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REVIEW ARTICLE

Public health scenario in India: Challenges for the 21st century

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ABSTRACT

Public health is one of the best indicators of a nations overall growth and development, no matter how big or small, how developed or undeveloped a country is, it speaks of the past, present and future of its generations. Its mission is to improve the health of the populations and reduce health inequalities. This encompasses systematic efforts to promote physical and mental health and to prevent disease, injury and disability. This task has been made increasingly complex by developments such as globalization, scientific and technological advances, and changing demographics. The effective functioning of any health system requires an effective public health service . Such a service is essentially multi disciplinary in nature and the workforce has prime responsibility for delivering non-personal, population-based health care within or at times outside the traditional health sector. Public health services, which reduce a population's exposure to disease through such measures as sanitation and vector control, are an essential part of a country's development infrastructure. The present communication deals with an over viewof the scenario of this vital reflector of development in India, and the challenges ahead we have to work out in the event of a serious awakening and progress of the fellowcountry men.

KEY WORDS: *Public, health, scenario, challenges, future.*

INTRODUCTION

Public health can be defined as the collective action for sustained population wide improvement in health". Its mission is to improve the health of populations and reduce health inequalities. This encompasses systematic efforts to promote physical and mental health and to prevent disease, injury and disability. This task has been made increasingly complex by developments such as globalization, scientific and technological advances, and changing demographics. The effective functioning of any health system requires an effective public health service .Such a service is essentially multidisciplinary in nature and the workforce has prime responsibility for delivering non-personal, population-based health care within or at times outside the traditional health sector. Public health services, which reduce a population's exposure to disease through such measures as sanitation and vector control, are an essential part of a country's development infrastructure. During the last decade several excellent reports have appeared highlighting the problems of public health in India (Kapilashrami, 2000, Khaleghian & Gupta, 2005., Gupta 2007, Chaddha Delisi et al.., 2007))

Back drop of Public Health:

Both globally and regionally, this has led to a serious examination of the public health workforce and on ways to ensure that it is prepared to address the many challenges it faces. It is acknowledged that in many countries within the South East Asia region this responsibility is not being adequately met and the public health service is in some disarray. Any appraisal of the health status of a nation must be done against the backdrop of its population. Presently, we are 1.5 billion and our population is growing at a rate of about 18 million every year. With only 2.4 per cent of the world land area, India has to support 16 per cent of its population. As per the 1901 census, India's population was 238 million (the then India included India, Pakistan and Bangladesh of today). During these hundred years, the population of India alone has become more than four times. All our economic progress is becoming far

outstripped by the increase in our numbers. And this galloping growth in population is the most important determinant of all aspects of our national wellbeing including health. Rapid economic development with increasing social and economic inequalities alongside globalization and environmental change has brought about a shift in disease trends and risk profiles. India has an unbelievable position of leading the world as the disease capital because of its diabetics and cardiovascular patients population. According to International diabetic Federation there are more than 50.8 million Indians suffering from diabetes and is estimated to increase to 58.7 million by 2010 (Lopez *et al*., 2006).

Moreover, 60 % of the world's cardiac patients will be in India by this year. The continued intensity of some diseases (HIV/AIDS, malaria, dengue, hepatitis), the resurgence of other communicable diseases (tuberculosis, plague, virulent cholera, meningitis) and the emergence of new ones (SARS, Asian bird-flu, mad cow disease, foot and mouth disease) has stretched the already weakened health systems often resulting in sub-optimal response. An increasing burden of no communicable diseases, mental illness, and incapacity due to injuries and violence has added to the problem. (WHO, 2006, MOH, 2009))

We have a health system that is under funded, under-regulated, irrational, hugely inefficient and very expensive, given the levels of people's income. Public provision of health services is inadequately funded, their facilities are plagued by overcrowding and a shortage of essential items and of skilled personnel. They are also insufficiently accountable to citizens. Private involvement in health provision is beset by rising costs and problems of exclusion, huge and growing differentials in the services available to rich and poor, and in adequate supervision associated with various manifestations of moral hazard. Public health systems too are either not functioning optimally or are in a state of decline due to lack of resources, political commitment and leadership. In many Member states, there is a lack of strong national policies supportive of public health with an increasing share of the health budget going to clinical services (Rao, 2007, WHO, 2007, Nora, 2008, MOH 2009)

