

INVITED ARTICLE

Education and Health Professionals

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Education and health go hand in hand. Evidence demonstrating the links is overwhelming. They go hand-in-hand in the drive to lift people out of poverty and give them the opportunity to develop their full human potential.
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Background

When mentoring post graduate students in the health arena, I find it valuable to refer back to the Flexner Report of 1910² and the developments in global health and medical services and education of professionals since then. Now with the publication of the Lancet Commissions report³ at the end of 2010 on the state of professional education and recommendations for the new century, it is vital that all education stakeholders understand the importance of this new study to global health for all.

The Flexner Report of 1910 on the education of health professionals supported the initiation of education reforms that powerfully shaped medical education, globally. The reforms provided for the integration of modern science in programs of study at university based schools, which are credited with endowing health professionals with the knowledge contributing to the doubling of the human life span during the 20th Century. 100 years on, despite quantum

advances in health, conspicuous inequalities however, continued within and between countries, highlighting a collective failure to share health development equitably. The new promise for health security for all, even in the developed world is beset by unresolved old challenges along with new challenges that need to be faced. Globally, health systems are under siege from *new infectious, environmental, and behavioral risks, at a time of rapid demographic and epidemiological transitions*; new infections, growing resistance to once wonder drugs and the consequence of re-emerging old disease threats, and ecological hazards and behavioral risks associated with globalization and global warming-growing affluence, diminishing rain forests and their potential for discovering new natural drugs, rising sea levels, and rapid demographic and epidemiological transitions. That and the graying of the population putting strains on the existing health systems for age related complaints, the rising expectations of a more aware population caused through

technological advances in communications, along with the rapid increase of cosmetic treatments. Health systems are becoming more complex and costly, and placing additional demands on health workers.

I would like to point out that this is a clear cut case of continuing with a once successful, *health for all*, paradigm without regular amendments applied with circumspection to take account of changing circumstances to stay in front of the curve; along with insufficient political will and leadership inertia to do so.

Past Century of Health Education Reforms

The Commission recognizes three generations of education reform over the past century:

1. The first generation, got under way at the start of the 20th century; taught a science-based curriculum: University based
2. Mid-century, the second generation established problem-based instruction: Academic centers
3. Now the third generation is required: systems based; to augment the performance of health systems through aligning core professional competencies to specific contexts, though drawing on global knowledge: Health-education systems

The Commission's vision is that globally all health professionals ought to be educated to mobilize knowledge and to employ critical reasoning and ethical conduct to gain the competence to play a part in patient and population-centered health systems as members of locally responsive and globally connected teams. The ultimate intention is to guarantee universal coverage of the high-quality comprehensive services, vital to progressing prospects for health equity within and between countries.

For the Commission's vision to become reality, medical schools and departments of public health must commit to structural changes for the education of health professionals if they are to prepare graduates for the challenges of the 21st century

Professional Education

The Commission recognizes that professional education, including professional health education, has not kept up with the rapidly changing world and the challenges of the 20th century and is not placed to overcome the new challenges of the 21st century without a drastic reform of education worldwide: contemporary education systems are *fragmented, outdated, and static curricula that produce ill-equipped graduates*. The main health education thrust has been, and still is, to preserve the status quo of the turf of the institutions and authorities concerned with health, education, and the law.

The problems in health education are widely considered to be systemic: A 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 labour market; and less than efficient leadership to improve health-system performance. Commendable efforts to deal with these weak points have mostly faltered, partially because of visible *tribalism* within professions—the inclination for different professions to act in isolation from or competition with each other. Health systems globally are hard-pressed to keep pace, as they become more multifaceted and expensive, placing further burdens on health workers.

Global Commission on Education of Health Professionals for the 21st Century

“Like never before, the public prominence of health in general and global health in particular has generated an environment that is propitious for change. Health affects the most pressing global issues of our time: socioeconomic development, national and human security, and the global movement for human rights. We now understand that good health is not only a result of but also a condition for development, security, and rights.”

