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Appendix 2: Case studies

The heads of the ten departments of medical education were approached and asked to submit a case study under the following headings:

1. When and why was the department set up?
2. What are the functions of the department? Is the department involved in teaching, research and service provision to your institution? Where does the balance lie between these activities?
3. What is the scope of the department's activities? Is the department mainly involved with the medical profession or do you also work with other professions? If so which other professions? Do you have links with other institutions nationally/internationally? Do you mainly work in undergraduate/basic education? Are you also involved with postgraduate and continuing education? Are there areas within medical education in which you have a specific interest?
4. Organisational structure: Where is the department situated within the institution; i.e. to whom does the head of department report? What is the structure within the department? Is the department divided into sections? Is there a deputy director?
5. Staffing: What staff does the department have? Do you have affiliated staff or other arrangements by which individuals carry out work for the department?

Either the head of department or a nominated representative(s) responded from nine of the ten departments approached. Contributors to the case studies were: Zubair Amin (Medical Education Unit, National University of Singapore), Matthew Gwee (Medical Education Unit, National University of Singapore), Brian Hodges (The University of Toronto, Faculty of Medicine Donald R. Wilson Centre for Research in Education at the University Health Network, Canada), Lalitha Mendis (Postgraduate Institute of Medicine, University of Colombo, Sri Lanka), Geoff Norman (Programme for Educational Research and Development, Faculty of Health Sciences, McMaster University, Canada), Rohini Seneviratne (Staff Development Centre, University of Colombo, Sri Lanka), Trudie E Roberts (Medical Education Unit, University of Leeds Medical School, UK), Ara Tekian (Department of Medical Education, University of Illinois at Chicago, USA) and Cees van der Vleuten (Department of Educational Development and Research, Universiteit Maastricht, Netherlands).

The case studies provide powerful examples of different organisational structures, interests and functions that will be of major interest to those wishing to set up a department of medical education.

AMEE Education Guide no 28, containing the full text of the paper and the two appendices including the case studies, is available from the AMEE Office (www.amee.org)

Case study 1: Programme for Educational Research and Development (PERD), Faculty of Health Sciences, McMaster University, Canada

1 When and why was the department set up?

The Program for Educational Development (now, Program for Educational Research and Development) was set up in September 1970, one year after the first class entered the Faculty of Health Sciences. Clearly, one goal was program evaluation of the first PBL school. But more likely, the goal was more general, along the lines of "We have a new school which is explicitly interested in educational reform. So we should have a resource available of people who are interested in educational research". The founders were clearly influenced by the Office of Medical Education at Michigan State University and the Center for Educational Development at the University of Illinois, which were in their heyday. The first chair was Vic Neufeld, who had just completed a M.Sc. at the Michigan State University.

2 What are the functions of the department?

It is primarily research and development. We have few accountabilities, as a program, for any ongoing educational activities such as test development or curriculum development. We may engage in these activities as change agents and the understanding is that once the mechanisms are in place, they will be taken over by the educational program.

Is the department involved in teaching, research and service provision to your institution?

Heavily in research. Probably more than 90% of the funding is directed at research. We have about 10 active research grants (with three full-time faculty) every year. We also are explicitly involved in faculty development in research, and provide a significant amount of support (both expertise and financial assistance) to help faculty do research. In this role, it is an explicit goal to develop individuals who are active in educational research, as well as leaders who understand and appreciate educational research.

We also see our role as to help faculty access the literature in educational decision-making, and maintain archives of seminal articles. We hold academic rounds and seminars. We are also used individually as a resource by programs. The teaching we do is in the area of research methods, and we teach courses in the graduate program in methodology as well as undergraduate psychology and health sciences. We do not teach or tutor in the professional programs, except as relates to research methods

Where does the balance lie between these activities?

Probably 50% research, 25% service (at the level of individual consultation with faculty around research projects) and 25% teaching.

3 What is the scope of the department's activities?

We are a Faculty of Health Sciences. Hence we are a resource to all programs. However, most effort is in the undergraduate medical program. There are some individual efforts in residency programs (radiology, anaesthesiology, psychiatry),

some in rehabilitation sciences and very little in nursing and postgraduate medical sciences.

Do you have links with other institutions nationally / internationally?

No formal inter-institutional links, but there are many informal, and individual links with organisations such as Association of American Medical Colleges (AAMC), American Educational Research Association (AERA), Association for Medical Education in Europe (AMEE), Canadian Association for Medical Education (CAME), Medical Council of Canada, National Board of Medical Examiners and other centres such as Toronto and Michigan.

Do you mainly work in undergraduate / basic education? Are you also involved with postgraduate and continuing education?

Mostly undergraduate.

Are there areas within medical education in which you have a specific interest?

Definitely:

- Cognitive psychology of learning.
- Development of expertise in clinical reasoning.
- Student assessment.
- Role of experience in expertise.
- Medical admissions.

4 Organisational structure

It is structured as an educational program, not a department. Hence it reports to the associate dean (academic), like all other educational programs. Individual faculty who are primarily in the PERD have faculty appointments in other departments (primarily clinical epidemiology and biostatistics). As well, there are a number of part time members with primary in clinical departments.

