

Global health learning outcomes for medical students in the UK

In an increasingly globalised world, medical schools need to establish and enhance global health education to ensure that all doctors have the relevant knowledge, skills, and behaviour to practise safely and effectively in their home country. The Global Health Learning Outcomes Working Group, comprised of 12 UK academics, students, and representatives of civil society with expertise in global health and medical education, developed a list of recommended global health competencies for medical students. These were extrapolated from the mandatory undergraduate learning outcomes listed in the General Medical Council's (GMC) report *Tomorrow's Doctors*.¹

There is not yet consensus on a definition of global health,² but certain key concepts underpin a global health approach: transnationalism, with national borders increasingly porous to disease, migration, and trade; holism and interdisciplinarity, taking a broad approach that includes subjects beyond the health sciences, such as law and international relations; interdependence and interconnectedness, recognising that global health threats are relevant to richer and poorer countries and can be tackled only through collaboration; and an emphasis on understanding inequalities between and within countries. Our approach draws on themes from several key articles on global health that highlight the need for health professionals to be better equipped to address present and future challenges.³⁻⁵

Global health education for medical students can be divided into three categories: compulsory teaching, to prepare all doctors for practice in their home country; optional teaching for undergraduates with a special interest in global health; and pre-elective training. The global health learning outcomes proposed here are for compulsory teaching only. The outcomes focus on medical education in the UK, but may also provide examples and stimulate debate for other disciplines and in other countries.

The development of the learning outcomes was initiated at a conference on UK Global Health Education in 2009, organised by the Global Health Education Project of the Medsin Student Network, which identified compulsory global health teaching for medical students as a neglected issue. The draft learning outcomes, developed by the Working Group through iterative discussion, were opened to public consultation and

circulated widely to universities, professional and educational bodies, Royal Colleges, and civil society groups. The 40 responses were reviewed and used to develop an updated set of learning outcomes (panel for an abbreviated version, webappendix for full version).

Some *Tomorrow's Doctors* outcomes can be met only by the inclusion of global health, whereas other outcomes will be enhanced by its incorporation. The global health

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Panel: Proposed global health learning outcomes for medical students

Global burden of disease

- 1 Discuss communicable and non-communicable disease at the global level
- 2 Discuss the impact of international travel and migration on the diseases seen in the UK
- 3 Discuss the causes and control of global epidemics

Socioeconomic and environmental determinants of health

- 4 Demonstrate awareness of the non-clinical determinants of health, including social, political, economic, environmental, and gender disparities
- 5 Examine how health can be distributed unequally within and between populations in relation to socially defined measures
- 6 Describe how the environment and health interact at the global level

Health systems

- 7 Discuss the essential components of a health system, using the WHO model
- 8 Recognise that health systems are structured and function differently across the globe
- 9 Recognise that the NHS has an international workforce and explain the impact of this within the UK and overseas
- 10 Examine the causes and scale of inequalities in health workforce distribution

Global health governance

- 11 Demonstrate awareness of the complexity of global health governance, including the roles of international organisations, the commercial sector, and civil society
- 12 Discuss the role of WHO as the international representative body of national governments for health
- 13 Discuss how health-related research is conducted and governed globally

Human rights and ethics

- 14 Respect the rights and equal value of all people without discrimination and provide compassionate care for all
- 15 Examine how international legal frameworks impact on health-care delivery in the UK
- 16 Discuss and critique the concept of a right to health
- 17 Describe the particular health needs of vulnerable groups and migrants
- 18 Discuss the role of doctors as advocates for their patients, including the importance of prioritising health needs over other concerns and adhering to codes of professional conduct

Cultural diversity and health

- 19 Demonstrate understanding that culture is important and may influence behaviour, while acknowledging the dangers of assuming that those from a particular social group will behave in a certain way
- 20 Communicate effectively with people from different ethnic, religious, and social backgrounds, where necessary using external help
- 21 Work effectively with colleagues from different ethnic, religious, and social backgrounds

outcomes, therefore, do not represent additional standards but instead highlight the global health issues that are implicit in current ones. They are intended to be integrated across the undergraduate curriculum rather than implemented as a standalone course, and are not always exclusive to global health; indeed, many outcomes will not require additional teaching time or resources but can instead be taught through existing disciplines. The specifics of teaching delivery and assessment have been left for each university to decide upon, based on local possibilities and preferences.

The outcomes are grouped into six themes. First, knowledge of the global burden of disease is essential for UK doctors in an increasingly interconnected world, as demonstrated by local responses to pandemic influenza and transnational influences on risks for non-communicable diseases, such as smoking and obesity.⁶ Emphasis is placed on understanding concepts and patterns relating to the leading causes of death and disability globally.

Second, socioeconomic and environmental determinants underpin the health of populations and are responsible for stark health inequalities, as emphasised by the 2008 WHO Commission and by growing concern about the impact of climate change on health.⁷⁻¹⁰ Doctors must understand the nature and importance of these determinants if they are to tackle health inequalities through their roles as leaders and gatekeepers of health services and as clinicians responsible for patient care.

Third, health systems are under increasing strain because of ageing populations and a growing demand for services.¹¹ Meanwhile, the process of globalisation has opened health systems to the transnational flow of patients and health workers and a larger role for international corporations. Doctors will be expected to adapt to a changing professional landscape while increasing cost-effectiveness and the quality of patient care. If they are to lead future policy debates on health-system reforms, they must receive basic training in health systems, financing, and planning.

Fourth, global health governance is growing in scope and reflects increasing transnational interdependence of diseases, determinants, and resources through migration and trade. The relevance of international institutions to the UK continues to rise, as evidenced by the EU Working Time Directive and WHO's Surgical Safety Checklist.^{12,13} Doctors need to

understand existing policies if they are to contribute to their development and implementation.

Fifth, a rights-based approach to health has been adopted by many patients and policy makers, and human rights frameworks are now regularly referenced in court rulings that relate to health services. Future doctors will be expected to translate these concepts into practice and to conduct themselves appropriately and act as advocates for the welfare of their patients.

Finally, the UK is culturally diverse with many settled communities that have their roots in other parts of the world. These communities evolve and add to the UK's ethnic, religious, and linguistic diversity. This has practical relevance for health care and requires health professionals to translate cultural understanding into appropriate skills and behaviour.

The outcomes described in this paper are an important step forward for global health and medical education. They aim to define and refine the global health implications of GMC's *Tomorrow's Doctors* report¹ and ensure that all graduating medical students are equipped with the necessary global health knowledge, skills, and behaviour to practise competently and safely. The development of these outcomes is only a first step; ongoing collaboration will be required to identify and share innovation and good practice in teaching methods and assessment. Further work is needed to strengthen pre-elective training and to develop global health competencies for other health disciplines, in other countries, and for postgraduate medical education. The careers of today's medical students will span the next 50 years, during which time the relevance of global health to medical practice will undoubtedly increase. The next generation of doctors must be equipped to adapt to new global threats and opportunities, so that they can continue to learn throughout their careers.

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