

## The Edinburgh Declaration and Education of Doctors in the 21st Century

Henry J. Walton, Edinburg

The great honour it is for me to address the Münster Conference of AMEE is the greater because it enables me to express my profound esteem for Professor Dietrich Habeck, and the gratitude of the international medical education community for his outstanding contribution to the training of doctors worldwide.

Education in medicine now calls for a coordinated perspective which includes all three phases in the continuum of training doctors: basic medical education; next, postgraduate training (i.e. specialist training); and, third, continuing medical education, the maintenance of competence of experienced doctors in their workplace.

The insistence on maintaining a coherent overview of the whole continuum of training has gained increasing emphasis currently, as the third phase - continuing medical education - is given greater attention. In an important sense, all preceding training of a doctor is preparation for CME. The claim has been made in recent years that CE is the most accepted, the CME system and provisions for it should guide and determine both the preceding stages of basic medical education and the intermediate stage of specialist training. The World Federation for Medical Education has promoted this emphasis by co-sponsoring three successive international conferences on Continuing Medical Education, all held at the Annenberg Center in Palm Springs, California,<sup>1</sup> (the third in December 1989).

### The Present Scope of the Edinburgh Declaration

The Edinburgh Declaration was formulated at the World Conference on Medical Education in August 1988. Before that, six Regional Conferences were held: in Africa (Brazzaville), the Americas (Caracas), Europe (Dublin), the Middle East (Amman), South East Asia (New Delhi) and the Western Pacific (Kuala Lumpur).

The Declaration was read publically on 12 August 1988, very widely publicized in the media, and immediately afterwards published in the Lancet.<sup>2</sup>

The Report of the World Conference, published by the World Federation for Medical Education<sup>3</sup> in September 1988, represented the culmination of a worldwide co-ordinated programme of enquiry, with the full support of the World Health Organization, UNICEF, UNESCO, UNDP and other international bodies. There are three important sections in the Report:

- i. The Edinburgh Declaration, with 12 principles endorsed globally (pp. 8-9), constituting a mandate for reforming medical education.
- ii. The conclusions of the World Conference: the International Collaborative Programme for Support of Reorientation in Medical Education (pp. 35-43).

iii. The organizational framework for world action (p. 44). The priority aim, implemented fully by the Executive Council, and supported by the World Health Assembly, was to ensure that the Declaration was translated into all languages and disseminated widely, to medical teachers and others concerned with all phases of the training of doctors in every country.

Many countries have adopted the principles of the Declaration, sometimes by the government, as in e.g. Portugal, and often through the National Association for Medical Education as in Australasia, Spain, Chile, Mexico etc. Many individual medical schools have endorsed the Declaration, for example in the USA, the USSR, Sweden and numerous other countries. International bodies have approved the Declaration, to name only two, the World Organisation of National Colleges, Academies and Academic Associations of General Practitioners / Family Physicians (WONCA), and the World Medical Association (WMA). Many professional bodies have unanimously endorsed the Declaration, the most recent the Association for Medical Education and Research in Substance Abuse (at its annual conference in 1989 the US Secretary for Health, Dr Louis Sullivan, referred in his own remarks to the Declaration).

### **The World Health Assembly**

The World Federation anticipated, when the global enquiry was first planned, that the World Health Assembly would receive its Conference Report and the Edinburgh Declaration. At its forty-second meeting on 19 May 1989 in Geneva, the Assembly, the health parliament of the world, adopted the Resolution WHA 42.38:

"Edinburgh Declaration on the Reform of Medical Education".

### **Regional Sessions, Regional Offices of the World Health Organization**

In accordance with WHA 42.38 a Resolution was passed by the Panamerican Health Organization in September 1988:

- The Americas, at Washington, 10th Plenary Session, 30 September 1988, Resolution XII, 32nd meeting of the Direction Council of the Pan-American Health Organization, CD33/FR (Eng.).

Corresponding resolutions have been adopted by two of the other Regional Sessions:

- Africa, at Niamey, 39th Session, 13 September 1989, AFR/RC39/R10.

