



CHANGE/INNOVATION

Health Professions Education for Adapting to Change and for Participating in Managing Change¹

C. E. ENGEL

Centre for Higher Education Studies, University of London, UK

ABSTRACT *This paper outlines a case for a new approach to the education of future professionals. The magnitude and potential seriousness of changes to be anticipated in the first half of the new century challenge institutions of higher education to prepare their students to become able to adapt themselves to change and to participate in the management of change – not only in relation to their own profession, but more widely for the benefit of society at large.*

The Network of Community-Oriented Educational Institutions for Health Sciences is planning three major programs which are designed to help meet this challenge in the 21st century. The first of these programs will set out to identify generic competencies that are needed for adapting to change and for participating in managing change. This is to include not only profession-specific changes, but also changes that affect the well-being of society as a whole. The second program will address the related need to develop educational interventions that are designed to foster competencies for interprofessional and intersectoral collaboration. The third of these programs accepts that serious attention to effective education for the professions will require institutionalization of recognition and reward of creativity and commitment in education.

Introduction

It is a truly sobering thought that those of our future colleagues, who are about to commence their professional education, will still be in active practice almost up to the middle of the new century. This would be quite unremarkable, if the first half of the 21st century could be assumed to be a period of universal stability, a period of little change. Unfortunately, this is unlikely. It would be quite unrealistic to presume that the next 40 or so years will see fewer changes

Address correspondence to: Professor C.E. Engel, Centre for Higher Education Studies, Life Long Learning, Institute of Education, University of London, 55–59 Gordon Square, London WC1H 0NT, UK. Tel: (44) 171–612 6363. Fax: (44) 181–977 2073. Email: charles engel@beeb.net

than the second half of the last century. Sir David Weatherall, Regius Professor of Medicine at Oxford University, wrote recently: ‘*Continuing change will be the constant in the next century*’ (1995). Indeed, there is every good reason to predict that change will continue to dominate the lives of all humanity and not least the lives and professional activities of all our future colleagues.

What responsibilities, therefore, should institutions of higher education accept in the face of this prospect of continuing change not only responsibilities for their students as future professionals, but also responsibilities for the society which their students will come to serve?

This paper reflects on these responsibilities of higher education in the context of continuing change.

The Need for an Ability to Adapt to Change

The ability to adapt to change will relate to:

- changes in the practice of health care;
- changes in the roles and tasks of health professionals; and
- changes that are likely to affect the wider social and environmental conditions on which human well-being depends.

Potential and Progressive Changes in the Needs of Health Care

Dr. Nakajema highlighted new diseases when he introduced the 1996 World Health Report:

In the past twenty years at least thirty new diseases have emerged. But initial optimism that they would be easily controlled led to fatal complacency. Matters are likely to worsen, with air travel posing a growing threat of spreading diseases between continents within days or hours.
(World Health Organization, 1996)

The 1997 World Health Report (World Health Organization, 1997) predicted that some 70 million would die of tuberculosis by the year 2020.

To this prediction should be linked the present trend of the continuing growth in the number of human beings who are forced to exist at a mere subsistence level. In addition, many parts of the world witness an increase in the number of elderly citizens that leads to an escalation of demand for health care services and a concomitant growing financial burden.

Table 1 illustrates an anticipated demographic shift even within a younger age group, and this in the context of the continuing growth of the world’s population.

Optimists may contend that further advances in medical science and technology will enable health care systems to meet the above challenges. Yet, we are already concerned with rationing access to health care, in one way or another.

Table 1. Some predictions for the first half of the 21st century

World population by 2050: 8 billion
Percentage of world population under 20 years of age:
40% in 1998
32% in 2050

Source: World Health Organization (1998).

Exciting achievements of medical science will inevitably call for increased funding, but financial constraints will lead to yet more ethical dilemmas.

The entire structure of the health care system is being affected by the imbalance between the power and promise of medicine and the finite nature of funds that can be made available to cover the growing cost. There will thus be an inevitable struggle between the ethics of the professions to care for individuals, and the priorities of public administrators to achieve optimal benefits for the population at large. These issues are likely to become even more complex through the international growth of a private health industry (Zarrilli & Kinnon, 1998).