As a result, India's health indicators are among the worst in the world, which explains to a large extent its appallingly low position in the international Human Development Index. Public Health has huge diversity with wide applications in the following areas:

· Public health emergencies;
· Disease outbreaks
· Health establishments and all the facilities providing health services; Health nuisances and bio-medical waste;
· Availability and accessibility of safe drinking water;
· Sanitation and environmental hygiene, including waste management for every kind of waste;
· Hygiene and safety in places and situations of public health importance including fairs,
· festivals, cinema, theatres, circuses, markets, shopping places, malls, lodging houses,
· Burial and burning grounds, slaughter houses;
· Environmental disasters, environmental safety,
· Occupational safety and industrial hygiene;
· Health Impact Assessment (HIA) of all new development projects;

Protection from and abatement of hazardous and injurious substances and activities or any other health hazards.

· Lifestyle related diseases; mental illnesses, widely prevalent diseases; public health related factors like use of tobacco, alcoholism and other substance abuse, and consumption of unhealthy foods; and promotion of healthy lifestyles like breast feeding,

Health seeking behavior, balanced diet, regular exercising, food and water safety, including with regard to their packaging, labeling, advertising and sale and consumer protection, including regulating advertising and taxation and excise polices that have, impact on these Road and transport safety, accident injuries/ trauma care;

Special public health measures for vulnerable or marginalized individuals and groups of population; and any other public health measures towards ensuring health and well being of all, including physical, emotional and mental health.

Role of Public Health Education

Public health in its present form is thus a combination of several disciplines viz. epidemiology, bio-statistics, laboratory sciences, social sciences, demography etc and requires diverse skills like epidemiological investigations, surveillance and response, evaluation etc and several categories of professionals are involved in the delivery of public health. The challenges mentioned above cannot be addressed by medical care services alone. They require multi-disciplinary and multi-sectoral approaches and social as well as healthcare interventions. Today, most governments recognize the importance of public health programs and henceforth public health professionals in reducing the incidence of disease, disability, and the effects of aging, although public health generally receives significantly less government funding compared with medicine. (WHO, 2007, Nora, 2008).

The NRHM has projected a requirement of 10,000

public health managers to be identified, trained and placed at Block, district and State level in all States of the country within the next few years. It requires significant up-scaling of institutional capacity for training personnel in the required skills and competencies. Henceforth, to address the prevailing situation, the WHO Regional Office for South-East Asia has formulated specific objectives to enhance national capacity in human resources through an array of different methods.

Approaches

a) Public Private Partnership (private for profit and not for profit sector)

Though the Government is primarily responsible for public health it alone can not deliver public health. Engaging the private sector through public-private partnerships can potentially strengthen human resources required for improving service delivery in underserved areas and thus reducing gaps in the supply, needs and demands for human resources, and achieving national public health goals.

b) International collaboration

A long-term effort is now required to rebuild the public health workforce; this will require major support from national and a wide variety of international agencies. A strengthened public health workforce will be in a better position to ensure that evidence on the effectiveness of health interventions and the new resources coming into the health sector lead to improvement of the health of all populations, not just the most advantaged. However it will require large resources both financial and technical. Though NHP –2002 has indicated enhancement of resources for public health but the same may not be available. Therefore international support should be sought to revamp the public health system (Rotem, 1995).

c) Empowering and strengthening and establishing professional councils

The existing councils are required to be strengthened and adequately empowered and new councils in areas of some public health disciplines are required to be established. Professional associations should as well come forward to monitor and become partner in accreditation of professionals they represent

d) Compulsory pre-permanent registration rural service

To meet the health manpower requirements for rural areas, there should be a compulsory three years rural posting or rural practice before permanent registration with the council or granting a post graduate seat. This is in place in various states in some forms. Higher quota could be given for opting for public health

e) Enhancing scope of public health activities for the nurses and para-medics

Possibility needs to be examined of entrusting some limited public health functions to nurses, paramedics and other personnel from the extended health sector after imparting adequate training to them. Many quote Medical council regulations will come on the way. We can however establish a separate Public health council like nursing council Need for more innovative ideas for setting up medical institutions in underserved areas, and to retain the trained highly skilled workforce as well as to attract those who have migrated. Involvement of Private sector will help in this.