- South-East Asia, at Bandung, 7th Meeting, 2 October 1989, SEA/RC 42/R5

Resolutions will be introduced during 1990 in Europe, the Eastern Mediterranean and the Western Pacific Regions.

### **Ministerial Consultations**

The Edinburgh Declaration led to the holding of Ministerial Consultations, bringing together Ministers of Health, Ministers of Education and medical educators.

Principle 9 of the Declaration was one of four improvements requiring international action to: "Encourage and facilitate cooperation between the Ministries of Health, Ministries of Education,

community health services and other relevant bodies ...”

To implement principle 9, the World Federation for Medical Education undertook to arrange six Ministerial Consultations in Europe, Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific. Two Consultations have taken place, in Europe (Lisbon), and Africa (Abuja) and those in the Eastern Mediterranean and the Western Pacific Regions are being planned.<sup>3,4</sup>

In summary, to use the words of Dr Lobe Monekosso, the Regional Director of the WHO African Office at the Executive Board meeting of WHO in Geneva: "It is now generally accepted that the Edinburgh Declaration has the place in medical education which the Alma Ata Declaration has in the field of Health Care."

### **The Relevance of the Declaration to Education and Training in Medicine**

The preamble to the 12 principles of the Declaration states that:

"The aim of medical education is to produce doctors who will promote the health of all people, and that aim is not being realized in many places, despite the enormous progress that has been made during this century in the biomedical sciences."

The reference to "all people" denotes the goal of equity, and raises a most serious and potentially divisive issue. Will the medical profession in the future, press for the right to health care of all people, particularly on behalf

of those people without proper access to health care? As Leon Essenberg has insisted, to espouse equity in health is to adopt the position of reformer, a role which physicians now and perhaps also may recoil from adopting in the next century.

The new concept of medicine accords equal importance to the promotion of health as it does to cure of illness. Health promotion is not currently a feature of medical school curricula, nor does health promotion feature in present-day postgraduate training. The need to reorient health services to achieve improvements in health was the theme of the Ottawa Charter on Health Promotion.<sup>6</sup> In the United Kingdom health promotion has been identified as a priority for the National Health Service in the next decade.<sup>7,8</sup> Up to now this reform has been focused on heart disease prevention, immunization and well-woman services.<sup>9</sup> Emphasis on health promotion has been conspicuously minimal in medicine. Lack of resources, time constraints and the paucity of examples of good practice are usually adduced as excuses for minimizing clinical exploration.

### **Interpersonal Skills**

The preamble of the Declaration states:

"The individual patient should be able to expect a doctor trained as an attentive listener, a careful observer, a sensitive communicator and an effective clinician ..."

Interviewing, as a means of history-taking, is the single most important skill for enhancing the capacities of doctors to understand and help their

patients. The doctor-patient relationship used to be a main cornerstone of medicine.

Inadequate interpersonal skills are a main deficiency impairing ineffective doctors. The level of patient satisfaction depends on the attitude of doctors and the amount of information they succeed in communicating to patients.<sup>10</sup> The majority of complaints by patients deal with defects in interpersonal skills, such as listening, understanding and communicating.

Future doctors will certainly be expected to master the skills necessary to establish and maintain a respectful, empathic and helpful relationship with their patients.<sup>11</sup> Doctors will continue to be regarded, sometimes mistakenly, as experts in this crucial aspect of medical practice, and will be required to function as specialist practitioners of medicine. Lack of interviewing and community skills viewed as the root cause of the malaise in relations of patients and the public with doctors.<sup>12</sup>

Doctors have the obligation to uphold scientifically and professionally the essential clinical instrument in medicine: the medium of dialogue occurring within a human relationship.

### **The Behavioural Sciences**

The preamble of the Declaration has a statement:

"Scientific research continues to bring rich rewards, but man needs more than science alone, and it is the health needs of the human race as a whole, and of the whole person, that medical educators must affirm."

The sciences basic to medicine include, of course, the behavioural sciences. They have never been more important, now that a new concept of health care is being adopted: primary health care. Not to be confused, as it often is, with general practice, the primary health care concept gives main emphasis to prevention of illness, promotion of health, the responsibility of patients for their own health, teamwork among health professions, involvement of the community in health care, and recognition of intersectoralization (i.e. the fact that many sectors other than the health professions are implicated in health care, e.g. finance, politics, the law, religion, engineering, etc.).