The Above Aspects will Directly Affect the Health Professions and their Members

Planners of human resources for health care will need to consider just how many of each profession will be needed during the next 40 years or so. Therefore, how many should be recruited, selected and educated? The economic imperatives of educational institutions will need to be balanced against the cost to students and their career prospects, the cost to families and the long-term costs incurred by the community. Even now there are countries with an increasing number of doctors who are either *underemployed* or *unemployed*, while the cost of educating doctors continues to escalate. Will the new century be able to afford the present mix of health professionals?

Should educational institutions be more directly involved in the long-term research necessary for the planning of human resources for health care?

Such planning is likely to be complicated further by changes in the roles and tasks of members of the different health professions. In an increasing number of countries all health professionals are being educated at university level. A significant number earn their doctorates through research work to an extent where professional doctorates, e.g. D Nursing, are being considered as distinct from the PhD degree (White, 1999). In parallel with this development, changes in the law permit many of these professions to assume roles that used to be reserved for registered medical practitioners.

There is here a direct link with the influence of financial constraints on the health care system. Thus, for example, the insurance industry's aim to contain

cost has led the North American *managed care* system to make the role of generalists increasingly more important in relation to that of specialists.

All these trends and ongoing changes would seem to justify the imperative that educational institutions should adopt educational development for the ability to adapt to change as a key responsibility.

Implications of Concerns Beyond the Care of the Individual

There are other, perhaps wider, issues that go beyond the immediate, traditional concerns of health professionals. Three examples may illustrate these concerns. Rudolf Virchow, the father of modern pathology, wrote in his report on the 1847 typhus epidemic in Upper Silesia: *'The improvements of medicine will eventually prolong life, but improvement of social conditions could now achieve this result more rapidly and more successfully'* (Porter, 1997). The major part of one issue of the *British Medical Journal* (April 20, 1996) was devoted to the health professions' wider responsibilities – really a quite remarkable step into non-medical politics. One of the editorials (Smith, 1996) referred to a paper by Professor Graham Watt of Glasgow. He had explored the relationship between general poverty, morbidity and mortality in the city of Glasgow and in the better-off city of Edinburgh (Watt, 1996). The editorial commented:

What matters in determining morbidity and health in a society is less the overall wealth of that society, and more, how evenly wealth is distributed. The more equally wealth is distributed, the better the health of that society. One political implication is that the best way to improve health in a society might be to take measures to distribute wealth as equally as possible. Such measures would be more likely to be effective than measures that increase overall wealth, but also increase inequalities – exactly the measures advocated over the past 10–20 years in Britain, the United States and many other countries.

Why, asks the author, are doctors silent about the most powerful factors affecting the health of their patients – their socio-economic conditions? Health inequalities in Britain and some other parts of Europe have widened over the past decade as a result of economic policy. Such problems cannot be tackled by interventions targeted simply at individuals or communities. The solutions, the author says, lie in affluent and not in disadvantaged areas; and the incentives include avoiding the problems caused by the social and economic exclusion of a substantial proportion of the population. In particular, the author wants doctors to renounce their silence and start to speak up about the wider aspects and implications of poverty and deprivation.

The third example is from the Network's own journal, where Professor Max

Kamien from the University of Western Australia stated in the abstract of his paper on responding to society's needs (Kamien, 1996):

The task of general practice should go well beyond simply dealing with a patient's presenting complaint. That task must include the concept of acting as the patient's advocate with regards to health promotion, illness prevention and continuity of care; and then extending that care of the individual to the care of the community which general practitioners need to regard as their population at risk.

In 1985 Christine Ewan, Pro-Vice Chancellor for Health Sciences at the University of Wollongong, Australia, contributed the first major paper on social responsibility in medical curricula (Ewan, 1985). Since then, the World Health Organization has emphasized the importance of social responsibility in medical education (WHO, 1991), and Prosser (1995) has contributed a thoughtful extension to this concept.

The philosophy of the Network of Community-Oriented Educational Institutions for Health Sciences is based on the recognition that true health must include social and economic well-being within the community. Yet, the well-being of communities depends also on local, national, regional and even global economic, political and environmental conditions. This makes it necessary for higher professional education to be aware of what is happening across the world.

There is disturbing evidence that the living standard and health status of populations are increasingly threatened by depletion of irreplaceable raw materials, growing competition for limited water supplies, destruction of flora and fauna and desertification, as well as by pollution of air, water and land – with resultant detrimental influences on the global environment (Bruntland, 1987; WHO, 1992; McMichael *et al.*, 1996).