5 Staffing

PERD consists of three full-time faculty, 3-4 research associates, a half-time administrator, a half-time secretary, two graduate students (in psychology/epidemiology), and a large and uncounted number of part-time members. These are not affiliated staff, but rather interested faculty, many of whom get M.Sc. degrees in education.

Case study 2: The Medical Education Unit-University of Leeds Medical School

1 When and why was the department set up?

The Medical Education Unit in Leeds originally began with the appointment of individuals with specific educational roles in curriculum facilitation, clinical skills, special study modules and community based teaching. These appointments were in response to the General Medical Council's (1993) recommendations in 'Tomorrows Doctors'. Initially this group named as the Medical Education Unit reported to the head of undergraduate medical course. In 1997 the post of director of the Medical Education Unit (MEU) was externally advertised and appointed.

What are the functions of the department?

The function of the MEU currently can be divided under the following headings:

- **Healthcare educational think tank and expert resource**

The MEU provides expert resource particularly in the areas of curriculum development and assessment.

- **Curriculum Delivery / Course Management.**

At present the MEU is responsible for the organisation and delivery of the communications and basic clinical skills elements of the undergraduate course through the clinical skills unit, the senior lecturer and the senior teaching fellow in communication skills.

Until recently the organisation of the student selected components (SSC) of the course was also delivered via the MEU. The policy of the MEU is to develop and support new elements of the course and when these have been established then to hand on the continued running of that area to the Learning and Teaching division of the School of Medicine. Consequently when SSCs were established and embedded throughout the whole five years and the major development work over then this responsibility was passed on. The academic input to the SSC strand still resides in the MEU with one senior member having responsibility for it. This plan of developing new areas and then passing on the running of them is central to the ethos of continued innovative development of the MEU and it is planned in time for the same policy to apply to communication skills and clinical skills.

Most academic and academic-related members of the MEU are involved in teaching on the MBChB course, usually as small group facilitators or personal tutors.

- **Research into medical education**

One of the major parts of the MEU's role is to undertake high quality healthcare related education research. The MEU has two research fellows, who undertake work under the guidance of the director of the MEU. Senior members of the MEU supervise a number of students registered for higher degrees (MSc and PhD). We have set up the Centre for Research in Professional Education, which runs a series of seminars addressing issues in professional education and staff development.

- **Staff development**

The MEU provides educational training courses, primarily for NHS practitioners, designed to enhance the quality of teaching, learning and assessment across the School of Medicine.

- **Managing medical student clinical placements**

Management of the contracts for the main clinical placements also come under the aegis of the MEU. The Clinical Placements Contracts Manager and the Quality Evaluation Officer monitor the clinical placements for the 2nd -5th years and provide a major contribution to the Quality Management and Evaluation (QM&E) process for work based learning.

The MEU in Leeds continues to develop with the emphasis being much more on healthcare educational research and the expert resource rather than mainly curriculum delivery and organisation.

Where does the balance lie between these activities?

Currently the balance between these activities is, in the order of priority:

- Curriculum delivery/course management,
- Research,
- QM&E work,
- Advisory role,
- Staff development.

The balance we are aiming for is:

- Research and Advisory role to have equal priority,
- Staff development,
- Curriculum development,
- QM&E work.

3 What is the scope of the department's activities?

Most of the work we currently do is with the undergraduate MBChB course. We have collaborative links with other areas of healthcare education, such as nursing and pharmacy. We have also developed research links with sociology, gender studies and the School of Education at the University of Leeds.

Do you have links with other institutions nationally / internationally?

The links we have with other institutions come through external examining and collaborative research projects. We have links in the UK with Barts and the London, Cambridge, Manchester, Newcastle and Leicester medical schools. Through these collaborations we have been successful in obtaining grants for research and development work. We are also part of a small network of medical schools that regularly organise mini lecture tours for international experts.

Are there areas within medical education in which you have a specific interest?

The major areas of interest particularly research interest are: assessment, the development of transferable skills, inter-professional education, the development of competence and expertise and disability and admission to medical school.

Do you mainly work in undergraduate / basic education? Are you also involved with postgraduate and continuing education?

We work mainly in undergraduate medical education but the plan is for us to expand our remit; we are expecting to provide educational resources for the School of Medicine taught postgraduate courses and to forge collaborations with the Postgraduate Deanery.

4 Organisational structure

The School of Medicine is in the middle of a major restructuring process. The MEU currently is part of the Academic Unit of Learning and Teaching. Under the new arrangements it is envisaged that the MEU will become the major contributor to the Healthcare Education Research, Development and Strategy Unit in the new Faculty of Medicine and Health. Currently the director of the MEU reports to the director of learning and teaching in the medical school.

5 Staffing

There are currently 23 members of staff in the MEU. A number of individuals have a part time commitment to the MEU. The project workers are affiliated to the MEU. The organisational structure of the MEU is shown in the figure 1.