The future will call for doctors to be more expert in the behavioural sciences, again both for the development of their own specialty and also as a resource for medicine in general.

However, the passage quoted conveys a scruple about science. Medicine is now under serious criticism for purveying a restricted paradigm of science. "The prevailing bio-medical model has been found wanting".<sup>13</sup> The modern paradigm of medicine which has lately emerged does not replace but broadens prevailing thought about disease and its manifestation. The new emphasis seeks to perceive and explain the individual differences in illness which are brought about by personal, social and psychological factors.

Doctors have been faulted as having failed to correct the scientific limitations of contemporary medicine, related to the retention of a 17th century world view. The clinical method, which we can call traditional, has been remarkably successful for attaining certain goals. This method is not sufficient for the needs of the

present, and certainly will not serve in the 21st century. A transformed clinical method might have been expected from the impact of the social sciences on clinical medicine. Major reorientation is required in the mainstream of clinical method now being taught in the more than 1350 medical schools in the world. To advance an extended paradigm of science in medicine is the task of those who teach doctors as the 20th century closes. Certainly, medical education in the next century must become more properly scientific, with the emphasis on framing questions and obtaining evidence, rather than the present emphasis on memorizing isolated facts which are often soon obsolescent.

The Edinburgh Declaration sets out eight reforms, assuasively called improvements, which are within the capacity of the medical school itself to bring about.

### 1. Educational settings

The first principle deals with educational settings. The nature of medical practice in the next century will prohibit education and training concentrated almost exclusively on major hospitals. All the medical specialties providing educational programmes for medical students need to use all the health resources of the community which have to be mobilized for training. More than that, people in their home and work settings are self-evidently of concern in medicine, when prevention and health promotion are integral to health care. Medicine cannot any longer make its teaching and training contribution when practised and taught almost solely in the general hospital domain.

Concentration on the hospital as the main educational setting will be increasingly unacceptable with changes in demography, patterns of illness, technological advances reducing hospital stay, declining bed numbers, and the greater range of care in the community. Medical students and trainees will become increasingly articulate and influential about the resources provided for them to learn in, and educational research increasingly will investigate empirically what educational gains result in the various settings.<sup>14</sup>

### 2. National health priorities

Medical teachers are often not informed about their country's national health plan, even in nations where an explicit health plan is promulgated.

Current medical teaching disquietingly requires medical students to spend most of their time observing consultations.<sup>15</sup> While such passivity is now educationally unacceptable, the equal objection is that medical teachers (who do not esteem their educational responsibility as they do their specialist expertise and their research) have as their main concerns interests which are not germane to their students or trainees. A serious and apparently insurmountable obstacle in medical schools is that the medical teachers are specialists while the medical students, rightly, are generalists. The challenge for the future is to train even highly specialized medical teachers to be less subjectexperts and more facilitators of learning.

Principle 2 of the Declaration also refers to "the availability of affordable resources". National

health services, such as the NHS in the U.K., is at present is described as a non-competitive service, and the main thrust for the future of the Government's 1989 White Paper<sup>8</sup> is to introduce competition.<sup>15</sup> At a fundamental level, the proposed NHS reforms will bring about a separation of the demand and supply sides of the health care market. Medical students, as future doctors, will need to understand the future context in which the price of health services will be negotiated.<sup>16</sup>

Such considerations may conflict with the principle of equity, access for all to health care, which is basic to the spirit of the Declaration. There are 37 million U.S. Americans without health care coverage. The "Black Report" of 1980 has documented well in the U.K. the social class inequalities in health, the greater infant mortality, deterioration in health, failure in utilization of health services, underprovision in working class areas, and identifies the very many inhabitants of the U.K. not catered for medically despite the then universally admired NHS.<sup>17</sup> The doctors of the future will need to have a comprehensive grasp of the services needed in their communities and the social inequalities in ill health, an understanding not now conferred by their training.

