsibilities in this role has been to prepare for and represent the Medical School for the Quality Assurance Agency institutional audit of Kings College. Other responsibilities in this role involve chairing the Programme & Course review programme for the Medical School and deputizing for the three Deans across a range of College, Medical School and national issues. She still cares for the sick and needy in South London, and continues teaching both at undergraduate level as well as Trainer in General Practice for the London Deanery.

Julio Enrique Ospina Lugo MD, Colombian, qualified MD from the University of Rio de Janeiro, and interned in pathology at the hospital Santa Clara de la Misericordia. He was subsequently resident and post-doctoral fellow in pathology at Roswell Park Memorial Hospital, Buffalo, NY. In Colombia he has been pathologist to the National University, Bogotá, and Chief of Electron Microscopy and Experimental Biology at the National Cancer Institute, of which he was later the Director. He managed and directed the National Cancer Plan. and held senior posts at the National University, the University del Bosque and the University de la Sabana. Internationally, he was adviser in cancer to the World Health Organisation, Geneva, and Chair of the Committee of International Activities at the Union Internationale Contre le Cancer (UICC). His name is inscribed in the Roll of Honour of UICC. From 1992-2003 he was Executive Director of the Colombian Association of Medical Faculties (ASCOFAME).

Dr Ospina has published numerous articles in national and international journals, on electron microscopy. tumour virology. medical management, scientific education and the history and philosophy of medicine. In his capacity as director of ASCOFAME he has been responsible for organizing many national and international conferences. He is a Fellow of he Royal Society of Medicine of London and is currently Director of the British Colombian Healthcare Mission

Adrian Marston DM FRCS trained at Oxford University, St Thomas' Hospital London and at Harvard Medical School, USA. His subsequent career was as Consultant Surgeon and Director of the Vascular Surgical unit at The Middlesex Hospital in London, where he developed a clinical and research interest in disorders of the splanchnic circulation and mesenteric arterial disease. From 1970 to 1985 he was Consultant Surgeon to the Royal Northern Hospital. He is the author of five surgical textbooks and some 120 papers in scientific journals. His biography "Hamilton Bailey: A Surgeon's Life" was published in 1997. He has been a Visiting Professor of Surgery in several European and African countries, and in the USA at Johns Hopkins Hospital, the Mayo Clinic, and the Cleveland Clinic, Ohio. He has visited Colombia on several occasions, and is an Honorary Member of the Colombian Society of Gastroenterology. A number of Colombian surgeons have spent part of their training period on his service in London. Mr Marston was Vice President of the Royal College of Surgeons in 1992/3. Before that he was President of the Association of Surgeons of Great Britain and Ireland, and of the Vascular Surgical Society. He is a member of the French and Spanish Associations of Surgeons and represented the United Kingdom on the European Union of Medical Specialists. Following his retirement from the National Health Service, Mr Marston spent four years as Honorary Dean of the Royal Society of Medicine, and was elected Vice President in 1998. The French Government appointed him as Chevalier de l'Ordre du Mérite in 1999.

Robin Williamson MD MChir FRCS was appointed as Professor of Surgery at the University of Bristol in 1979 and in 1987 moved to London to become Professor and Director of Surgery at the Royal Postgraduate Medical School and the Hammersmith Hospital. He is a former Editor of the British Journal of Surgery and President of the Association of Surgeons of Great Britain and Ireland and the International HepatoPancreatoBiliary Association. He remains in

active surgical practice as Consultant Surgeon to the Hammersmith Hospital and Professor of Surgery at Imperial College, London. His specialist interest lies in pancreatic surgery. He is also Dean of the Royal Society of Medicine, UK- He served for four years on the Cell Biology and Disorders Board of the Medical Research Council UK and is currently Chairman of the Scientific Advisory Committee of the Mason Medical Research Foundation, a charity that offers small grants for running expenses in research projects.

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7. Useful websites

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10. Association of Medical Research Charities UK www.amrc.org.uk.

11. Flexible learning :www. qu. edu. aulgwislqihelflex/flex. home. htmi

12. Colciencias (www.colciencias.gov.co).

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