These problems are highly complex and interrelated. They are not amenable to short-term solutions. Numerous international conferences on the environment and on population growth seem to show that the mammoth task of preserving, and indeed, of enhancing the quality of life on this planet cannot be entrusted to politicians alone.

Implications for All Professions Everywhere

The challenge for *all* the professions in *all* countries is thus to collaborate with each other, in order to establish cause and effect and then to participate in developing and sustaining long-term and inevitably unpopular interventions.

Future architects, engineers, geographers, health professionals, lawyers, political scientists, sociologists and veterinarians, to mention but a few, will need to be able to accept proactive, interprofessional and intersectoral responsibilities for the benefit of society at large.

The challenge for institutions of higher education and their academics is, therefore, to prepare their students *to be able to participate in the management*

of change, as well as to be able to adapt themselves to change. This will call for the identification of the competencies that are needed for adapting to, and managing change, as well as the competencies required for interprofessional and intersectoral collaboration. Appropriate educational interventions can then be developed.

A First Step

Among the plans of the Network for the 21st century are three closely related programs that will initially involve its member institutions in all parts of the world. The first program is to focus on the generic competencies for adaptation to, and management of, change and how such competencies may be developed. The second program will aim to identify competencies that facilitate interprofessional collaboration and how these may be developed. The third program acknowledges the need to develop methods for the recognition and reward of creativity and effort in higher education, in order to ensure that academics are enabled to devote additional time and attention to such major educational challenges.

In conclusion, it may be appropriate to reflect on the unhappy fate of human values during the 20th century and the prospect that the 21st century may be equally unpromising. Adverse causes may include growing nationalism and political or religious intolerance. These tend to lead to armed conflict, mass migration and serious social destabilization.

There can be little hope for the preservation of human values, unless these values continue to be at the very heart of the philosophy of the caring professions.

Let this suffice as the reason that the health professions should be the first to accept the challenge of preparing its future colleagues to be able to adapt to change and to participate in the management of change.

Note

1. This paper is based on an Invited Address at the 1999 Biannual Conference of the Network of Community-Oriented Educational Institutions for Health Sciences, held in Linköping, Sweden, October 5–10, 1999.

References

- BRUNTLAND, G.H. (1987). *Our common future*. New York: United Nations.
- EWAN, C. (1985). Objectives for medical education: expectations of society. *Medical Education*, 19, 101–112.
- KAMIEN, M. (1996). Responding to society's needs: one criterion in evaluating the education of general practitioners. *Education for Health*, 9, 147–153.

- McMICHAEL, A.J., HAINES, A., SLOOFF, R. & KOVATS, S. (1996). *Climate change and human health*, WHO/EHG/96.7 Geneva: World Health Organization.
- PROSSER, A. (1995). *Teaching and learning social responsibility*. Canberra: Higher Education Research and Development in Australasia.
- SMITH, G.D. (1996) Editorial: Income inequality and mortality: why are they related? *British Medical Journal*, 312, 987–988.
- VIRCHOW, R. (1847). In R. PORTER (1997) *The greatest benefit to mankind: a medical history of humanity from antiquity to the present*. London, Harper Collins.
- WATT, G.C.M. (1996). All together now: why social deprivation matters to everyone. *British Medical Journal*, 312, 1026–1029.
- WEATHERALL, D. (1995). *Science and the quiet art: medical research and patient care*. Oxford: Oxford University Press.
- WHITE, J. (1999). Professional doctorates in nursing and midwifery: unwise indulgence or courageous coming of age? *Focus on Health Professional Education*, 1, 17–27.
- WHO COMMISSION ON HEALTH AND ENVIRONMENT (1992). *Our planet, our health*. Geneva: World Health Organization.
- WHO DIVISION OF DEVELOPMENT OF HUMAN RESOURCES FOR HEALTH (1991). *Changing medical education: an agenda for action*. Geneva: World Health Organization.
- WORLD HEALTH ORGANIZATION (1996). *World Health Report, 1996*. Geneva: World Health Organization.
- WORLD HEALTH ORGANIZATION (1997). *World Health Report, 1997*. Geneva: World Health Organization.
- WORLD HEALTH ORGANIZATION (1998). *World Health Report, 1998*. Geneva: World Health Organization.
- ZARRILLI, S. & KINNON, C. (1998). *International trade in health services*, WHO/TFHE/98.1. Geneva: World Health Organization.