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# **The doctor we are educating for a future global role in health care**

## **Short title: Education for the doctor of the future**

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#### Declaration of Interest

We have no Declaration of Interest to report.

## **Abstract**

Health care is deficient in many parts of the world, in money, facilities and manpower. In wealthy countries, the costs and complexity of health care are increasing unsustainably. Nevertheless, richer countries claim an ever escalating need for doctors, who migrate from poorer countries, with an ensuing global health workforce crisis. These political, social, demographic and international events necessitate a discussion on the roles and values of the doctor in the world today. The international mobility of both doctors and patients underlines the need for a global definition.

Only when these roles and values are agreed in a global perspective, will medical education be capable of producing a professional equipped to fulfil that role. This doctor will then be useful both as a leader and as a member of health care teams with a flexible composition, related to resources and needs of particular regions, and at the same time be able to practise within any given health care system.

An international task-force of the World Federation for Medical Education (WFME) is working to agree themes relevant to the role of the doctor globally, and developing a statement that can be used world-wide, and used to develop medical education policy.

## **Background**

Medical students of today, both undergraduate and postgraduate, will see huge and continuing changes in medical practice and the delivery of health care during their future careers (Adli, et al., 2009). These changes will follow developments in science and clinical practice, but also will relate to new health priorities and threats to public health, rising expectations from patients and the public and changing attitudes in society. Also, the accountability of health care to the population and society (Global consensus on Social accountability, 2010) and issues of professionalism (Blackmer, 2009) must be considered in both planning and delivery of health care and medical education. The focus in health care is shifting from the unique doctor-patient relationship to the interaction of the patient with the health care team (Szlezák, et al., 2010).

Medical care is deficient in many parts of the world; in contrast, in richer countries the costs and complexities of health care are rising unsustainably. Both rich and poor societies need to understand what can only be done by doctors, and what should be done by other members of the health care team, to plan their health workforce efficiently (Gordon and Lindgren, 2010). Once this role of the doctor is defined, the content and process of education and of life-long learning, to produce a person equipped to fulfil that role, can be decided. To achieve this, institutions responsible for the education of doctors must involve all relevant stakeholders from society, to develop an understanding of the professional challenges for which future doctors need to prepare. This may be set out as a set of professional outcomes (Schwartz and Wojtczak, 2001; Scottish Deans' Medical Education Group, 2008) but must also address concerns about scientific education, clinical skills, quality and diversity in education, and

development of teaching staff. Above all, medical education at all levels must respond to the health challenges in society of today and of the future.

### **Is a definition of future global roles and values of the doctor needed?**

The role of the doctor has for long been assumed and unspoken, despite changing patterns of illness and many explicit statements about other professions. In discussing these roles, the focus has normally been parochial, and on the needs of today or even yesterday, rather than looking at the future and thinking globally. As we develop health care and medicine in a rapidly changing environment, an implicit understanding of what doctors do, without a proper analysis of their function, is no longer acceptable (Gordon and Lindgren, 2010). A definition of this function, and the competencies to meet it, is needed, and this definition must not be bound to one particular culture or region. The definition of competence must include elements about attitudes and personal life-long development; the competence to develop, improve and change. There is an increased focus on team-based delivery of health care, and a definition of the role of the doctor cannot be done in isolation from other professions. We should not repeat the mistakes in much of the literature about professional roles in other health-care occupations, which often make little or no reference to the role of the doctor (Godlee, 2008).

### **How to define the global roles and values of the doctor?**

A task force (TF) with global representation from international agencies in health and education, and including individuals with expertise in relevant areas, was set up in 2010 under the leadership of the World Federation for Medical Education (WFME). A definition of the future role of the doctor was considered necessary, for the reasons set out above. In particular, a definition is necessary for medical education to know what it should do.

The subjects identified by the TF to be most significant for the roles and values of doctors that we are educating for the future are summarized in Table 1.

**[Table 1 about here]**

Professionalism is a term that is often used but seldom clearly defined (Brennan, et al., 2002; Van Mook, et al., 2009). But, to develop professionalism in students and trainees, the features that constitute a professional doctor must be agreed and ways to impart these features identified. The role of the doctor as a communicator to patients, to other doctors and to health care professionals is obvious, but this role in relation to society generally is less often considered. The duty to teach is self-evident in the daily life of doctors, but less obvious in relation to other societal stakeholders. Doctors also should have the research skills to reflect on, review and investigate their own practice as well as being able critically to appraise research reports. At its highest level this is the role of the clinical scientist. Although all doctors must have an understanding of evidence in medicine, few will have a career in research.

