

MEDICAL EDUCATION IN ARUNACHAL PRADESH - EMERGING ISSUES RELATED TO ACCESS, GROWTH & EXPANSION AND AGENDA OF HEALTH SECTOR REFORM

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ABSTRACT

Context: *The health care sector is both labour-intensive and labour-reliant, and the delivery of quality health care services is strongly dependent on having enough well-trained health professionals. This is supported by medical education system. India is one of the largest networks of medical schools in world, characterized with uneven growth. But, Arunachal Pradesh is still deprived of Allopathic Medical College, depriving the state of Medical Education within the State.*

Aims: *This study explores the existing major issues and challenges effecting medical education in the state. It covers the issue of access, growth and expansion, and medical education in agenda of Health Sector reform.*

Settings and Design: *This paper on higher medical education in Arunachal Pradesh is a working paper and a part study of the researcher's ongoing research thesis entitled "HRM in Public Health Sector in Arunachal Pradesh-A new reading in health sector milieu, regarding physicians in rural and remote areas."*

Methods and Material: *The research is based on the primary data with flexibility in selecting key informants (KIs). Study was done from the period of April to September 2011. The other methods utilized were self-in-depth observation, review of official documents and articles.*

Results: *Access of Medical Education primarily is due to the lack of Medical Schools. Growth and expansion of medical education is still in infancy. Up-gradation of hospitals for subsequent establishment of medical college is in agenda.*

Conclusions: *The most important aspect of medical education presently is establishment and development of Medical institutes to give an access in the state.*

Key-words: *Medical Education, Arunachal Pradesh, Medical Colleges, Physicians, human resource for health.*

INTRODUCTION

The Government of India recognizes Health for all as a national goal and expects medical training to produce competent "Physicians of First Contact" towards meeting this goal. However, the medical education and health care in India are facing serious challenges in content and competencies (MCI, 2011). Based on this, it is apparent that the human element in an organisation is the most important element in achieving the organisational goal. A strong human infrastructure is fundamental to closing today's gap between health promise and health reality and anticipating the health challenges of the 21st century (WHO, 2006). The

early decades of the 21st century are considered to be the era of human resources for health. The health care sector is both labour-intensive and labour-reliant, and the delivery of quality health care services is strongly dependent on having enough well-trained health professions to meet patient needs and expectations. The need for reaching healthcare service needs wide coverage of human resource for health, especially the physician's cadre, to all corners of the country. Wide network of graduate doctors in the country needs wide spectrum of medical educational system support in the country. The medical education system in India is one of the largest and today, India has the highest number of medical colleges in the world. According to the Medical Council of India, it consists of 335 medical colleges spreads all over India, producing 40335 graduate doctors and many as 10,500 post-graduates each year. In the past few decades, India is facing a rapid growth of Medical colleges in public and as well in private sector, resulted in intake of more students.

Along with the encouraging story, the proportion and promotion of Medical Colleges in the underserved areas of the country is a matter of concern. Medical education to serve the community in Arunachal Pradesh is still in infancy, characterizing with absence of Allopathic Medical College, results in depriving Medical Education for undergraduate studies within the geographical boundary of the State.

From the statistics it is observed that the aggregate number of colleges/ seats in the country is not inadequate. However, a very large number of them are concentrated in the six states of Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, Kerala, and Gujarat. These States cover about 63% of the total number of colleges and 67% of the number of seats. In contrast to this, a disproportionately small number of colleges/seats are located in the Empowered Action Group States and the North Eastern / Hilly States 20% of the aggregate number of colleges and 18% of the seats in the case of the Empowered Action Group States and 3% of the aggregate number of colleges and 3% of the seats in the North Eastern /Hilly States. The unbalanced regional distribution of the medical colleges and seats has certain adverse implications. (MoHFW, 2011).

THE STATE AND HEALTH SYSTEM

The state of Arunachal Pradesh popularly known as "The land of rising sun" is situated in the north eastern part of India covering a total land area of 83,743 sq. km., the largest amongst NE States. It has a total population of 10, 91,117 with an average population density per square kilometer of 13 persons. Due to its peculiar topography and difficult terrain, there is widely dispersed settlement pattern of the population that applies to both rural and urban areas. The rural population constitutes 79.59% and the urban only 20.41 %. 0-6 yrs population is 18.33% in which male constitute 17.77% and female 18.96% and 67.77 % of total population comprises of Scheduled Tribes (STs). Sex ratio of the state is 901 females per 1000 males as per census 2001. The total literacy rate of the state is 54.74% with a male literacy rate of 64.07% and female literacy rate of 44.24%. The per capita income (97-98) of the state is Rs. 13424. (Source: Census 2001).