### 3. Active learning throughout life

The third principle of the Declaration says plainly:

"Ensure continuity of learning throughout life, shifting emphasis from the passive methods so widespread now to more active learning, including self-directed and independent study as well as tutorial methods."

All medical educators are now compelled to scrutinize their curricula and programmes. The traditional heavy focus on cognitive aspects of learning (narrow concern with factual content) is obsolete, as are timeworn didactic teaching postures and practices. Participatory learning methods are obligatory now and will be more so in the future. The problem based learning approach<sup>18</sup> is the only available solution to the crisis of information overload, and the rapid obsolescence of much knowledge. The pressing requirement in medical schools and postgraduate curricula is to enhance the students' autonomy of learning, to promote their study skills, and to foster their aptitude and motivation for self-study:

the absolute obligation in medical school and in specialist training is to equip future doctors to continue learning throughout professional life. Any educational component which blocks such aptitude on the part of the student for self-study must be regarded as malign.<sup>19</sup>

### 4. Professional competence

Curricula and programmes have not to ensure that professional competence and awareness of the appropriate social values are acquired, and are examined for, rather than retention and recall of factual information (often of a low level of complexity and dubious applicability or effective expression in the clinical setting).

When doctors apparently know what to do and how to do it, but all the same don't do it, the notorious "performance gap" results,<sup>20</sup> a basis for the multitude of quality deficiencies which can be identified in all aspects of health care.

That the examination procedures used in medical schools and postgraduate programmes are unreliable, invalid and anachronistic is a truism;<sup>21</sup> they certainly must not persist into the reforms which are now sought in all stages of the training of doctors.

### 5. Abilities of medical teachers

The fifth principle is also explicitly stated:

"Train teachers as educators, not solely experts in content, and reward education excellence as fully as excellence in biomedical research or clinical practice."

This precept certainly does not apply at present in medicine. Often the evasion is cited, by educational administrators unacquainted with the technical literature, that educational performance criteria do not yet exist, to compete in the promotion stakes with the publication index. Current university reforms in the UK already demand that competence to teach is assessed. Educational expertise should of course be rewarded. In the next century present-day practice will be mystifying; the sociologist Bloom reports that the concern in medical schools with curricula is little more than cosmetic, so low is the status of teaching when contrasted with research achievement, clinical excellence and laboratory work itself.<sup>22</sup>

Medical teachers and medical teaching methods naturally determine the learning approaches of medical students. These learning approaches, influenced by medical teachers, will contribute to the emotional effects on students which curricula have as well as their cognitive effects. The educational literature documents amplify the

enormous amounts of anxiety created in medical students, who routinely are overwhelmed by the time demands and amount of detail which challenge and stress them, irrationally so and to an extent irreconcilable with mature, autonomous study. Medical teachers require training in education to become facilitators of learning, fitted to mediate higher professional education to suit the doctors being trained for the next century.

### 6. Health promotion and disease prevention

The doctors of the future will not be protected by claims that too little is known of disease prevention, and the scientific standing of health promotion is too suspect, for either to feature in curricula and programmes which, at present, are almost entirely disease-oriented.

A paradigm which will save the situation is the natural history of disease model. Future doctors will include among the stages of disease not only the clinical onset, but also the preceding stage of biological (i.e. pre-symptomatic) onset. They will also be attentive to the stage before that, when disease is absent, when risk factors are the important concern, and when primary prevention can be fostered. AIDS is a disease which pre-eminently illustrates this emphasis.

### 7. Integration of science and practice

The present division between the so-called preclinical sciences and the clinical subjects will not survive into the next century. Already any recourse to a problem based learning approach makes such a schism outworn.

Although medicine became scientific in the 19th century,<sup>23</sup> the natural sciences had a major impact on medical practice only since the 1940s.<sup>24</sup> The further advance now required is that science must be incorporated within a larger social framework, enabling the future doctor to attend effectively to the patient as well as the disease. Science can be bad for your health: in one study of 815 consecutive patients of a university hospital's general medical service, 36 per cent developed an iatrogenic illness, usually from drugs or invasive procedures; in 9 per cent of patients a major untoward incident happened, in 2 per cent a factor contributing to the patient's death.<sup>25</sup>

A better differentiation will be made next century between science on one hand and technology on the other; and the mistake will be less common that biomedical science is the only science relevant for medicine. It is an obligation of physicians as educators to ensure such necessary sophistication develops, and that scientific acumen also comprises technical comprehension about the personhood of patients.