Freedom to move is an indisputable human right, but migration makes it necessary to address the global imbalance of health care resources. How do we alleviate the pressures for social migration and how do we alter the one-way direction of medical, migration, to convert “brain drain” to “brain circulation”. Narrow specialisms with lack of flexibility lead to gaps in health care provision. Thus, medical education should train more doctors with a clearer focus on the primary care level and away from narrow specialisation.



Whilst the one-to-one doctor-patient relationship is of central importance to the practice of medicine (Royal College of Physicians, 2010), doctors are not accountable exclusively for the care of the individual patient. Decisions on care of individual patients can have large effects on the health care system. Thus, the future doctor must take more responsibility for the overall management of resources, and be advocates of population health needs. By taking on management roles, doctors may fulfil important roles in population needs-based healthcare, producing effective achievement of health outcomes, efficiency and equity, with emphasis on prevention and on patient and public satisfaction.

The doctor has multiple roles in society (within and beyond medicine) particularly in community health leadership and the management of health care. Medical schools must anticipate the needs of society for the next ten or twenty years, and produce competent professionals who have the ability to be agents for change.

It is challenging to the role of the doctor to be, simultaneously, both the leader and a member of the health care team. Doctors are no longer automatically the leader and the focus has moved away from the doctor-patient relationship to the interaction of the patient with the health care team, but only doctors have the competence to make difficult medical decisions based on scientific grounds. The doctor's role cannot be to do everything; we should accept that others are better at doing some things. At the same time the culture of team working is not only related to "task-shifting" (Laurant, et al., 2005), but also to working together, with a collaborative and flexible approach to tasks being done by the most appropriate member of the team. It is a challenge to preserve the doctor-patient relationship in this context.

Leadership should also be understood in a variety of circumstances, not only in health care teams. Understanding of flexible leadership and management offers ways to develop health care systems in different parts of the world in a suitably flexible way, based on available resources and competencies, without producing doctors with only local, special or restricted characteristics.

### **How do these roles and values compare with other relevant work?**

Several commissions and publications have, in recent years, addressed the role and competence of the future doctor and the implications for medical education (Pardell-Alentà, et al., 2009; Frank, 2005; General Medical Council, 2009; Schwartz and Wojtczak, 2001; Frenk, et al., 2010). Most are written from a particular regional or cultural perspective and most represent the needs of richer countries. They come to generally agreed conclusions on the important future roles of doctors, summarized in Table 2.

**[Table 2 about here]**

These agreed priorities are clearly expressed in Tomorrow's Doctors from the General Medical Council (General Medical Council, 2009), the Scottish Doctor (Scottish Deans' Medical Education Group, 2008) and the Catalan Fundacion Educacion Medica position paper on the physician of the future (Pardell-Alentà, et al., 2009). The latter paper critically examines various scenarios in which physicians work, proposes a profile of the professional physician of the future and puts forward ways in which the gap between this future and the present might be bridged. The Royal College of Physicians working party report the Future Physician (Royal College of Physicians, 2010) identifies a need for a shift away from the illness-response model, on which much of health care is currently founded, to a partnership

approach for long-term health gain. The object is not so much to treat acute illness as to collaborate on methods of disease prevention, amelioration and stabilisation. In this doctors will need to cultivate a sharp focus on their role in society, accepting responsibilities beyond the health of individual patients. Gorman (2008) emphasises the ability of the future doctor to be re-trained and to recognise and employ suitable innovative disruptive changes, even if they alter the doctor's personal role. Richard Smith (2009) focuses on healing ability, capacity to change, understanding of systems, leadership and "followership", patient-centred practice, communication skills, (particularly listening skills), comfort with technology, understanding of evidence, profound ethical understanding, love of diversity and enthusiasm for learning.

In the UK consensus statement on the role of the doctor, written under the leadership of the Medical Schools Council (Medical Schools Council, et al., 2008), agreement between the general public and doctors was found on almost all elements of the role of the doctor, although doctors accepted uncertainty during medical treatment more than the general public: doctors must deal with uncertainty, although patients want no doubt.

### **Do the doctors we are educating meet the needs and expectations of patients and society, and what are the implications for medical education?**

In many parts of the world there is an obvious mismatch between medical school graduates, the distribution of specialists and the needs of the health system. Educational institutions must contribute to ensuring that graduates are suitable to be employed where they are most needed. Medical education has not kept pace with this need, and has a regrettable history of producing doctors fit for the past, and perhaps for the present, but not for the future. This need for change, to meet the needs of patients, learners and teachers (Cooke, et al., 2010),

must involve postgraduate medical education and continuing professional development as well as medical schools. A systems based educational reform to improve the performance of health systems by adapting core professional competencies, including global roles and values of the doctor, to specific contexts is needed (Frenk, et al., 2010). Particularly, a global perspective on health system needs and actions, to counteract the uneven distribution of resources and competence is required. The Carnegie Foundation (Cooke, et al., 2010) calls for additional educational reforms: use of competency-based assessments to standardize learning outcomes and allow the pace of learning to be individualized; integration of clinical experience and science learning; promotion of habits of inquiry and improvement as means of achieving excellence and continuously advancing the field; and focus on identity formation and professional development of learners.

