

16th October, 2007

Dear Mr. Prime Minister,

The quality, the quantity, distribution and availability of human resources for the health sector in India at present, need to be improved substantially to deliver care-driven, rural oriented and equitable health services. Over the years, health related education and training has become more urban oriented, doctor-centric and technology-driven. The environment of medical education needs to be both nationally sensitive and globally competitive. To realize these objectives, our medical education system needs radical reforms.

The National Knowledge Commission (NKC) therefore considered it imperative to carry out a comprehensive appraisal of the system. For this purpose, we constituted a Working Group which included some of the most distinguished members of the medical profession in India, chaired by Dr. Sneha Bhargava, former Director, AIIMS. The names of the members of the Working Group are listed in the annexure. Based on the inputs provided by the Working Group and our consultations with concerned stakeholders, we recommend the following:

1. **Regulation and accreditation**

- *Regulation:* At present, medical education in India is regulated by the Medical Council of India (MCI). This system of regulation is neither adequate nor appropriate to meet the needs of the profession. Therefore, in conformity with our recommendations on Higher Education, we propose constitution of a Standing Committee within the structure of the Independent Regulatory Authority for Higher Education (IRAHE). The primary function of the Standing Committee will be to ensure that medical practice and teaching are updated and revised regularly and minimum quality standards are maintained. The members of the Standing Committee would include faculty from recognized universities, practicing physicians, members of civil society, students and a director from autonomous institutions representing educators. The Chairman and the members of the Standing Committee would be accountable to IRAHE. The Standing Committee would look into manpower planning and development based on disease-profile, doctor-population ratio and skill-mix ratio.

- *Professional Councils:* The Indian Medical Council Act should be amended such that MCI functions only as a professional association, with powers to conduct nationwide examinations, and to provide licenses for those who wish to join the profession. Similar changes are needed for all the other Councils viz.

Nursing Council, Pharmacy Council, Dental Council and Rehabilitation Council.

▪ *Accreditation:* IRAHE should be empowered to license suitable agencies for accreditation. Accreditation agencies could award different degrees of accreditation, such as “Full”, “Provisional” or “On Probation” and have the power to de-recognize. Institutions would have to ensure transparency in their admission processes, able and responsible faculties, a multidisciplinary academic learning environment, transparency in assessment of students and close linkages with regional health care and delivery systems, in order to be accredited.

▪ *Admission:* Policies of admission and fee structure of private colleges have to be regulated, not only to stop them from becoming sources of political and financial power but also to arrest falling standards. There should be only one All India Common Entrance Test for all students who would like to get admission to Self Financing Medical Colleges. Since the CBSE conducted examination for the 15 % All India quota in Government Medical Colleges is taken by a very large number of students, this would appear to be the ideal examination whose ambit can be expanded. All self-financing Medical Colleges should announce their fees in their prospectus so that students can make their choice for admission. Information Technology should be used to increase transparency and efficiency in the admission, examination, administration, teaching, content delivery and other related processes.

2. **Quality**

▪ *Curriculum:* All institutions must constitute Curriculum Committees that plan curricula and instructional methods, which are regularly updated. The structure and composition of the curriculum must describe the content, scope and sequencing of the courses, including the balance between core and optional courses. Integration of ICT in the learning process is essential. Incorporating new skills like management, disciplines like health economics and frontier areas like bioinformatics should be considered.

▪ *Standards test:* An independent and standardized National Exit Examination at the end of 4 ½ years of study, is essential to conduct a national level assessment of skills and knowledge. The National Exit Examination could be conducted immediately after the University examination, and would also serve as a postgraduate entrance exam.

▪ *Internship Assessment:* The internship year must be assessed to ensure skill development. The current practice of students continuing to study in the internship year without going to clinics needs to be addressed. There must be compulsory rotation from the teaching hospital to the community and district hospital during the internship period. Duration of the term in the district hospital should be 6 months, in the Community Health Center 3 months and in the tertiary care hospital the remaining 3 months. Each intern should be assigned a “mentor” at the district hospital and the credits should be based on the assessment by the mentor. The entrance to postgraduate programs should be based on a summation of the pre & post internship examinations.

- *Continuing Education:* There is a need to revamp Continuing Medical Education (CME) based on distance learning. All professionals should be required to undergo a re-certification process every five years, which can be evaluated by credits earned through CME. ICT can be used extensively to provide CME at the convenience of the learner.

3. **Faculty Development**

- *Teaching:* Attracting and retaining quality faculty should be accorded top priority. Measures such as opportunities to attend international conferences regularly, sabbaticals, dual appointments, rewarding research, fast-track promotions, and dissociating remuneration from government pay scales should be explored. All institutions must clearly lay down exact definitions of what constitutes conflict of interest for faculty members in public medical colleges, who have a private practice in addition to their official duties, and receive a full time teacher's salary. Those who flout these regulations should be penalized.