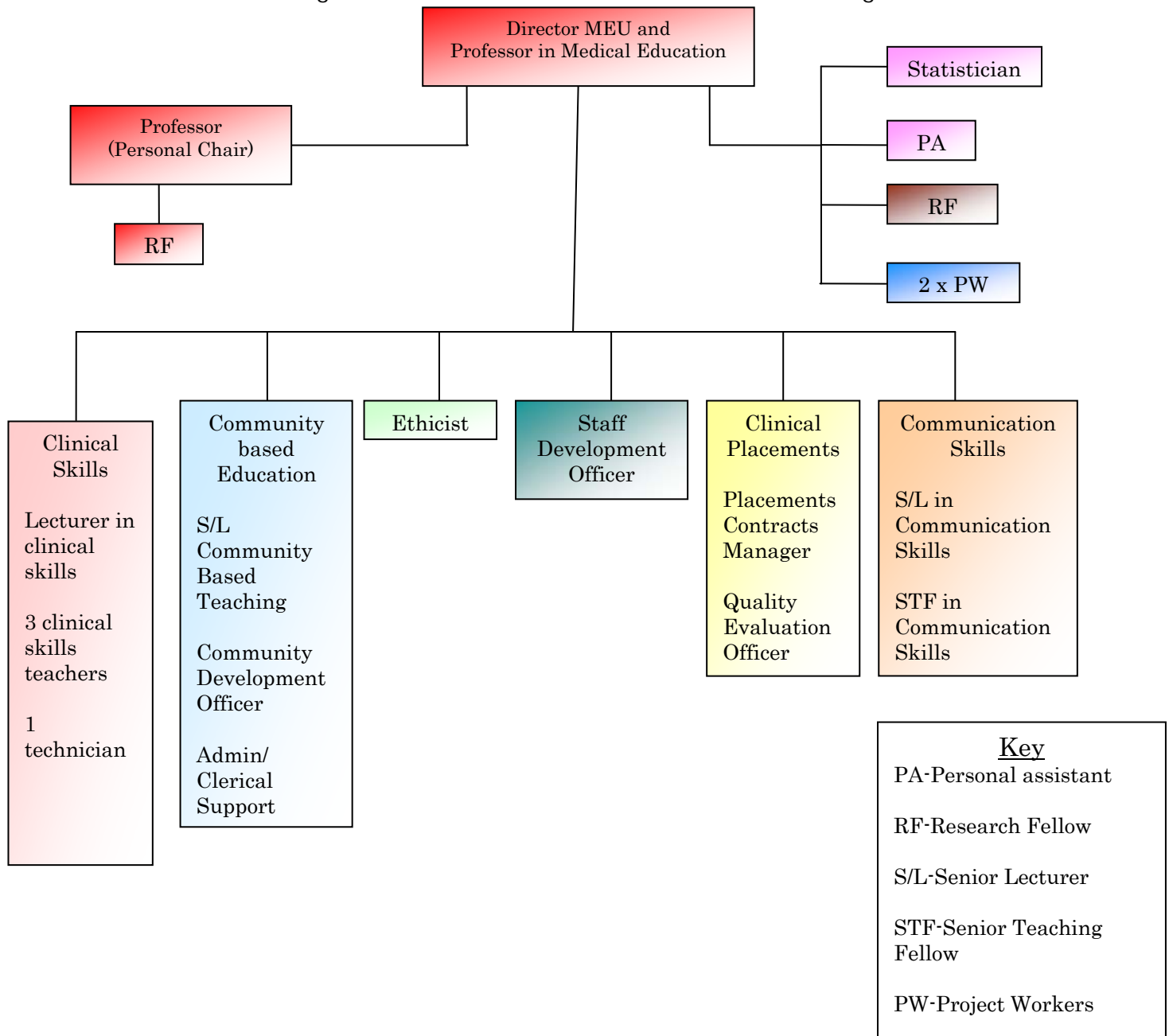


Figure 1: The organisational structure-Medical Education Unit-Leeds.

Case study 3: The University of Toronto, Faculty of Medicine Donald R. Wilson Centre for Research in Education at the University Health network

1 When and why was the department set up?

The Centre for Research in Education (now known as The Wilson Centre after celebrated surgical educator, Dr. Donald R. Wilson) was established formally in 1997 by Dr. Richard Reznick. It is an evolution of two previous centres, the Centre for Studies in Medical Education and, prior to that, the Division for Studies in Medical Education.

2 What are the functions of the department?

The vision of the Wilson Centre is "Advancing healthcare education and practice through research". Thus the Wilson Centre is conceptualized, not as a department, but as a research unit. The Wilson Centre focuses on research endeavours related to education, and on the development of faculty, fellows, residents and students in this academic domain. Although the Wilson Centre is primarily dedicated to research and capacity building in this area, related educational services are provided to the university, the hospitals and various national organizations by members of the Wilson Centre, who are consultants to many local, national and international education committees and task forces.

Faculty development in teaching scholarship is undertaken by a partner unit called the Centre for Faculty Development which is located at St. Michael's Hospital, another fully affiliated teaching hospital of the University of Toronto. The Wilson Centre and the Centre for Faculty Development work together very closely and the respective directors are members of each other's executive committees. Further, there is a formal mechanism to ensure integrated programming so that new discoveries in healthcare education research can be integrated directly into faculty development programs. Participants in these programs can then, in turn, identify needs and opportunities for education research. This reciprocal cycle of information between the two centres ensures the translation and application of new knowledge and the relevance of new research.