Public Health Education and Practice

The links between education and practice in public health focused initially only in medical schools. Generally, medical graduates who entered the specialty of public health faced major handicaps in comparison to other specialties. They commence their journey by starting on the back foot, as in the South East Asia Region, the specialty has not yet gained its deserved status. It is still considered as a "drop-out" specialty that supposedly remains an easy option when entry into other specialties has failed. This is in direct contrast to what obtains in most developed countries where the competition to gain entry into training programmes in public health is intense, and the specialty attracts many of the best young graduates .

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Moreover the institutions are handicapped by poor facilities, exclusion of other allied health professionals, outdated curricula and disinterested staff. Curricula in use do not address the new challenges. They do not provide for exposure to policy-makers or mechanisms, and include minimal training in leadership. Such institutes produce inadequately trained professionals who do nothing to elevate the status of the specialty. There are exceptions, but these are few in number.

In the field of nursing, most of the above observations are valid. In many health care situations, nurses are indeed the front-line workers who have already demonstrated their expertise and capabilities. While the status of traditional public health nursing has declined in all countries of the Region, new nursing initiatives in management and leadership have been taken. These however are mainly in the clinical fields. Few nursing curricula, if any, have specific provision for public health education and training.

It was clearly identified for all postgraduate courses in public health in the region to accommodate nurses and suitably qualified allied health professionals, as is done in most developed countries. Since public health is a multidisciplinary speciality, it is advantageous for future

professionals to be educated and trained in a multi-professional setting. It is also highlighted the relative neglect of these categories in the areas of basic and continuing education, career opportunities and research. Existing educational programmes are in the main outdated and conducted predominantly, and often inappropriately, by doctors in hospital settings. There is little doubt that public health service can be enriched by appropriate education, training and deployment of well-trained AHP's in most Member States. Accreditation measures have yet to be implemented in many Member States. Deployment to the service sector is poorly managed and career structures have not been attended to.

To strengthen Public health education in India, following measures have been taken:

a) In Nov 2006, the Prime Minister launched the Public Health Foundation of India (PHFI), a private-public initiative to establish five 'world class' public health institutes aiming to train 1000 public health professionals every year.
b) For the revival of public health education, SAG called for action targeting public health institutes focusing on evidence-based requirements and supply, accreditation, curriculum revision, and capacity building of faculty.

c) SAG recommended collecting detailed information from all schools of public health in the Region, including the “art of politics” as part of the educational process, establishing baseline costs of training and deployment of public health professionals, and development of a compendium of all public health regulations within each region for the purpose of policy analysis.

d) The Regional Office has recently embarked on the process of enumerating the
public health workforce. Every country office has been sent a template for review and adaptation. Some work has already begun on detailing existing public health legislation in the Region. Very recently, work has commenced on a protocol for enquiring into the essential public health functions in Member States.

Of the communicable diseases, perhaps the biggest challenge would be HIV/AIDS. Of the estimated 33.4 million cases of HIV in the world, 95 per cent are in developing countries. In India ever since the first case was detected in 1986 in a commercial sex worker, several hundred thousand cases of full blown nature have been reported by the NACO. Other communicable diseases such as Malaria, Tuberculosis, Kalaazar and Japanese Encephalitis are likely to continue to pose challenges to the country in the coming years. Moreover, newer diseases reported from other parts of the world may also be considered while planning future health systems. More than 33 new viral and other diseases have been identified by CDC Atlanta since 1973; such as HIV, Rota virus, Parovirus-B19, Ebola virus, Hepatis-C, Hantavirus (Preston, 1980 & Jamison *et al.,* 1993, Zurn *et al.,* 2005)

Having reviewed the health scenario in India, it becomes evident that concerted efforts have to be made by the government and the community for improving the quality of life of people. While one can notice a considerable progress in certain fronts; in the field of health, all is not so well. The rapid growth of population has far outstripped our economic and social developments. For sustainable development, therefore, stabilization of population is the first and foremost requirement. There is no chance for us till we achieve the replacement level of fertility. We have to achieve NRR of unity by the target date i.e. 2011-2016.