- *Research:* With a view to encouraging research in medicine, a Mentored Medical Student Research Program should be set up as a catalyst to introduce medical students to a potential career in patient-oriented/ community-oriented research including interdisciplinary research. Two points of entry into PhD programs should be considered: one after MBBS and another after MD depending on the student's interest. The government should facilitate setting up of research centers in medical colleges. Validating Indian Systems of Medicine using bio-sciences tools should form an integral component of the research effort.

- *Training:* Five Regional Centers for teacher training/ faculty development should be set up so that teachers from the outlying regions can be sent to these centers periodically for up-gradation of their teaching skills.

4. **Post graduate education**

- *General Physicians:* The medical profession needs to be structured like a pyramid with the base made up of general physicians. At present there is little if any space for such doctors in post graduate courses. Therefore, we suggest that adequate representation should be given to general physicians while carrying out expansion of post graduate seats such that fifty percent seats are reserved for general physicians. New streams for post graduation should be looked at based on needs.

- *Admissions:* Admission to post graduate courses should be done on the basis of credits received in the National Exit Examination and pre and post internship clinically oriented exams after internship. There is a need to reserve post graduate seats (upto 20% of total available seats) for graduates who have worked in rural areas for at least 3 years.

5. **Regional balance**

- *Location priorities:* The number of medical colleges in relation to population in some states is much higher than in other states. The Central Government should aid new colleges in these states to address this regional disparity. For instance, north eastern states require urgent attention in this context. The Central

Government can develop a list of priority sites for establishing new colleges where the impact of new clinical facilities would benefit the surrounding rural population.

- *Role models:* Further at least one institution should be identified in each State that can serve as a center of excellence and role model for the other institutions of the state. These institutions should have state-of-the-art infrastructural equipment such as research laboratories, teacher training facilities, and libraries, as well a talented faculty of adequate strength to act as a common resource and also to serve as a benchmark of excellence.

Medical education cannot be standalone. It requires support in the form of trained nurses, pharmacists, paramedic workers. It must all also serve the essential purpose of delivering health care to the people. Therefore, we also set out some recommendations on education for supporting services and public health.

6. **Education for Support Services**

- *Nursing:* We need to create additional capacity for training nursing staff. In addition, every district hospital should have attached to it a nursing school, which offers diploma in nursing specifically to operate primary health centers as nurse practitioners. A career growth pathway should be ensured for nurses after a specific period of primary health care service. For graduate nurses in city hospitals, specialized courses for family nurse practitioners, nurse anesthetists and in areas of tertiary care are recommended.
- *Pharmacy:* Pharmacy education should be popularized and the number of seats for pharmacy education should be increased substantially. Gradual phasing out of untrained pharmacists should be considered.
- *Paramedics:* The role of Paramedic workers should be expanded. A Paramedical Council needs to be immediately established, which would prepare training programs for multi skill and specialty technicians and oversee their delivery and quality. Paramedics, such as compounders, dressers, and laboratory technicians can also perform public health functions, such as health education, providing immunization, and first aid. Such a health worker could be trained through vocational training at the higher secondary level followed by a one year diploma. Career paths should be built into their service in order to retain them because international demand is high.

7. **Public Health**

- *Education:* A three tiered structure consisting of a 1 year diploma course, a 3 year B.Sc course and a 3 year Masters course may be introduced. These programs can be attached to departments of Community Medicine in all medical colleges for providing hands on training. All universities, all district hospitals and the Public Health Foundation of India can run them.

■ *ASHA*: The role of Accredited Social Health Activists (ASHA) needs to be re-conceptualized within this framework, and ASHA must be viewed as an accessible and effective health worker. The training period of the ASHA needs to be lengthened from its current duration. Steps should be taken to review the system of remuneration and improve the working conditions of the ASHA workers.

NKC believes that traditional systems of medicine have a great potential in addressing the need of health services in the country especially in the rural areas. Recommendations on education in traditional medicine systems will be sent in a separate letter.

We urge you to initiate action on our recommendations to ensure broad based reforms in medical education with a view to delivering quality manpower to provide substantially improved healthcare services to the common man, urban or rural. This is essential to continue our economic growth and improved quality of life.

We look forward to being involved in consultations for the speedy implementation of these recommendations.

Thank you and warm personal regards,

Sam Pitroda,
Chairman, National Knowledge Commission

Copy to:

1. Dr Montek Singh Ahluwalia, Deputy Chairman, Planning Commission
2. Sh. Arjun Singh, Minister for Human Resources Development
3. Dr. A. Ramadoss, Minister for Health and Family Welfare