3 What is the scope of departments' activities?

Our mission statement reads: the Wilson Centre will;

- Foster the discovery and application of new knowledge relevant to advancing healthcare education and practice
- Promote creative synergies between diverse theoretical perspectives, and between theory and practice
- Be a world leader in education research.

While primarily sponsored by the Faculty of Medicine, the Wilson Centre is multi professional in its mandate and multidisciplinary in its outlook. Its researchers and trainees are very broadly representative, not only of the clinical departments in the Faculty of Medicine, but also of other clinical faculties and departments such as nursing, dentistry, pharmacy, social work, physical therapy and nutrition services. Among the eight full time PhD researchers, there is great disciplinary diversity. Their backgrounds in doctoral studies include linguistics, psychology, sociology, kinesiology, and measurement.

Do you have links with other institutions nationally/internationally?

The Wilson Centre has formal links with the Ontario Institute for Studies in Education and the Institute for Medical Sciences, both at the University of Toronto. Through these institutions every trainee spending two years as a fellow in the Wilson Centre completes a graduate degree. Most complete a Masters degree, although many are now pursuing doctoral level training. Over 175 members of our faculty have undertaken a Masters degree in Education. In addition to the formal links described, the unit is developing links with several other departments such as kinesiology, psychology, sociology, English and engineering, and graduate students are increasingly completing their degrees in these affiliated departments. The Wilson Centre has strong ties with the Association of Canadian Medical Colleges (ACMC), the Association of American Medical Colleges (AAMC), the Société Internationale Francophone d'Éducation Médicale (SIFEM), The Royal College of Physicians and Surgeons of Canada (RCPSC), the Medical Council of Canada (MCC), and many specialty organizations such as the Association of Surgical Educators (ASE) and the Association for Academic Psychiatry (AAP).

Do you mainly work in undergraduate / basic education? Are you also involved with postgraduate and continuing education?

The research focus of members of the centre and the fellows includes a continuum from undergraduate, postgraduate and continuing education. We are currently creating an academic plan which will identify priority areas; however, we have significant strengths in the areas of technical skills, simulation and assessment, communication skills simulation and assessment, interprofessional skills including team work communications, factors affecting diagnostic decision making, the psychometrics of performance-based assessment and the sociology of health professional education research. Wilson Centre scientists and clinician researchers publish over 100 peer reviewed articles annually and give 300-400 scientific presentations and lectures internationally.

4 Organisational structure

The Wilson Centre is located within the Toronto General Hospital of the University Health Network, one of the university affiliated teaching hospitals in the City. There are links to all departments and the health professional faculties. The director of the Wilson Centre, Dr. Brian Hodges, reports jointly to the vice-president of education of the hospital and to the associate dean of education of the Faculty of Medicine. Dr. Glenn Regehr is the associate director.

Base funding is supported by three sources: approximately 1/3 by the Faculty of Medicine Dean's office budget, 1/3 by the University Health Network budget and 1/3 various clinical departments and units who jointly fund researcher salaries. A growing source of additional income has been the securing of competitive salary support grants for researchers and, more recently endowed funds in the form of research chairs. The centre currently has two recently endowed research chairs (2 million dollar each) and last year attracted over 5 million dollars of additional research funding.

5 Staffing

The Wilson Centre has five administrative staff positions in the areas of general administration, information technology, and audiovisual, and research support. There are eight full-time PhD trained Wilson Centre scientists, several part-time researchers and over a dozen very active clinician researchers. There is also a much larger group of over 100 affiliate members within the various health science faculties. The Wilson Centre attracts fellows who come to spend two years undertaking graduate work in research and there are currently 15 fellows. As

well, the Wilson Centre hosts visiting professors from different countries of the world including Australia, France, UK, Korea and Switzerland. The Wilson Centre also housed the very large University of Toronto Standardized Patient Program which provides support for teaching, assessment and research for the University of Toronto and many national education organizations.

Case Study 4: The Medical Education Unit-National University of Singapore

1 When and why was the department set up?

The Medical Education Unit (MEU) of the National University of Singapore (NUS) was established in January 2002 with the broad mission of 'promoting professionalism and excellence in medical education.' Our faculty recognised the need to review and monitor the progress of the many reforms in our undergraduate medical curriculum implemented about five years ago and considered it necessary to form a support group of individuals with the appropriate expertise, experience and commitment to undertake this task and to take responsibility for the professional and personal development of our medical teachers.

2 What are the functions of the department?

MEU has three main functions: a) faculty development, b) curriculum development, and c) research in medical education. Currently our main focus is on faculty development as this is the area of greatest need. The faculty is now undertaking another major curriculum reform aimed at broad-based curricular integration, centralized student assessment and realignment of content. MEU will be playing an active role in the planning and design of the new curriculum.

Is the department involved in teaching, research and service provision to your institution?

MEU also conducts medical education research. Recently, we undertook a major project called 'Profiles of Asian Medical Schools' and completed the first part by compiling profiles of medical schools in Southeast Asia. The DREEM (Dundee Ready Educational Environmental Measure) survey was also recently completed to measure the educational environment at the medical school. Several MEU members have also been invited to speak at local and regional educational/medical education conferences and presented abstracts at various conferences. Recently, MEU organised and hosted the 1st Asia Pacific Medical Education Conference (APMEC) which was a great success.