The RCH program launched by the government in the Ninth Five Year Plan is therefore, a step in the right direction and we all have to ensure that it succeeds. We will have to ensure equitable distribution of health services for ensuring equity for health. Location of health services and facilities should be such that these are easily accessible and available to people, especially the under-privileged sections of the society. Regionalization of health care services with clear-cut geographical demarcation for use of facilities along with proper two-way referral system would go a long way to ensure equitable distribution of health services to all.
Moreover, human resource planning, human resource development, performance appraisal system, work culture, rational transfer-policies, incentives and career development opportunities for health manpower would ensure a motivated workforce. Therefore, this aspect would need adequate attention. Strengthening of health promotion and protection by development of an integrated education and health promotion program, with locally relevant content and media for dispersion of the messages, implementation of preventive and promotive health activities in an integrated and comprehensive manner with involvement of all health and related sectors, and making health as an integral part of the development program along with strict and effective enforcement of legislation related to health and environment are some of the other primary level strategies for the future.

Strengthening of the health sector including partnership in health development by identification and specification of the role of public and private sectors in health should be encouraged. The co-ordinating and monitoring mechanisms need to be defined and effectively implemented in the health and related sectors. Effective

involvement of the indigenous systems of medicine in provision of health care services with specified role and responsibilities would further strengthen the system.

Developing and strengthening of specific health programmes, adopting and developing an area specific comprehensive health care approach to cover all the major health problems in a given geographical area with linkages with other related sectors would avoid duplication and wastage of resources. Another area for future consideration would be developing and using an appropriate health technology so as to have locally relevant health technologies which fit into the local socio-cultural milieu. Strengthening of international partnership in health by integrated involvement of international organisations and agencies in important national health programmes and having a common platform for sharing experiences and expertise in health among various countries especially in the South East Asian countries are important requirements.

The Report of the National Commission on Macroeconomics and Health submitted in 2005 has some very high quality papers. This Commission chaired jointly by the Health Minister and the Finance Minister identified some important issues facing the health care sector. In a candid assessment of the health care sector in India, the report said: "The principal challenge for India is the building of a sustainable health system. Selective and fragmented strategies and lack of resources have made the health care system unaccountable, disconnected to public health goals, inadequately equipped to address people's growing expectations". The reasons for failure can be attributed to three broad factors: poor governance and the dysfunctional role of the State; lack of a strategic vision; and weak management."

How does India compare with other countries, with respect to the numbers of doctors? The table below shows World Health Organization (WHO) figures for the density of doctors & specialists, and the density of trained nurses & midwives, as well as certain mother and child health indicators. India has the worst health indicators as well as the lowest numbers of doctors PLUS nurses for every 10,000 people. The density of doctors, at 6 per 10,000 (not including ayurvedic and homeopathic practitioners), is expectedly far below the numbers for developed countries. The density of nurses in comparison with the developed countries is even more glaring. The professional associations like the Indian Association of Preventive and Social Medicine, the Indian Public Health Association, the Indian Medical Association, the Indian Paediatric Association, etc. can play a very crucial role by providing technical inputs for planning, monitoring and evaluating the health services in the country.

Conclusion

The ultimate aim of the South-East Asia Public Health Initiative is to ensure that all countries in the Region have in place well-trained public health professionals who by adequate education & training can provide the necessary leadership for publicly-funded health systems. It reiterates that investment in the public health workforce is crucial, that only public health professionals can effectively bridge the gap between the current emphasis on clinical services and provision of a wide range of multi-disciplinary and multi-sectoral approaches to improve the health of whole populations. It maintains that a public health perspective has the greatest possibility of meeting the health needs of countries in a rapidly evolving development context. While medical care can reduce the incidence of death and disability, it is public health with its focus on population-based health promotion and disease prevention activities that will sustain healthy and economically-productive communities.

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