Education of Health Professionals for the 21st Century: A Global Independent Commission

As more and more it has become apparent that a thorough and authoritative redesign of professional health education, equivalent to the motivated work of a century ago, was necessary. Accordingly, the Lancet Commissions, an independent *Global Commission on Education of Health Professionals for the 21st Century*, was set up in January 2010. The commission consisting of 20 professional and academic leaders from different countries assembled with a stated aim to create a shared vision and strategy for postsecondary education in medicine, nursing, and public health; extending *beyond the confines of national borders and the silos of individual professions*. Their report *Global Commission on Education of Health Professionals for the 21st Century* was published online On 29 November 2010 in *The Lancet*.

According to the commissions report substantial global reform was considered necessary to revamp the education of physicians and other healthcare workers in view of the opportunities for mutual learning and joint solutions offered by global interdependence owing to the speeding up of flows of knowledge,

technologies, and financing across borders, as well as the migration and transmigration of both professionals and patients; to build on and matching the ambitious work of a century ago.

The Commission adopted a systems approach, with a global outlook, along with a multi-professional outlook. This wide-ranging agenda considered the relationships between education and health systems. The approach centers on people as the main drivers of needs and demands in both systems. By interacting with the labour market, the provision of education services produces the supply of an educated workforce to meet the demand for professionals to work in the health system. To have a constructive effect on health outcomes, the professional education subsystem must design new instructional and institutional strategies.

The commission found that world-wide 2,420 medical colleges, 467 schools or departments of public health schools, and an indeterminate number of postsecondary nursing institutions train about 1 million new health professionals, annually. Four countries - China, India, Brazil, and the United

States — each have more than 150 medical schools, whereas 31 countries are without any medical college and 44 countries only have 1. This inequity underlines a prominent variance between the quantity of institutions, population size, and disease burden:

- World population is weighted towards Asia
- Global disease burden is heavily concentrated in Africa
- The distribution of medical schools does not match well with the number of graduates.

Other inconsistencies highlighted in the report are:

The problems are systemic: mismatch of competencies to patient and population needs; poor teamwork; persistent gender stratification of professional status; narrow technical focus without broader context-

tual understanding; episodic encounters rather than continuous care; predominant hospital orientation at the expense of primary care; quantitative and qualitative imbalances in the professional labour market; and weak leadership to improve health-system performance.

While high-income nations struggle with rising costs and shifting demographics, poorer countries fare even worse. A large percentage of the world's 7 billion inhabitants find themselves ensnared in health settings of a century ago.

The Commission's Report finishes off by advocating embracing a third generation of systems-based reforms of instruction and education based on transformative learning and interdependence in education for advancing equity in health around the world.

Transformative Learning and Interdependence

	Objectives	Outcome
Level 3: Transformative	Leadership attributes	Change Agents
Level 2: Formative	Socialization	Professionals
Level 1. Informative	Information, skills	Experts

Source: *Lancet Commission, November 2010*

Transformative learning is at the highest level of three levels of learning:

1. *Informative learning* is the base level of learning with an objective to attain knowledge and skills; its outcome is production of experts.
2. *Formative learning*, the second level, concerns socialising students through instilling values; its outcome is to generate professionals.

3. *Transformative learning* concerns developing leadership characteristics; the objective being to produce enlightened change agents.

Effective health education builds each level on the preceding one, involving three fundamental shifts:

1. Commencing from fact memorisation to critical analysis that can channel the facility to seek, analyse, evaluate, and synthesise information for decision making.

2. Move from seeking professional qualifications onto attaining core competencies for effective teamwork in Health Systems.

3. Continue on from noncritical adoption of educational models to creative adaptation of global resources to address local priorities—think globally adapt and work regionally.

Interdependence is a vital element in a systems approach since interdependence draws attention to the ways in which diverse mechanisms interrelate, without presuming that they are one and the same. Interdependence in education moreover entails three shifts from:

1. Isolated to complementary education and health systems;
2. Stand-alone institutions to worldwide networks, alliances, and consortia; and
3. Self-generated and self-controlled institutional assets to exploiting global flows of educational content, pedagogical resources, and innovations.

Summary of the Lancet Commission's Independent Global Report

In Short, the Commission's vision is that globally all health professionals ought to be educated to mobilize knowledge and to employ critical reasoning and ethical conduct to gain the competence to play a part in patient and population-centered health systems as members of locally responsive and globally connected teams. The ultimate intention is to guarantee universal coverage of the high-quality comprehensive services, vital to progressing prospects for health equity within and between countries.