Members of MEU are actively involved in scholarly publications. Drs Zubair Amin and Khoo Hoon Eng recently published a book, 'Basics in Medical Education', as a core text for teaching faculty in medicine (Amin and Khoo, 2003). The book has been 'highly recommended' and would serve as 'excellent text for faculty development' (Solomon, 2003). Dr Matthew Gwee contributed a chapter on 'Problem Based Learning in Medical Education: Curriculum Reform and Alignment of Expected Outcomes' in the recently published (2004) book, 'Enhancing Thinking Through Problem-Based Learning Approaches: International Perspectives' (2004).

The majority of participants in our faculty development programmes are clinicians, many of whom hold senior positions. Recently, we initiated an intensive three-day faculty development program 'Seminars in Medical Education' starting with the core module which received excellent feedback from participants. MEU also conducts educational development workshops for other local institutions (e.g. schools, polytechnics) and organisations (e.g. some military units).

Do you have links with other institutions nationally / internationally?

We also collaborate with other institutions at the regional and international levels, with extended networking with institutions around the world, including: a visiting professorship in medical education and providing on-going consultancy to faculty development programs at the University of Airlangga, Indonesia. Plans are being finalised to launch the Harvard-NUS Physician Educator Program as part of our intensive faculty development program.

3 What is the scope of the department's activities?

Our work commitments are presently focused mainly on undergraduate medical education. However, our major interests are presently in curriculum, faculty development and student assessment.

Our near and intermediate term goals are to form a critical mass of trained medical educators in our faculty who can further spread the educational gospel and serve as important change agents in their respective disciplines. We have several workshops and seminars planned for this year to cater for our faculty's needs, culminating with our hosting of the 2nd Asia Pacific Medical Education Conference in early December 2004. Our long-term aim is to develop the capability to establish and implement academic programmes leading to the award of a Diploma and a Masters degree in health personnel education and to intensify our research capability in medical education.

4 Organisational structure

The MEU is a Unit within the Faculty of Medicine. The head of the unit reports to the vice-dean of education. Our MEU is presently headed by an interim director with three other members appointed by the dean. There are no divisions within the MEU. There is a position of deputy director who can be appointed up to professorial level.

5 Staffing

The academic staff in MEU are all part-time appointees with primary commitments in the departments of biochemistry (1), paediatrics (1) and pharmacology (2). There are two full time staff providing administrative support. Presently we do not have any arrangement for affiliated staff.

Case study 5: The Dundee Centre for Medical Education

1 When and why was the department set up?

The Dundee Centre for Medical Education began in 1973 when Ronald Harden, its founder, was attracted to Dundee to provide educational support for the undergraduate medical curriculum and to set up a national resource in medical education.

2 What are the functions of the department?

The Dundee Centre is involved in research and development, teaching and service provision. Its research and development activities have resulted in innovations in the area of assessment (the OSCE and portfolio assessment as medical students' final examination); curriculum development (the SPICES model of educational strategies, identification of 12 exit learning outcomes for health professions' education, 10 questions that can be used as a tool for curriculum planning and evaluation, task-based learning, a PBL approach linking theory and practice for use in the clinical context, and the DREEM, a tool for measuring the educational environment); and teaching and learning (the FAIR criteria for effective learning.)

Its teaching activities include its award-bearing programme of courses, and its face-to-face short courses. The award-bearing programme of courses currently has over 900 participants studying for qualifications at postgraduate certificate, diploma and Masters level, mainly by distance learning. The programme has over 700 graduates with approximately 200 at Masters level. The centre also has a small number of doctors on its PhD programme each year. Since their inception in the 1970s, the annual face-to-face short courses have been attended by over 2000 health care professionals. Our service provision activities are widespread involving the University of Dundee and other institutions in the UK and overseas.

Is the department involved in teaching, research and service provision to your institution?

Yes. We run courses for the undergraduate curriculum in the SSC (student selected component) programme. Many of our research projects have been in the context of the Dundee undergraduate medical programme. We also provide staff development for teaching for the undergraduate medical and dental schools and educational support for the undergraduate medical education committee for all aspects of its activities.

Where does the balance lie between these activities?

The split is approximately equal but varies at any given time; e.g., during curriculum revision and implementation of a new curriculum at Dundee medical school, staff involvement is high.

3 What is the scope of the department's activities?

Our major involvement is with the medical profession. We have other health professions on our teaching programme (nurses, pharmacists, dentists, allied health professionals and increasingly veterinary medicine practitioners), and have produced distance learning packages for various health professions.

Do you have links with other institutions nationally / internationally?

Some of our research projects are collaborative with other UK medical schools and postgraduate institutions. We provide staff development for teaching for a number of UK and overseas medical schools. We have collaborative agreement with a number of UK Royal Colleges to provide staff development in teaching and learning for these members and fellows. We also provide educational support in the area of assessment for other Royal Colleges. We have contributed to the development of ASME (Association of the Study of Medical Education) and AMEE, the Association for Medical Education in Europe. The centre also advises a range of medical schools on aspects of educational development, ranging from developing aspects of the course and to the design of the whole curriculum. Members of centre staff have worked with the GMC, the Police Force for England and Wales, National Testing Agencies and the Postgraduate Medical Education and Training Board.

