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Career Opportunities for Master of Public Health Graduates in India

K Sharma, S Zodpey, Z Quazi Syed and A Gaidhane

Abstract

In India, in spite of obvious need, there is a lack of clearly defined career plans for non-medical public health graduates. This study was undertaken to identify potential career options, opportunities and challenges for Master of Public Health (MPH) graduates to work in both public and private health sectors in India. Information was collected by undertaking a literature search, six focus group discussions, 50 in-depth interviews of public health professionals and a national consultation on MPH program development in India. Twenty three institutions in India offer MPH programs and three quarters of MPH graduates are from a non-medical background. MPH graduates have opportunities in the health system and academic institutions and jobs in academic and research institutions are likely to increase in the near future. Non-academic jobs are in healthcare delivery, monitoring and evaluation, health and financing. There are significant challenges for entry

into the public and private health sector, which are due to limited awareness of opportunities, lack of requisite skills for searching and applying for jobs, uncertain recruitment processes, poor working conditions, poor living conditions in rural areas, frequent transfers, lack of competitive salaries, unclear expectations of work roles and feedback. Institutionalising public health service at central, state and district levels, with clearly defined career pathways is required.

Abbreviations: FGD – Focus Group Discussion; IDI – In-Depth Interview; MPH – Master of Public Health; NGO – Non-Government Organisation; NRHM – National Rural Health Mission.

Key words: career opportunities; public health; MPH graduates; India.

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Introduction

The health services delivery sector is undergoing rapid change. Greater emphasis is being placed on health promotion and disease prevention as a means to reduce the cost of care by improving the population's health. Development and application of population-based prevention programs by multidisciplinary teams of competent public health professionals is essential to achieve desired health outcomes. [1-3]

Traditionally public health education in India was offered through medical schools and the public health professionals produced by such schools were medical doctors. Recently in India, several institutions launched Master of Public Health (MPH) programs which are open to both medical graduates as well as graduates from allied health professions. Thus there is a conscious effort to open public health education to non-medical professionals with an aim to create multidisciplinary teams of public health professionals in the

country. However, career opportunities for MPH graduates remain unclear. [5] Furthermore, the health sector in India is facing a need and demand paradox. [6] There are poorly defined public health career opportunities for MPH graduates. [5,6] In the Government sector, public health managerial and leadership positions are mostly occupied by physicians/doctors with additional qualifications in either public health or community medicine or preventive and social medicine.

MPH reflects an emerging discipline with the potential to create a competent and effective public health workforce, contributing significantly towards the delivery of essential public health services. However, there is a need to create career opportunities and a structured career advancement plan for MPH graduates for entry into public and private health roles. [1,2,4] Many initiatives have been taken up by the Indian Government in the last decade which has built in scope and future dimensions for public health professionals. The launch of the National Rural Health Mission (NRHM) in 2005, public-private initiatives like the Public Health Foundation of India and, several programs and policy initiatives, have opened up avenues for work for these professionals. The purpose of this study was to explore potential career opportunities for MPH graduates, to find out the challenges for MPH graduates entering the health sector and to propose a broader framework for developing a career plan for MPH graduates in India.

Methodology

The study used four approaches to collect the data: a literature review; focus group discussions; in-depth interviews; and a national consultation. The study protocol and study tools were approved by the Institutional Ethics Committee.

Literature review: A comprehensive literature review was undertaken to understand existing career opportunities for MPH graduates. Literature relating to opportunities and challenges for MPH graduates was reviewed. This review utilised Pubmed, Embase, Scopus and Google Scholar search engines and the websites of various Indian universities/institutes offering MPH or any public health programs. Key words used for the literature search were MPH graduates; future prospects; career opportunities; models of career plans; public health professionals; health workforce planning and building; and challenges for public health career pathways.

Focus group discussion (FGD): Six FGDs were conducted for the purpose of this study. Participants were graduates who were about to complete the MPH program (three

FGDs) and those who had successfully completed MPH courses in the last year from any public health institute in India (three FGDs). Women MPH graduates were an equal part of all FGDs. The FGD guide was prepared after expert consultations and each session lasted around 80 to 120 minutes. The purpose of FGDs was to study the opinions and perceptions of MPH graduates on issues like reasons for taking up an MPH course, awareness of career options and the challenges in accessing a career in the health sector.

In-depth Interviews (IDI): Fifty in-depth interviews of public health professional were conducted to study existing career opportunities and challenges in the public and private health sectors for MPH graduates. Thirty IDI were conducted with public health professionals currently practising at various levels in the public health system, international organisations or donor agencies and Non-Government Organisations (NGOs), whereas 20 IDI participants were drawn from academic institutions. IDI interviews lasted for 45 to 60 minutes. During the IDIs professionals' perceptions of changing trends in the health sector and suggestions for developing a career plan for MPH graduates were also discussed.