The report makes a rational case for reforms in health professional education—both academic and

institutional; aligning national reform efforts through joint planning, particularly in the education, health, and law sectors, embracing all stakeholders in the reform process as well as nurturing global collaborative networks for mutual benefit for health for all—globally, regionally, and locally. In other words, planning professional education with a global outlook; gaining synergistic benefit from many differing perspectives and alternative solutions for problem resolution; cooperative sharing of information, knowledge, experiences, technology, etc., for mutual benefit and the common good; and then adapting it with circumspection for it to be appropriate for regional and local environmental conditions.

The suggestion is for the establishment of joint planning mechanisms in every country to engage vital stakeholders, in particular the education, health, and law ministries, professional associations, and the academic community, to avoid fragmentation in assessing national circumstances, setting priorities, determining policies, monitoring change, and harmonising supply and demand for health professionals in order to meet the health needs of the people. It calls for the endorsement of inter-professional and trans-professional education that will break down professional silos while enhancing collaborative and non-hierarchical relationships.

For the Commission's vision to become reality, health, education, and law ministries must commit to structural changes for the education of health professionals if they are to prepare graduates for the challenges of the 21st century. This of course is not an easy task because of the entrenched agendas within silos of authority to protect their turf and further entrench the power of the status quo. The present

situation as reported in India by The Hindu news paper recently is evidence of to this for India⁴:

The report on “Education of Health Professionals For the 21st Century” comes at a time when the Ministries of Human Resource Development (HRD), Health and Law are engaged in a turf war, all three having drafted Bills to regulate professional education.

The task force set up by the HRD Ministry has drafted a Bill for establishing a National Commission for Higher Education and Research (NCHER) that would function as an overarching regulatory body replacing all existing regulatory bodies in medicine, engineering, law and other disciplines. The only exception is education related to agriculture, a State subject.

Refusing to part with medical education, the Health Ministry too has drafted a Bill for setting up a National Commission for Human Resource in Health (NCHRH), which would regulate medical education that is linked closely to hospitals. The Law Ministry has finalised a Bill for setting up a regulatory authority for legal education.

The NCHER proposes that universities be made more autonomous, with the responsibility for academic content restored to them. The task force has revised its draft three times and held consultations in as many as 12 locations, and has taken the view of the State governments on board. It seeks to promote autonomy and institutional accountability and set standards of academic quality for accreditation.

I believe that the Lancet Commission’s report needs to be critically examined alongside the whole question of education reform in Thailand, not only for health professionals. Education reform has been

tardy to date and many of the reforms envisioned in the 1997 Thai Constitution and enacted into law by the National Education Act 1999, was to set the foundation for reform efforts to prepare the people for new social requirements: Encourage Thais to develop towards more analytical and independent thought. As we learn from the report, currently there are three levels of learning:

1. *Informative learning*: the base level: production of experts.
2. *Formative learning*, the second level: to generate professionals.
3. *Transformative learning* concerns developing leadership characteristics; the objective being to produce enlightened change agents.

Currently Thai people, in general, are languishing at the base level of learning: Informative learning.

Thai Education Reform

The current Thai education reform rhetoric is aimed at elevating Thais from the rote learning era of informative learning (to gain knowledge and skills to produce experts and thus *gofer followers who help maintain the status quo*), to place them at the second level, Formative learning: Socialising students through instilling appropriate values to generate professionals. It is quite evident that the transformative forces which has produced globalization, has overtaken the current Thai education reform paradigm, even before it has been fully implemented: It is past its use by date.

The first thing all Thai education stake holders must do, in the education of professionals, is to expunge the tardiness that has all but stalled a decade and a half of reform implementation and also to insist

on garnering the political will to take the appropriate actions to fully implement education reforms enshrined in the 1997 Thai Constitution and the National Education Act, 1999—the country's master legislation on education to provide the framework for education reform.