### 8. Selection of students

The final principle of the Declaration within the scope of medical schools themselves to alter (unless the country has curtailing laws) is the eighth:

"Employ selection methods for medical students which go beyond intellectual ability and academic achievement, to include evaluation of personal qualities."

How best to assess the non-intellectual attributes of applicants to medical school is as yet unestablished. All medical schools should therefore be required to carry out research into the effectiveness of their selection procedures.

Any attributes which are inherent (i.e. which cannot be conferred by professional training) have to be selected for. Selection has become a more serious issue with the recent decline in the appeal of a medical career. In the US there has been a drop in qualified applicants from 2.5 for each medical school place in 1977, to only 1.7 in 1987. Medical students complain insistently about the deficiencies of their learning experiences (in Californian teaching hospitals they cite the ubiquity of AIDS cases). The US population of medical students has changed towards far fewer white males and far more women (one-third of entrants).

With greater scope given in medicine to psychology and the other social sciences, personality factors will undoubtedly receive more attention among the procedures for selecting entrants from among applicants.

### 9. Ministerial Consultations

The imperative need to bring together government departments of health and departments of education has been emphasized already. Medical schools are usually in the education sector, while postgraduate training and CME are in the domain of health. Disasters have resulted, in Europe as well, because these governmental departments function separately, often not communicating properly, when the continuum of medical education and the health care system is concerned.



## 10. Admission policies

Of the greatest concern, and perhaps the overwhelming indicator of the irrationality of the medical education system, is the imbalances in the production of doctors.

What seems especially illogical and unpardonable to the outsider appraising medical education is the lemming-like proliferation of unemployed doctors.<sup>26</sup> There are 23,000 unemployed doctors in Spain; 45,000 unemployed doctors in Italy; in India 40,000 jobless doctors. The United States forecasts 150,000 jobless doctors by the year 2,000. Such irrationality of planning can surely not be allowed to persist. If it does, the fear is civil unrest by unemployed doctors, social agitation which may draw in the doctors in post with resulting disruption to health services of countries. What should be done with the present masses of jobless doctors is major unsolved problem.

## 11. Teamwork

Enough has been said about the mounting emphasis on the better teaching of medicine in and outside the hospital. More attention is now needed to closer conjunction between members of all the other health professions during their respective training programmes. In the next century the challenge of multiprofessional training will have been grasped, and the present educational fragmentation of the health professions reconsidered.<sup>27</sup> A medical school, and indeed the entire university of which it is part, should be a resource for health of the community in which it is situated.<sup>28</sup>

## 12. Continuing medical education

The main sector of medical education has now come to be CME, the essential provision and resources for a country's doctors to maintain their competence throughout professional life. CME is a clearly identifiable, extensive and varied range of educational activities undertaken by experienced doctors. CME, which is distinct from, but intimately related to, delivery of health care, has now to be available to the doctor at his workplace, and must meet the criterion of adult learning; that one only learns what is relevant to one's interest and germane to one's own purposes. By the next century CME resources should be both nationally and internationally devised and set up.

## Conclusion

All branches of medicine, are urgently confronted by the necessity to change curricula, specialist training courses and continuing education, make each phase of training congruent with the health needs of contemporary societies. The obstacles to bringing about curricular change are notorious. The World Federation for Medical Education, as a consequence of intensive international enquiry, has obtained a globally agreed mandate for reorienting all stages of medical education. The Federation's Collaborative Programme is being implemented in keeping with the decisions of the world's medical teachers. Successful reform can only result from well defined and educationally justified attention to all components of the highly complex system for training the doctors needed for the future.