The health system in Arunachal Pradesh is still in a poor situation and this is traceable to several factors, especially the gross under-infrastructure of the health system with shortage

of skilled medical personnel at the primary health care level. Despite the vast improvement in the establishment of primary health infrastructure, several parts of the state continue to suffer from lack of access to primary care services, particularly those in the poorer hilly tribal regions. Physical access had always been a major issue affecting in the utilization of health services. Arunachal Pradesh health care systems have been subjected to many changes since its creation. Over the last decade, a series of reforms have been undertaken. The major difficulty in providing the medical and health services are due to the hilly and inaccessible terrain and lack of adequate human resources. The beginning of the health services was more difficult decades back in the absence of communication facilities and trained personnel who have to serve in the interior places of the state. However, Arunachal now a day, has changed its look in public health services and developed a wide network of public health services. Public Health department of the state is now providing integrated services of - preventive, curative and health promotional services, with its resource of public health delivery system. The state public health delivery system is based on the three tiers that are in primary, secondary and tertiary health care system. Public hospitals in Arunachal Pradesh have to behave and function in accordance with the government's administrative and financial laws issued by specific Government of India and Government of Arunachal Pradesh. With the network of the public hospitals, the State government is responsible for managing and delivering health services, including some aspects of prescription care, as well as planning, financing, and evaluating hospital care provision and health care services. As on March 2010, Public Health facilities are the back bone of health delivery and family welfare services, as private hospitals are not available. Catering to the health and family welfare needs of the people there are 2 General Hospitals at Naharlagun and Pasighat, 13 District Hospitals at Tawang, Bomdila, Seppa, Ziro, Daporijo, Along, Yingkiong, Roing, Anini, Tezu, Changlang, Khonsa and Hawaii, 44 Community Health Centers (CHCs), 116 Primary Health Centers (PHCs), 592 Sub-Centers (SCs), 44 Homeopathy Dispensaries and 10 Ayurveda Speciality Clinic (Source: AP State PIP, NRHM 2010-11). According to Indian Health profile 2007, as on 1.1.08 the state has 405 allopath doctors in position serving 2923 populations per doctor, which is far below the recommended norms of 1:300 by WHO. As per State Programme Implementation-NRHM, 2010, Govt. of Arunachal Pradesh, there are 405 Medical Officers in the state including 82 AYUSH Physicians. There are 459 nos. of Medical Officers including specialist.

Table : 1: Public Health Facilities in Arunachal Pradesh	
Health Facility	Nos.
General Hospital	2
District Hospital	13
Medical College Hospital	0
Urban FW Centres	4
CHC	44
PHC	116
Subcentre	592
Ayurvedic Dispensary	10
Homeopathic Dispensary	44
(Source: AP State PIP, NRHM 2010-11)	

ABOUT THE STUDY- SUBJECTS AND METHODS

This paper on higher medical education in Arunachal Pradesh is a working paper and a part study of the researcher's ongoing research thesis entitled "*Human Resource Management in Public Health Sector in Arunachal Pradesh-A new reading in health sector milieu, regarding physicians in rural and remote areas.*"

The research is based on the primary data as collected with flexibility in selecting key informants (KIs). This part of study was done with in-depth interview with open ended questions with key officials of state level from the period of April 2011 to September 2011. The other methods utilized were self-in-depth observation, review of official documents and articles.

The results of research findings with an exploration of the three emerging issues related to Access, growth & expansion and agenda of health sector reform of Medical Education related to graduate level doctors in Arunachal Pradesh are highlighted and presented in brief manner.

RESULTS

Emerging issues of Medical Education in Arunachal Pradesh:

This study put an attempt to explore the existing major issues and challenges effecting medical education in Arunachal Pradesh. It covers the issue of access, issue of growth and expansion and issue in agenda of health sector reform of medical education regarding undergraduate education for doctors.

1. Access of Medical Education :

- a. Professional Training Institutes:** Arunachal Pradesh is lagging behind in the field of medical education in comparison to other states of the country. Production of the graduate doctors in comparison to expanding health infrastructure is becoming a

matter of concern and a challenge for the public health sector in the state. There is no medical college in govt. sector or private sector for Allopathic disciplines.

