There has been an exponential growth of knowledge in the biomedical field over the last fifty years. This has resulted in major changes in the practice of medicine which have in turn created a number of challenges for medical education.

The following chart outlines some of the consequences of exponential growth of knowledge.

The most obvious outcome is the fact that now it is impossible for an individual to know and so impossible to teach everything. The issue facing undergraduate medical educationalists is what should be included in the undergraduate curriculum and what should be the rationale for its inclusion in the curriculum.

Another outcome of the exponential growth is the need for individuals to specialise in a specific field. Hence the growth of specialities and sub specialities, which is likely to continue. A parallel development to specialisation has been the emergence of a tertiary care hospital to cater to the needs of specialist practice. This has resulted in a growing diversity between medical practice within tertiary hospitals and outside tertiary care hospitals.
Till recently hospitals were for the care of the poor, all who could afford were treated at home. With advances in surgical practice some hospitals started providing facilities for surgery and a degree of hierarchy in the classification of hospitals appeared. Since 1960’s or so rapid technological developments have led to the emergence of a tertiary care hospital designed to care for the seriously ill. These ‘tertiary care’ hospitals are equipped with high-tech diagnostic and support services (MRI, CAT, Intensive care units etc) and are staffed by specialists. For these reasons the practice of medicine within a tertiary care hospital and practice of medicine in primary care settings have become very different and continue to diverge from each other.

In Pakistan the undergraduate medical students get their entire clinical training in attached tertiary care hospitals. Since the majority of MBBS graduates are required and will be working outside tertiary care hospitals, there is a growing mismatch between the undergraduate training in tertiary care settings and the needs of the health system. The present curriculum in Pakistan is not responsive to the larger public health issues facing Pakistan.

One reflection of this mismatch is that when we compare the Health Indicators of Pakistan with our neighbouring countries, Iran, Saudi Arabia, India, Bangladesh and Sri Lanka, ours are among the poorest. I believe the mismatch mentioned above is partly responsible for it. Our medical graduates have no exposure or training in dealing with promotive and preventive issues which can only be learnt by working in Primary Care settings.

It is imperative that if the majority of the class will eventually work outside a tertiary care hospital, then part of their clinical training should also be in Primary Care settings outside the tertiary care hospitals.

This brings me to the question ‘what are the competencies that a fresh graduate should have?’ I start with the premise that one of the main -if not the only- purpose of producing MBBS graduates is to improve the health status of Pakistanis.

If the above premise is accepted, then the focus of the MBBS curriculum should be on “What are the competencies that a fresh MBBS graduate should have to meet the HEALTH needs of Pakistan”. My emphasis is on the word HEALTH and not MEDICAL. By doing so, I wish to draw attention to the fact that with much better understanding of the causes of disease we are now in the position to prevent or at least decrease the impact- of about 75% of the diseases that we suffer from.

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<th>FAMILY MEDICINE</th>
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<td>• Continuity</td>
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<td>and curative</td>
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- Continuity
- Holistic-comprehensive
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- High technology
- High cost
Globally, there is no consensus as to what kind of training is required to make a good doctor or what kind of students should be selected that would make a good doctor. However, there is consensus on the challenges that health professions face worldwide, particularly in developing countries including Pakistan.

As emphasized by the Alma Atta declaration of 1978, the ‘Medical’ profession is now expected to help keep the community healthy. The historical role of treating the ill who seek the help of the profession has been widened to encompass the well-being of the community. The recent report of the Lancet Commission on “Health Professionals for a New Century: Transforming Education to Strengthen Health Systems in an Interdependent World” (published online November 29, 2010. www.thelancet.com) outlines the need for producing Primary Care Physicians conversant with meeting the challenges of healthcare and not only medical care.

**The Way Forward**

There is an urgent need for the profession as a whole and the faculties of medical colleges in particular to develop a consensus on:

(i) Outcomes that will prepare graduates to meet the growing challenges posed to health professions globally and locally.
(ii) Deriving learning objectives that lead towards achieving the desired outcomes.
(iii) Accepting the challenge of exponential growth of information by designing a curriculum based on integration of basic and clinical sciences.
(iv) A curriculum that focuses on health promotion and preventive aspects
(v) Student-centered learning methods that are based on adult learning theory and will produce lifelong learners.
(vi) Adequate and balanced training of medical students in primary, secondary, and tertiary care settings.
(vii) Training students for holistic care that focus on continuity of care to individuals and families in primary care settings.
(viii) Creating a conducive environment that will foster lifelong self-learning skills.
(ix) Fostering empathy and ethical values.