Do you mainly work in undergraduate / basic education? Are you also involved with postgraduate and continuing education?

Much of our curriculum development work has been in undergraduate medical education. Our assessment work has been both undergraduate and postgraduate. We are major providers of postgraduate courses in medical education with participants in 67 countries throughout the world. Our distance learning, updating packages for which we are widely known in the UK are in the area of continuing education / continuing professional development.

Are there areas within medical education in which you have a specific interest?

Yes. In staff development, curriculum design and development, student assessment and educational environment.

4 Organisational structure

The Centre for Medical Education is a department of the medical school and is situated within the division of medical education one of the seven divisions of the school. The head of department reports to the head of the division of medical education who reports to the dean of the medical school.

The administrative structure of the department follows our activities in that there is an administrator for the teaching programme and a departmental administrator who has supports the centre's research activities. Secretarial support for our work with Dundee's undergraduate curriculum is provided via the centralised curriculum office and medical school office. The academic staff contribute across the centre's activities to teaching, research and service provision. There is no deputy director.

5 Staffing

One director (medical), one senior lecturer (non-medical), one lecturer (medical), a part-time project development officer (non-medical) and a research officer. We also have a senior clinical academic from another department attached to us one day per week. There are two administrators, two secretaries, a desk top publisher, a technician and a part time library secretary.

Do you have affiliated staff or other arrangements by which individuals carry out work for the department?

Yes. A small number of medical school staff, who have studied with us or worked for the centre in the past, are now in senior positions in the medical school. They undertake research and development work with us and teach on our face-to-face teaching programme. Senior doctors, with whom we have worked frequently, carry out overseas work on behalf of the centre.

A small but important number of overseas academics undertake sabbatical studies in Dundee. Some of these individuals have made significant contributions to our publications, face-to-face teaching programme and medical school support activities. We collaborate with a number of overseas medical schools and medical education departments.

Case Study 7: Department of Medical Education at the University of Illinois at Chicago

1 When and why was the department set up?

Since its inception in 1959, the Department of Medical Education (DME), previously known as the Center for Educational Development (CED), has played a major role in educating scholars from all over the world. Initially, DME was established to reform the curriculum at the College of Medicine, University of Illinois at Chicago (UIC). One of the goals was to develop a comprehensive student assessment system college-wide. This was done through the leadership and vision of George Miller and Christine McGuire.

2 What are the functions of the department?

In addition to its role in the direct training of educational leaders, DME has also, from the beginning, been a leader in consultation services to other international medical education units. The early focus in international training was on instructional methods and assessment. Later, during the 1970s, international training interests expanded into curriculum planning, program evaluation, and development of a broad spectrum of innovations in health professions' education. Faculty development became an important new focus during this time as well. By the department's 25th anniversary, strong partnerships had been forged with the colleges of medicine, dentistry, pharmacy, nursing, allied health, and public health, thus allowing interdepartmental research and training across the health professions. Also in the 1970s and 80s, educational research developed as a strong discipline, which served to both promote further development of health professions' education and validate education as a science among clinicians.

3 What is the scope of departments' activities?

The mission of DME is to provide leadership in teaching, scholarship, and development and evaluation of educational programs in support of the mission of UIC College of Medicine and in association with health professions-related academic units at UIC (DME, 2003). DME's goals are:

- To advance understanding of education in the health professions through the generation and dissemination of new knowledge locally, nationally, and internationally.
- To develop, implement, and evaluate academically rigorous educational methods and programs that span the continuum of medical education, including programs for medical students, residents, practising physicians, and academic faculty.
- To prepare health professionals for leadership roles in education.
- To extend expertise in health professions' education research, training, and program development and evaluation worldwide.

Do you mainly work in undergraduate / basic education? Are you also involved with postgraduate and continuing education?

At the graduate level, the department offers the Master of Health Professions Education (MHPE) degree in both a traditional face-to-face format as well as through the Internet. More than 25 different courses are offered each academic year, and the number of students in 2004 was 90, from 18 countries. Enrollment of students is evenly divided between face-to-face and online. The MHPE website, at www.mhpe-online.org, is a valuable source of information about the MHPE program for candidates, students, and others interested in the program. In

the International Programs area, the department offers short-term fellowship (1 – 6 months). Participants choose an area of concentration from a large menu of courses and work under the supervision of faculty in their area of interest. DME has signed a memorandum of agreement with over a dozen institutions, and continues to offer diverse consultation services, ranging from advisory activities for not yet formed medical education units, training workshops for faculties undergoing curricular change, faculty development for unit revitalization, and institutional/ organizational diagnosis and treatment planning. These consultation activities enrich both consultant and client, and it is hoped that this work has impact beyond the mutual borders of each client/ consultant team. In the international programs area, DME has offered the MHPE program onsite in China, Egypt, and in Brazil.