- b. Selection of students for medical studies:** Another issue is the selection of students for MBBS course. Student selection is almost exclusively based on performance on an entrance examination after higher secondary education. Directorate of Higher & Technical Education is the Nodal Agency for conducting the entrance, sponsored and activated by Ministry of Education, Govt. of Arunachal Pradesh. Directorate of Higher & Technical Education has been established as a separate Department as a result of the bifurcation of Education Department in January, 1996. This Directorate deals with Higher Education from Collegiate level upwards including Science & Technical Education in the State (apdhte.nic.in). The selection is based on merit of the entrance test, which is usually directed towards testing of mere recall of facts in subjects like Physics, chemistry and biology. The humanistic approach, attitudes, and communication skills which form essential traits of any health professional are hardly assessed, (MCI, 1996). Yearly a fixed number of students as per the Govt. Of India quota seats, are placed in various Medical colleges all over the India which is strictly based on the merit. 32 seats in First nomination 2010 and 34 seats in first nomination 2011 has been allotted to the students for the MBBS course in various Medical Colleges in India (DHTE, 2010 & DHTE, 2011). However, it is observed that the aggregate number of seats for the state is not inadequate comparing to the requirement of physicians especially in the rural and remote areas of the state. Thus, the production of physicians has not kept in pace with the need. Well-to-do family's students who failed to get seat from the entrance, opts for payment seats in expensive private medical colleges outside the state. They pay substantially higher college fees and after completion of the course, they opt for jobs outside the state resulted in no change in density of physicians in the state.
- c. Options for Students for other careers:** Amongst young aspirant for career in the state likes to opt for engineering and other subjects, which supplemented by polytechnics, engineering institutes and colleges. Another reason the researcher could established, that MBBS course is a lengthy period of study which includes a four and a half year of MBBS course, one year of internship followed by one year of rural service. After MBBS, the PG seats are also limited in number to access and limited to desired subjects. Even after getting a PG seat, they will have to spend another three four years to settle down for their career. Counterpart, if they do engineering option as a career, they can settle down comfortably with a good career option, earlier than that of medical education.
- 2. Growth & expansion :**
- a. State Public Funding for Medical Colleges:** In the light of resource constraints of the state government, state funding for establishment of Medical Institutes is a matter of concern and challenge. The growth and expansion is only possible with the interventions of central govt. public funding or attracting private funds.

- b. Growth of teaching hospitals for establishment of new medical schools:** Medical schools in India must be linked to hospitals treating specified numbers of patients to comply with MCI regulations. One of the key norms of a 500-bedded tertiary hospital with 80% bed occupancy is a challenge to the state. **According to the Notification published on 22.10.2009 in the Gazette of India** *“That the person owns and manages a hospital of not less than 300 beds with necessary infrastructural facilities capable of being developed into teaching institution in the campus of the proposed medical college. Provided that in North Eastern State and Hill States, the beds strength required at the time of inception shall be 200 beds, which shall be increased to 400 beds at the time of recognition for a medical college having annual intake of 50 students and it shall be 250 beds at the time of inception which shall be increased to 500 beds at the time of recognition for a medical college having annual intake of 100 students.”* (MCI, 1999). Whereas, in the entire state only two hospitals namely State Hospital, Naharlagun with a bed strength of 148 nos. and General Hospital, Pasighat with a bed strength of 150 are nearly in shape that can be upgraded to Medical Colleges. Thus, before establishing Medical Colleges in the state, several infrastructural norms will be a great challenge at this moment.
- c. Meeting the requirement and development for New Faculty:** Attract and retain quality faculty would be a challenge. The teacher is the corner-stone for any system of education (Sood & Adkoli, 2000). The challenge of selection, retention and development of faculty in future as per MCI regulations will be challenge in the state. Political interference in the appointment of faculty and administrators may come up in due course of time. According to the MCI Vision Document 2015, additional faculty requirement in the country is projected to 15740 in the next 10 years. In the light of acutely short supply of Medical Teachers will also be a challenge to the state.
- 3. Medical Education in agenda of health sector reform:**
- a. Enhancing capacity of the system, plan for growth and expansion in publicsector:** Arunachal Pradesh Govt. recently in the month of September 2011, signed a tripartite memorandum of understanding (MOU) with Union Health Ministry and Hospital Services Consultancy Cooperation (HSCC) India Limited, for strengthening and up-gradation of Arunachal State Hospital at Naharlagun. The health and family welfare ministry, Govt. of India is supporting the up-gradation of the 140 bedded hospital to a 300 bedded multi-disciplinary hospital. Govt. of India, union health and family welfare ministry is focusing highly the North Eastern states, particularly Arunachal Pradesh for up-gradation of hospitals in the state. MoHFW had sanctioned the Rs. 185 crore 300-bedded hospital project on priority with a target time of 24 months for its upgrading to a medical college subsequently. Hospital Service Consultation Corporation (India) Ltd (HSCCIL) is executing the completion target within 24 months. The demolition of the existing structures in the 18 acre allotted area will begin immediately for the work to begin. HSCCIL was very enthusiastic to execute the project with a built in area of 3 lakh sq feet. (Source : Arunachal Times,

23rd Sept' 2011). So, it will take a couple of years to completely established Medical College, after fulfillment of several formalities.