The current and future leaders of education reform should not waste time on seeking out scapegoats for the past failures (*the past is gone, you can only learn lessons from the past: you cannot change the past*), but move forward as swiftly as the leaders' and stakeholders' capabilities allow to fully implement the legislated reforms; as a matter of urgency. At the same time, all stakeholders must rethink the paradigm of Thai education reform to not only include the first two levels of learning, but also include the third and currently highest level of learning: *Transformative learning*; developing leadership characteristics to produce enlightened change agents the country so sorely needs. From my experience in rural, community, and health development for the common good, to be effective:

- Always start developments (or reforms) from a new beginning—this can be influenced by the past, but must be adjusted with circumspection and using the latest available knowledge for the target situation.
- Start from what the people already know, and move forward from there keeping in mind the limitations of the available resources, as well as the desired outcomes.
- Always keep the expectations for the outcomes within the boundaries of well reasoned reality: Constantly missing over ambitious expectations for targets dates and outcomes can quickly kill off motivation, even for the most ardent followers.

It is critical that in all upcoming planning for professional education leaders in Thailand needs to heed the message in the Lancet Commission's report that planning professional education should be approached with a global outlook for the common good. Also stakeholders need to be cognizant that the whole idea of producing transformation agents is predicated on building each new education level on a higher plane using the preceding level as the sound foundation. No level can be by-passed without jeopardising the desired outcomes; the goals of each level must be attained first to be the sound base for striving to attain the next highest level. No level can be skipped for the sake of expediency or political advantage (by populist programs for instance). The ultimate aim is the generation of systems-based reforms of education based on transformative learning and interdependence in education that is required in an interdependent globalizing world; and for our case here, advancing equity in health; locally, regionally, and globally for the common good.

Many leadership gurus enlighten us that long term success of any individual is 20% dependent on that individual's knowledge and skills, while the other 80% is dependent on their leadership competencies (the 80/20 Law of Leadership). If there is any credence in the 80/20 Rule, then leadership has a prominent role to play in formal universal education. Why then should our education in the 21st Century still only work on the 20 side of the 80/20 equation? The 21st Century demands that we are also equipped with the competencies on the 80 side of the equation, at least at a basic level. We can understand that everyone cannot be a CEO of a Fortune 500 company, *but we can at least be the CEO of our own life.*

Conclusion

Albert Einstein, arguably the most brilliant thinker of the 20th Century, enlightened us with this wisdom that we should all take time to ponder:

“You can never solve a problem on the level on which it was created.”

It is today’s education paradigm in many countries that is the root cause of the low productivity, inequities (including access to health, education, and health services), divisiveness, and inept problem solving abilities that has placed contemporary society where it is today, including Thailand; the quality and effectiveness of education outcomes remains stuck at the same level that caused the problems. I heartedly concur with Einstein that these societal problems need to be solved at a higher level of mindset than they were manifested at. Today’s problems (including problems associated with climate change adaption; aging societies; societal inequities; socio/political turmoil; diminishing non-renewable natural resources; escalating crime rates; international terrorism; rapid population growth; poverty.) need to be solved at the transformative level of mindset, from the grass roots up.

Transformative education, such as *the Leader in Me*⁵ programs initiated in the USA and now spreading globally, provides a form of this higher level of thinking (transformative education); and as a bonus, raises the bar on academic achievement, student behaviour, sense of responsibility, improved school culture, and education systems efficiency and effectiveness that can only be seen as positive outcomes helping to raise

industry and business profitability through innovative leadership for efficiency and effectiveness, as well as increase broad-based leadership for the common good in society. A win-win proposition all around for the common good.

Today graduates in many countries are often seen and are treated as older children devoid of the appropriate academic, social, and life skills savvy to guide them into and through the everyday life challenges they face and must overcome in their new world; at the dawn of the rest of their life. The current informative (Level 1) and formative (Level 2) education can at the best produce graduates who may be appropriately equipped academically, but are only dependent *entry level employees and professionals*, not imbued of the leadership skills and competencies to successfully meet the challenges of the reality of our changing and globalizing world; that is, as independent individuals accepting responsibility for their life choices, tolerant of differences, and capable of interdependently working in collaborating teams for mutual benefit (Level 3); empowered by transformative education.

If the UN considers that everyone has the right to equal access to effective education, then why do we make available, through our formal education systems, only 20% of the education we need to effectively function in and contribute to society? Should not everyone be given the opportunity to be the CEO of their own lives? It is proving to be doable, so why do we not do it? *The 21st Century demands that we neglect transformative education only at our own peril.*

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