DME presents numerous CME-certified programs for medical practitioners, which include DME Seminar series and other programs. DME sponsors and presents an online core curriculum of 13 short courses for medical and dental residents designed to prepare them for the Accreditation Council for Graduate Medical Education (ACGME) General Competencies. DME also sponsors workshop series on various aspects of teaching and learning, as well as the Faculty Development Fellowship, a one-year program for 8–10 UIC faculty who participate in workshops as well as an independent project. Faculty represent several colleges from the UIC Health Campus including pharmacy, dentistry, applied health sciences, and the college of medicine (York, 2004)

At the undergraduate level, DME presents Essentials of Clinical Medicine, a two-year course sequence for all pre-clinical medical students. The course prepares them for generalist clinical roles through introduction to patient communication skills, history and physical, and the healthcare system. DME also presents numerous senior electives in clinical and research ethics, history of medicine, literature and medicine, medical practice in the 21st century, obesity in culture, and teaching skills. Additional information about DME and its activities could be found at <http://www.uic-dme.org>.

Do you have links with other institutions nationally/internationally?

DME has been at the forefront of health professions education, research, and development and has achieved a worldwide reputation of leadership through its scholarship, educational programs, and consultation with health professions and health professions' organizations and associations locally, nationally, and internationally. The World Health Organization has designated DME as a collaborating center for education and health manpower development (DME, 2002)

4 Organisational structure

The head of the department is also the senior associate dean for undergraduate medical education who reports directly to the dean. Administratively, DME has directors for the following areas: Graduate studies, international programs, medical humanities, faculty development, and research. These five directors report to the department head. In addition, the department oversees three other major areas: testing services, clinical performance centre, and distance education.

5 Staffing

DME is the oldest and largest freestanding department devoted to medical education in the world, with 15 full-time tenured and tenure-track faculty

members, four non-tenured faculty members, 32 adjunct faculty members, and 15 staff members.

Case study 8: The Medical Education Development and Research Center (MEDARC), Faculty of Medicine, University of Colombo, Sri Lanka

1 When and why was the department set up?

The Medical Education and Research Center (MEDARC) of the Faculty of Medicine, University of Colombo was set up in 1998 after the faculty changed in 1995, to a new curriculum with a different educational philosophy.

The new curriculum

The existing curriculum was a traditional discipline based one. The new curriculum was a hybrid curriculum based on the SPICES model. It was organised into five streams: the basic sciences, applied sciences, clinical sciences, community, and behavioral sciences. Teaching in the basic sciences stream began from the first term and retained a didactic teaching style that students had been accustomed to at school. Behavioural and community stream curriculum which began in the second term included small group teaching, seminars, group work, debates and presentations, posters and problem based learning. Students were thus gradually initiated into the skills of self learning.

Infrastructure

MEDARC was one of several infrastructural units that were set up to support the new curriculum: others being, stream offices, a computerized examination unit, a clinical skills laboratory, a computer assistant learning laboratory with internet access, and an audio–visual unit.

2 What are the functions of the department?

MEDARC is perceived as the heart of the faculty and the guardian of standards and quality. It is expected to be a watchdog of the process and the product of the curriculum and a think tank.

MEDARC functions in an advisory capacity to all committees that plan curriculum. It is expected to conduct periodic reviews to see if expected outcomes of the curriculum are being realised and to examine if assessments are appropriate.

Ad hoc changes to the teaching programme or assessments are avoided when various issues are raised by students or staff. Instead such changes are made on the basis of an investigation by MEDARC. MEDARC academics are expected to keep abreast of global changes in educational theory and keep the faculty informed. Also to carry out teacher training in modern teaching/learning strategies

MEDARC staff are expected to keep their ears to the ground and pulse student perceptions of the curriculum. Also to provide guidance for students to adjust to the learning styles encouraged by the new curriculum.

Widening the critical mass of 'experts' in medical education is another function of MEDARC by involving as many academics as possible as MEDARC resource persons and in the process developing their expertise. Expertise in medical education should never be privy to a medical education unit.

MEDARC with others in the faculty English Language Teaching Group and the department of English is expected to organise an intensive course in English for new entrants.

MEDARC academics participate in the teaching programme. This helps them to detect specific needs and problem areas at first hand, also to participate in time tabling and sequencing of applied sciences modules and basic sciences programmes. Participation encouraged a realistic approach.

A certain sensitivity and flexibility is expected of MEDARC and an adjustment to an ever changing role. The exact balance between teaching research and service would depend on the role expected of MEDARC at any point in time.

3 What is the scope of departments' activities?

Most universities in Sri Lanka are in the process of modernising their study programmes. MEDARC has the capability to make a contribution to this effort. It can contribute much to postgraduate medical education in Sri Lanka.

Regional and international links will have to be forged and with these MEDARC can contribute to the South Asia region which still lacks the critical mass of experts in medical education.

The specific interests developed by MEDARC should be guided by country and regional needs more than on individual interests.

4 Organisational structure

MEDARC was set up as a unit under the dean's Office. The director MEDARC is answerable to the dean. This gave it a status and strength that it would not have had if it operated as a separate unit or department. As the unit develops and those in training return it should be possible to appoint a full time director and with time if necessary a deputy director.

5 Staffing

Initially three lecturers were recruited to MEDARC. In addition many temporary demonstrators have served MEDARC over short periods of time. A promotional scheme for lecturers in medical education was developed and approval obtained from the University Grants Commission.