Literature

1. **World Federation for Medical Education (co-sponsor) 1988.** First World Conference on Continuing Medical Education, Annenberg Center, Rancho Mirage, California. *Med. Educ* 22, 159-162.
2. **The Edinburgh Declaration 1988.** *Lancet*, 8608, 464.
3. **Report of the World Conference on Medical Education, 7-12 August 1988.** Edinburgh: World Federation for Medical Education.
4. **Ministerial Consultation for Europe 1989.** *Med Educ* 23, 205-208.
5. **Ministerial Consultation for Africa 1989.** *Med Educ* 23, 559-560.
6. **World Health Organization and Canadian Public Health Association 1986.** Ottawa Charter for Health Promotion. Copenhagen: World Health Organization.
7. **Department of Health and Social Security, England, 1987.** Promoting Better Health. London: Her Majesty's Stationery Office.
8. **Department of Health 1989.** Working for Patients. CM 555 London: Her Majesty's Stationery Office.
9. **Fullard E, Fowler G, Gray M, 1987** Promoting prevention in primary care. *Brit Med* 294, 1080-1082.
10. **Comstock LR, Hooper EM, Goodwin JM, Goodwin JS, (1982).** Physician behaviours that correlate with patient satisfaction. *Med Educ* 57, 105-112.
11. **Gray C, 1982.** Beware the malpractice minefield. *Canad Med Assoc* 127, 243-245.
12. **Des Marchais JE, Jean, P, Castonguay 1990.** Training in interpersonal skills. *Med Educ* 24.
13. **White KL, 1988.** The Task of Medicine: Dialogue at Wickenburg. Menlo Park, California: The Henry J Kaiser Family Foundation.
14. **Lockwood DNJ, Goldman LH, McManus IC, 1985.** Student audit of clinical study teaching. *Brit Med* 291, 791-821.
15. **Euthoven A, 1989.** Words from the source. NHS Review Article, *Brit Med* 298, 1166-1168.
16. **Ferguson B, Posnett J, 1990.** Pricing and Openess in Contracts for Health Care Services. University of York: Centre for Health Economics.
17. **Townsend P, Davidson N, 1982.** Inequalities in Health: the Black Report. Harmondsworth. Penguin Books.
18. **Walton HJ, Matthews MB Eds., 1989.** Essentials of Problem Based Learning. *Med Educ* 23, 538-558 and ASME Medical Education Booklet, Dundee: Association for the Study of Medical Education.
19. **Newble DI, Entwistle NJ, 1986.** Learning styles and approaches: implications for medical education. *Med Educ* 20, 162-175.
20. **Williamson JW, 1978.** Assessing and Improving Health Care Outcomes. Boston: Ballinger.
21. **Hart IR, Harden RM, Walton HJ, Eds., 1986.** Newer Developments in Assessing Clinical Competence. Montreal: Health Publications Ltd.
22. **Bloom S, 1989.** The medical school as a social organization: the science sources of resistance to change. *Med Educ* 23, 228-241.
23. **Youngson AJ, 1989.** Medical education in the later 19th century: the science take-over. *Med Educ* 23, 480-491.
24. **Eisenberg L, 1984.** Rudolph Ludwig Karl Virchow. Where are you now that we need you? *American Journal of Medicine* 77, 534-532.
25. **Steel K, Gertman PM, Crescenzi, et al., 1981.** Iatrogenic illness on general medical service at a university hospital. *New England Journal of Medicine* 304, 638-642.
26. **Bankowski Z, Fulop T, Eds., 1987.** Medical Manpower out of Balance. Proceedings of the Acapulco Conference, Geneva: World Health Organization.
27. **Walton H, Ed, 1986.** Education and Training in Psychiatry: a case study in the continuity of medical education. London: King Edward's Hospital Fund and Oxford University Press.
28. **World Health Assembly 1984.** The Role of Universities in the Strategies for Health for All: Technical Discussions. Geneva: World Health Organization.

Prof. Henry J. Walton, M.D., F.R.C.P., F.R.C. Psych.  
 President, World Federation for Medical Education  
 International Medical Education, University of Edinburgh  
 Teviot Place, Edinburgh EH 8 9AG. Scotland, U.K.