

Editorial

Creating Health Professionals for the 21st Century

Rajeev Gupta

Editor, RUHS Journal of Health Sciences, Academic Research Development Unit,

Rajasthan University of Health Sciences, Jaipur, Rajasthan

In the 21st century world there are glaring gaps and inequities in health within and between countries.¹ This fact underscores our collective failure to share the dramatic health advances equitably.² At the same time fresh challenges loom. New infectious, environmental and behavioral risk factors have led to a variety of chronic infectious and non-communicable diseases due to rapid demographic and epidemiological transitions. Such transitions have also happened in India where over the last 25 years, non-communicable diseases have become the most important cause of mortality and morbidity.³ This change threatens health security for all. Health systems worldwide are struggling to keep up, as they become more complex and costly, placing additional demands on capacity of health workers.

Professional education has not kept pace with these challenges, largely because of fragmented, outdated and static curricula that produce ill-equipped graduates. The problems are systematic: mismatch of competencies to patient and population needs; poor teamwork; persistent gender stratification of professional status; narrow technical focus without broader contextual understanding; episodic encounters rather than continuous care; predominant hospital orientation at the expense of primary care; quantitative and qualitative imbalances in the professional labor market; and weak leadership to improve health systems performance.

The respected medical journal, *Lancet*, formed an advisory commission to address changes in health education for creation of health professionals empowered to tackle various health issues in their local and global context.⁴ The Commission called for a redesign of professional health education in view of the opportunities for mutual learning and joint solutions offered by global interdependence due to acceleration of flows of knowledge, technologies and financing across borders, and the migration of both professionals and patients.

The 20th century is characterized by three generation of health educational reforms. The first generation, launched at the beginning of the century taught a science-based curriculum. Around the mid century, the second generation introduced problem-based instructional innovations. A third generation is now needed that should be systems-based to improve the performance of health systems by adapting core clinical and professional competencies to specific contexts, while drawing on global knowledge (Figure).

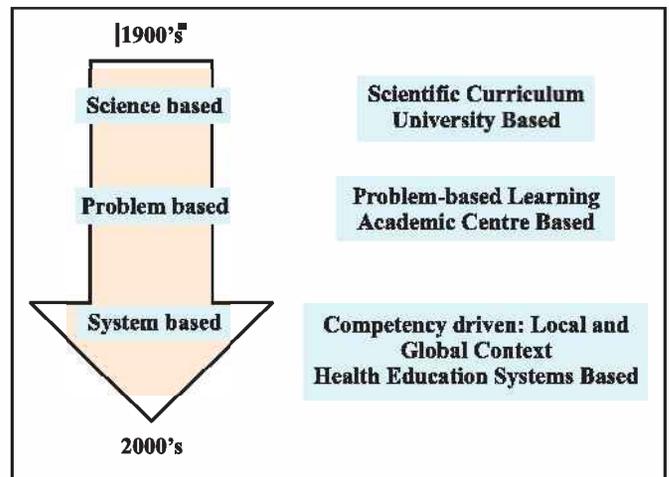


Figure: Three generation of health education reforms in global context. The figure is adapted from Frenket al.⁴

Unfortunately, we India are still mired between first and second generation educational reforms. To advance to third generation reforms, the *Lancet Commission* puts forward an innovative vision⁴: all health professionals in all countries should be educated to mobilize knowledge and to engage in critical reasoning and ethical conduct so that they are competent to participate in patient and population-centered health systems as members of locally and globally responsive teams. The ultimate purpose of any health educational system is to assure universal coverage of high-quality comprehensive services that are essential to advance opportunity for health equity within and between countries.

Realization of this vision of universal coverage of high quality comprehensive healthcare shall require a series of instructional and institutional reforms that are guided by two proposed outcomes: transformative learning and interdependence in education. Transformative learning is the highest of three levels of any educational system, moving from informative to formative to transformative. Informative learning is about acquiring knowledge and skills and its purpose is to produce experts in science of medicine, it is widely practiced in India. Formative learning is about socializing students around values, its purpose is to produce professionals competent in both science and art of medicine. Transformative learning is about developing leadership attributes, its purpose is to produce enlightened change agents. This type of learning builds on the previous two and involves three fundamental shifts; (a) from fact memorization to searching, analysis and synthesis of information for decision making; (b) from seeking professional credentials to achieving core competencies for effective teamwork in health systems; and (c) from non-critical adoption of educational models to creative adaptation of global resources to address local priorities. This category of health workers are far and few in India and should be developed if we wish to implement the universal health care model proposed by the World Health Organization and the Indian Government.

This transformative reform in health education shall require a series of enabling actions. These actions include:

- a) A broad engagement of leaders at all levels- local, national and global. Leadership has to come from within the academic and professional communities, but political leaders in government and society must back it.
- b) Present funding deficiencies must be overcome with a substantial expansion of investments in health professional education from all sources: public, private, development aid, and foundations.
- c) Stewardship mechanisms including socially accountable accreditation should be strengthened to assure best possible results from any given level of funding.

- d) Shared learning by supporting metrics, audit, evaluation and research should be strengthened to build up the knowledge base about what innovations work under which circumstances.

Let us not forget that the health professionals have made enormous contributions to health and development over the past century, but complacency will only perpetuate the ineffective application of 20th century strategies that are unfit to tackle 21st century challenges. There is a need for a global social movement of all stakeholders-educators, students and young health workers, professional bodies, universities, non-governmental organizations, international agencies, donors and foundations- that can propel action on this vision and these recommendations to promote a new century of transformative professional education. Such a vision has already been proposed by our university administration.^{5,6} The results would lead to more equitable and better performing health systems than at present with consequent benefits for patients and populations everywhere in our country and the world.

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