A Project of strengthening & Up-gradation of 12 District and 1 General Hospital in Arunachal Pradesh is also started by the state govt. with an agreement and collaboration of M/s HSCC (India) Limited. The Consultant will provide the Hospital Detailed Engineering Design consultancy services for the Strengthening & Up-gradation of 12 District and 1 General Hospital in Arunachal Pradesh for the : Construction of 1 new General Hospital at Pasighat and Construction of 12 new District Hospital at Tawang, West Kameng, East Kameng, Lower Subansiri, Upper Subansiri, West Siang, Upper Siang, Lower Dibang Valley, Dibang Valley, Lohit, Changlang and Tirap.

DISCUSSION & THE SUGGESTIVE WAY FORWARD

The challenges of medical education in the state need careful and critical analysis and series of improvement. The suggestions are presented in points below.

- a. Enhancing capacity of the system, plan for growth and expansion in publicsector:**
To address the deficiency of physicians and access to medical education in the state, more medical colleges needs to be opened with upgraded hospitals. Pertinently, financial resource would be a challenge for the state. The state should explore and pursue Central govt. for adequate funding for making atleast 2 of the General Hospitals at Naharlagun and Pasighat into a teaching hospital for MBBS course as soon as possible.
- b. Enhancing capacity of medical education through public-private partnership:**
Access of Medical Education by prospective students within the state is a great challenge at this time. There is a need of widening of access of medical education within the state. The state is on the process to setup one Medical college with upgrading one of its hospitals in recent time. It is important here to consider that, in a study by Hall (Hall, 1998) shows that a 10% rise in the number of students registering with medical schools will produce only a 2% increase in the supply of doctors after 10 years. So, the requirement of aspirations and capacities of the increased number of potential students and to meet up the requirement of physicians seems difficult with establishing only one Medical College in the state. A healthy Public/Private partnership can do much in this regard. The state should explore the PPP models to establishment of more Medical colleges in the state. However, it should be based on accountability and evidence based regulations by both the medical council and the state. The issue of fees and seats should be monitored by the government. Moreover, the areas which are not capable of attracting private funds should be supported sufficiently well from public funds.
- c. Increasing quota seats of degrees courses:** The state should explore and pursue Govt. of India for increasing the quota seats for degree courses which are meant for

development of sufficient skills to serve as primary care. Increasing the pool of physicians would increase the availability of primary health care to masses.

- d. Selection of Students for Medical Studies:** Students interested in pursuing medical studies as a career should be selected with a new approach of selection according to the IMC new suggestive norms and Framework of Examinations of National Eligibility-cum-Entrance Test for Under Graduates (NEET-UG). The humanistic approach, attitudes, and communication skills which form essential traits of any health professional are also to be accessed in the selection tests.
- e. Selection and development of Faculty:** Appropriate method of selection and adequate training in the techniques of teaching would go a long way in improving the quality of teaching. Unfortunately, teacher training is perhaps the most vulnerable of issues in medical education (MoHFW, Task force, 2011). The teacher's performance is taken for granted and his or her competence in teaching is never questioned (Sood & Adkoli, 2000). Thus, an appropriate method of selection and training in educational methodology should be ensured that the faculty meets the objectives of the medical education system in the state. The recruitment and selection process for the faculty should no way be politically influenced. As suggested by MCI, the development of medical education units in all medical colleges will go a long way in the development of teaching skills amongst their faculty (Sood & Adkoli, 2000). In view of all this, there is a dire need of adopting a systematic approach to faculty development from the inception of the Medical College in the state. The requisite resources for faculty development, policies and programs should be guided with the Medical council of India guidelines.
- f. Alternative arrangements for supplement physicians in the state:** We have for too long clung to the belief that only graduate doctors can render competent healthcare, and that all other attempts to deliver health services are ill conceived and against patient interest. On a macro-view, the contribution of graduate doctors to primary healthcare in the country has been limited. While the aggregate number of graduate doctors (0.7 million doctors) is not very low for a developing country, only 28% of them are located in the rural areas (MoHFW, Task force, 2011). State can undertake experimentation in medical education by introducing 3 ½ year course of Bachelor of Rural Medicine and Surgery to fill the deficiency of physicians in villages. However, one argument can be that, 3 ½ course would produce poor quality doctors. Other in favor argument would be full duration of MBBS course is not necessary for educating the public about health, hygiene and treating preliminary ailments in village level.

CONCLUSION

The most important aspect of medical education presently is establishment and development of Medical institutes to give an access in the state. Government must shoulder the responsibility as the health is a state matter and put steps ahead to strengthen it in long run to address the issues regarding access, growth & expansion and synergy with health sector reform in the state.

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