To bridge this mismatch, out-comes based education has clear advantages (Harden, 2009), but only when we have defined what the role of the doctor should be, can we define these educational outcomes. However, defining outcomes and competencies is not enough. Grant (2000) argues that a competence framework has nothing to offer the educational designer, because competence standards specify what people should be able to do, but say nothing about how this state is to be achieved. Standards for evaluation of quality and accreditation, such as the WFME standards for undergraduate and postgraduate education and CPD (World Federation for Medical Education, 2003) are methods to ascertain that the educational process worldwide is of an acceptable standard and recognized.

The WFME task force concluded that the areas presented in Table 1 are of particular importance for medical education to meet global needs of patients and societies. An

educational process with defined outcomes and competency-based assessment should be constructed.

### **Is there a real shortage of doctors in the richer parts of the world?**

Migration of health professionals from the east, and from Africa, to the USA and to Western Europe has led to a global health workforce crisis. New Zealand, the UK and the USA rely on overseas physicians for over 25% of their workforce, even more in some specialities.

Almost 40% of South African trained physicians go on to practise overseas. The impact is greatest on those countries with the most disease, which are left chronically under-resourced (Blumenthal, 2004). In spite of this, there is still a claim in many rich countries that more doctors are needed, even though there may be one doctor for every 200 of the population, and despite the fact that the costs and complexity of health care delivered by these doctors are rising unsustainably (Wennberg, 2010). Thus, there is a need to balance the incentives to experience other health care systems with incentives to return to the practitioner's place of education. Doctors also need continued educational, professional and personal support so as not to feel isolated or disillusioned. This is a problem also in richer countries where many graduates, motivated by social factors, are lost to other occupations.

This migration of doctors puts even stronger emphasis on the need to define tasks than can only be performed by doctors, rather than just simply educating more physicians (Gordon and Lindgren, 2010). In addition, richer countries should take global responsibility by limiting the employment of doctors to what is strictly necessary.

### **The internationalisation of medicine and of medical schools**

Internationalisation of medical education must imply a social contract between richer and poorer countries, a bilateral long-term agreement between the parties involved to benefit all, and to assist the development of society and health care systems in the poorer partners in the accord. But it must also include a dimension of “internationalisation at home”, and not only be related to international exchanges of students, graduates and teachers. Internationalisation of medicine might mean that richer countries educate more doctors than are required for their own purposes, to help supply doctors for service in poorer countries. There should also be measures taken to strengthen the health care and educational systems of poorer countries, to allow them to educate and retain adequate numbers of health professionals.

## **Conclusions**

Preliminary conclusions on the future roles of the doctor stress the importance of professionalism, combined leadership and membership of health care teams of varying composition, a scientific perspective on continuous improvement of medical practice and its management, and the social accountability to society and the needs of the patients. At the same time, the doctor should be a highly educated professional with responsibility for ultimate decisions in uncertain and complex situations. The solution to the global health workforce crisis is not only to produce more doctors. Instead, we must consider the needs of the population, society and the individual doctor as a professional in a flexible approach, within the economic and social circumstances of the country or region, to the composition of health care teams and systems. Clear definitions of the global roles and values of doctor is an important step in that direction.

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Table 1

**Subjects of particular importance for the roles and values of future doctors.**

Professionalism; its meaning and significance today, and its relevance for personal development

The doctor as communicator, educator and researcher

Demographic changes, migration and the future of medicine

The doctor as a manager of health care within society, and as a community health leader

The social accountability of medicine and the doctor

Leadership and membership within the health care team

**Table 2. Generally agreed priorities for the future doctor and medical education**

Mismatch of competencies with patient and population needs  
Teamwork  
Hospital specialist orientation at the expense of primary care  
Leadership  
Leadership to improve health-system performance  
Partnership approach with patients, for long-term health gain  
Social accountability  
Difficult decisions in situations of complexity and uncertainty  
Communication  
Professionalism  
Physician-scientist  
Generalist  
Capacity to change  
Profound ethical understanding  
Life-long learner  
Habits of inquiry and improvement  
Striving for excellence