National consultation: A national consultation on MPH program development in India was organised by the Public Health Foundation of India, New Delhi. The consultation's agenda was to discuss the overall scenario of public health education in India, situational analysis of MPH programs, a competency framework for the MPH syllabus, career pathways for MPH graduates and accreditation of MPH programs. Around 55 participants, representing institutions offering MPH programs, Ministry of Health and Family Welfare – Government of India, Medical Council of India, National Board of Examinations, University Grants Commission, Institutes and Universities offering public health programs, The Nossal Institute for Global Health - University of Melbourne, Australia and the Public Health Foundation of India, New Delhi, attended the consultation. A Working Group was constituted to review career opportunities and challenges in seeking jobs for MPH graduates and to develop a broad framework for career pathway plans in India.

All FGDs and interviews were recorded, with the consent from participants being interviewed. After the interviews, the recordings were transcribed into computer files. Care was taken to assure the respondents that the data were confidential and they would not be identifiable in any subsequent report. Interview transcripts were read by the

researcher and coded. Category headings were generated and all of the data were accounted for under these headings. Two independent researchers verified the accuracy of the category system and after discussion minor modifications were made to it. Findings of the FGDs, IDIs, national consultation and literature review were triangulated and a broad framework for public health career plans was proposed.

Results

Reason for choosing MPH course: Currently 23 institutes offer MPH courses in India with an annual intake capacity of 573. [5,6] However, there is a gap between the total places available and the number of graduates opting for MPH programs. FGDs revealed that around three quarters of the graduates were not medical doctors. Few enter public health courses on the recommendation of their senior colleagues. Instead the majority take MPH courses by choice having had an opportunity to work in the health sector after graduation, which then motivated them to pursue further studies in public health. A limited awareness regarding career opportunities for MPH graduates was perceived as a significant hurdle for students to take up MPH courses in India. A participant in FGD stated:

If students during their undergraduate (courses) know public health is likely to interest them and they will have a chance for a better and satisfying career, there will be more takers for MPH programs.

Public health career opportunities in India: Participants stated that career opportunities in public health are enormous, particularly in India, due to the triple burden of health problems such as communicable and non-communicable diseases and environmental health problems, disasters/calamities. The Working Group at the national consultation recognised two broad areas of career opportunities. Opportunities in academia and research are available at institutions offering MPH or public health courses. Non-academic career opportunities are mostly related to service delivery/program implementation or monitoring and evaluation. Graduates perceived a career in government or the public sector as having a higher level of job security, which included retirement and health benefits. However they also felt that working in the public sector is challenging because of the need to address the public health goals of a community.

The literature search and findings of FGDs and IDIs revealed that MPH graduates have career opportunities in the following broad areas in India:

- Health policy and management (academic, manager, policy advisor/policy analyst etc).
- Disease prevention and control (public health physician, epidemiologist, surveillance officer, monitoring and evaluation coordinator, data manager, statistician etc).
- Health promotion (health educator, counsellor, mass medical coordinator etc).
- Occupational/environment health (environmental scientist, public health/sanitary engineers, factory inspectors etc).
- Reproductive health (HIV/AIDS specialists, public health physicians, sexual/reproductive health counsellor etc).
- Oral health (oral health physician, dental hygienist, researchers - tobacco prevention control etc).
- Population health sciences (demographer, statistician, etc).
- Public health laboratory.
- Public health/community health nurse.
- Entomology (entomologist, vector biologist etc).
- Public health nutrition (food inspector, drug inspector, jobs in food safety etc).
- Pharmaceuticals (pharmacovigilance, drug research etc).
- Global health (public health preparedness, epidemiologist, surveillance, policy adviser etc).
- Health insurance and finance (health economist, health insurance advisor, etc).
- Hospitals (public health specialist, hospital managers, etc).
- Academia and research institutes (research officers, research associates, etc).

Challenges in choosing public health as a career

Professionals stated that most were not aware of various career opportunities available to them in the health sector and that they also lacked requisite support and skills to search and apply for jobs. A public health professional in IDI noted:

Public health is an exciting profession that offers numerous options for pursuing a career...but most of them (MPH graduates) didn't know where and how to begin (their career). To work out where to start, one must think about what you are interested in, what you've enjoyed learning about and what you would like to learn about . . . and then selecting a appropriate career in public health.

As stated by public health professionals and MPH graduates, barriers to entering the public health profession include a lack of transparency in the recruitment process; poor

working and living conditions in rural areas; restricted professional (and personal) development; lack of clarity on transfers and staff deployment policies; lack of competitive salaries, unclear expectations about work roles, work expectations and feedback; job insecurity in not-for-profit and private sectors; lack of clear vision, mission and plans in government and organisations on health workforce issues; and poor linkages between the public health sector and academia. It was also believed that a lack of structured career advancement pathway for MPH graduates, particularly in the private and not-for-profit sector, is a considerable challenge for graduates in taking up public health. Discussion during the national consultation drew attention to the unavailability of pre-structured career programs and the lack of clear policies for promotion, particularly for non-doctor MPH graduates in India. The lack of a public health cadre in India was also viewed as an obstacle for creating public health jobs and structured career pathways in the health sector for MPH graduates.