General Comments

The critical mass of persons trained in Medical Education is still not available in the South Asia region. MEDARC has much to contribute as a driver of change in Sri Lanka and the region

Case study 9: The Department of Educational Development and Research, Universiteit Maastricht

1 When and why was the department set up?

The Department of Educational Development and Research was one of the first departments of the University of Maastricht. It was established in 1977, immediately following the founding of the university and of the Maastricht Medical School in 1976. Problem-based learning was used as the instructional method for the medical school and all other faculties of the university. The Department's mission is to support educational development and offer educational training programs to a number of faculties within the university and to conduct educational research. In order to facilitate this wide mission, department staff have appointments within the various faculties and many have their background in the disciplines related to those faculties. We will limit our case study to the activities for the medical school and the Faculty of Health Sciences.

2 What are the functions of the department?

Educational development is a major component of the departmental activities. Innovations that have resulted from these activities include teaching approaches, such as the PBL approach itself (tutorial approaches, PBL in the clinical context), learning in skills laboratories, new approaches to assessment (including progress testing, computer-based clinical reasoning assessment, assessment of professional behaviour and portfolio) and a quality assurance system (instruments to monitor and improve the quality of PBL and clinical teaching).

Another part of the department's mission is the development and delivery of educational training programmes. Two programmes are offered: a distance-based Masters degree in health professions' education (based in the Faculty of Health Sciences) (www.mhpe.unimaas.nl) and a full-time face-to-face programme in educational sciences (based in the Faculty of Psychology). Several national and international courses on educational innovation are also offered, such as the face-to-face Annual Summercourse in PBL (www.summercoursepbl.org). In addition, PhD theses are supervised by staff members of the department (www.educ.unimaas.nl/phdprograms.html). The department is currently expanding its course programme by a number of short specialised courses.

The developmental and training activities are accompanied by numerous research projects in different areas, such as the role and functioning of the tutor, the relative contribution to learning productivity by different elements of a PBL and/or clinical learning environment, the developmental process of (clinical) expertise from novice to expert, an educational design-based approach to assessment, and outcome research on PBL and skills teaching programmes. An overview of publications, relevant documents and audiovisual productions is presented on the department's website: www.educ.unimaas.nl.

Is the department involved in teaching, research and service provision to your institution?

Yes. Department members fulfil regular teaching roles within the programme of the medical school and the Faculty of Health Sciences. An important activity is the introductory courses on PBL for university teachers. Members of the department have various managerial functions and sit on educational and examination committees. Educational development support is provided by the following task forces:

- Staff training

- Programme evaluation
- Student assessment
- ICT and learning resources
- Student advisors.

Where does the balance lie between these activities?

About 50% of the activities are related to educational development and support and the rest is about evenly spread across research and teaching. Educational research often involves collaboration and participation from other departments. It is general departmental policy to stimulate strong involvement of staff from the professional domain in educational research projects. In addition to contributing to best evidence in medical education, the purpose of educational research is staff development and professionalisation (Van der Vleuten *et al.*, in press).

3 What is the scope of the department's activities?

Our major involvement is with the medical and health sciences professions. We also have a separate unit within the department that provides dedicated services to the Faculty of Economics and Business Administration. Another unit is the Centre for Active Learning, which covers the external (inter)national market for educational services and research. It is predominantly active in educational training programmes for secondary and higher education.

Do you have links with other institutions nationally / internationally?

The research programme and the departmental researchers involved in it are part of a nationally accredited "research school" (Interuniversity Center for Educational Research). Some of our research projects are collaborative projects with national and international researchers. We provide staff development courses on teaching within the framework of a national programme on medical education. Several staff members have professional affiliations with medical schools around the world and other professional organizations, including the General Medical Council and colleges involved in specialty training.

Do you mainly work in undergraduate / basic education? Are you also involved with postgraduate and continuing education?

The prime focus of the department's educational development activities is undergraduate medical and health sciences education. Some development and research projects are concerned with postgraduate specialty training in medicine and Continuous Professional Development (Continuing Medical Education). Our teaching activities in health professions' education are at postgraduate level. About a thousand participants from all parts of the world have attended our Summer course and about one hundred of them have gone on to do the Master's programme.

Are there areas within medical education in which you have a specific interest?

The areas of special interest are: student assessment, staff development, and curriculum development.

4 Organisational structure

The Department of Educational Development and Research is a department within the medical school, but it provides support and services to multiple faculties. Each

faculty-related domain is the responsibility of one chair person, who reports to the (education) dean of that faculty, in some faculties intermediated by an Institute (division) of education. The organisational structure of the medical school and the Faculty of Health Sciences can be characterised as a matrix organization, with programmes on one axis and departments on the other. Within the Department of Educational Development and Research, educational development, research and teaching are separate programmes with their own programme directors. The programme directors may actually have appointments in other departments. The matrix organisation thus ensures interdisciplinary collaboration.

5 Staffing

The department is chaired by a professor. The scientific staff consists of four associate professors, a varying number of lecturers and PhD students. In addition there is administrative and support staff. Staff have backgrounds in medicine, education and psychology. The department's annual report provides a full account of staff resources (www.educ.unimaas.nl).

Do you have affiliated staff or other arrangements by which individuals carry out work for the department?

Yes. Through the matrix structure senior and junior staff from other faculties and departments contribute to educational development, research and teaching. On a regular basis a small number of overseas academics undertake sabbatical leaves in Maastricht. We have affiliations with a number of overseas medical schools and medical education departments.