Public health education and public health career

Participants stated that academic institutions are producing public health graduates without the requisite competencies to work in diverse fields of public health. It was also observed that the current curriculum for MPH programs significantly differs across institutes with varying focus. [6,7] Discussions at the national consultation also point to a gap in the current public health curriculum and public health competencies needed by graduates to deal with the current and emerging health problems. A public health professional observed:

My role as a public health practitioner is to contribute for a range of things, for example...planning, developing and implementing delivery of public health programs across different sectors and settings; understanding and being able to communicate and to offer specialist advice to clients. If I look back at the MPH degree I undertook, I think, it (MPH program) didn't equip me well with all these necessary public health skills. I learnt all these skills while on the job. Internship would be very useful to learn and practise public health skills in the field.

Discussion

Public health is an enormously diverse and dynamic field. The public health mandate has grown from infection prevention to chronic disease, mental health, bioterrorism, demography, environmental health, health financing and policy and so on. To address current and future public health challenges, the health sector needs to invest in

strengthening infrastructure at every level, with a focus on a continual influx of multi-disciplinary, public health professionals. [4,8,9] Significant advances have been made by many countries toward establishing a truly multi-disciplinary team to meet public health goals. [4,10,11] Our study revealed that India requires a similar public health workforce plan that clearly demonstrates systematic and inter-connected public health career opportunities for the entire public health workforce. [12,13]

India is facing challenges in promoting graduates to enter into MPH courses. To some extent the issues may be addressed by developing a public health module for undergraduate courses with an aim to sensitise students to public health issues and to create awareness about public health at an early stage. Another approach would be to create opportunities for undergraduates to work as volunteers in the public health sector. Successful efforts in this regard were taken in the United States in early 2000 by providing public health career and educational exposure, experience and support to school students. [4] Another important strategy is to persuade more students to take up MPH courses and therefore create demand for graduates in the health system.

Regarding career perceptions, this study revealed that there was no clear concurrence on what constitutes a career in public health. Broadly, it was observed that the term 'public health career' is considered to be a salaried employment and career pathway for promotion on a career ladder. This study also identified a lack of awareness and limited skills to search and apply for public health jobs as a significant hurdle to entering into the public health system. Public health institutions need to communicate career opportunities to prospective students through web sites and by forming an alumni and linking it with new public health graduates.

This study explored various opportunities for MPH graduates either in academia or in the health system, at various levels. These opportunities are available within the public or government sector, private health sector, not-for-profit organisations or international organisations. The level and type of position depends upon each organisation, its mandate and projects. Changing trends in public health education in India, with more institutions planning to offer MPH courses in future [5,6] may create increased demand for faculty and research positions. However, each career has its own advantages and limitations. Most of these positions primarily require public health competencies to deliver desired services effectively, however a MPH or public health qualification requirement is not essential.

India has a huge network of not-for-profit organisations working in diverse fields and across wide geographic areas. MPH graduates have immense opportunities in these sectors. The major challenge for jobs in this sector is the lack of stability and unclear structured career progression plans. Not-for-profit sectors, as well as the private sector and international agencies are not uniformly present across all states or regions and areas of work greatly differ as well. Therefore MPH graduates may need support to identify organisations offering opportunities related to their area of specialisation and at their preferred location.

Relevant and competency-based public health education enables graduates to acquire the desired core competencies for delivering essential public health functions. Therefore, promoting public health as a discipline at the national level with greater emphasis on public health development activities and opening up more public health courses, needs immediate consideration. [14] However, issues related to quality education must not be undermined whilst starting new MPH courses. Currently in India, MPH programs are offered in two different modes - the general MPH programs, which equip graduates with core public health competencies and the specialised MPH programs with optional tracts or specialisation. [6,7] MPH programs in India need to define core competencies to guide faculties in delivering modules and producing competent public health professionals.

Career progression pathways are considered as routes people take to achieve career goals. [4] Career progression is an important determinant to seek for jobs in any profession. This study highlights the lack of pre-structured career program plans for MPH graduates and significant barriers for entry into the public health sector. The Public Health Foundation of India, a public-private initiative that was created in 2006 to address workforce issues, and a national consultation by the World Health Organisation on the public health workforce in India in 2009 recommend institutionalising the Public Health Service or Indian Health Service or All India Cadre for Public Health at central, state and district levels to create more positions with clear career progression plans for the entire public health workforce. [12,13]

Way forward

A multidisciplinary public health workforce can be developed by identifying positions and creating opportunities that link across discipline/sectors in public health. Based on the findings from this study and literature search, we propose

the following framework for developing comprehensive public health career plans in India:

1. Defining generic public health functions and linking these functions to competencies needed by public health professionals and their specific roles and responsibilities at various levels.
2. Placing appropriate/eligible candidates in positions best suited to their qualifications and skills and informing them about possible career progression within and across specialties.
3. Promoting linkages between academia and professional groups and the public health system for career planning.
4. Creating a credentialing mechanism, other than educational background, to ensure that anyone who practises in public health demonstrates professional competence not only in his or her specialty, but also in the core essentials of public health.
5. Creating a consortium of institutes/universities offering public health programs in India. The consortium may create a kind of 'one-stop-shop' for India-wide information on careers and development in public health. It will help to recruit MPH graduates into public health jobs and support the whole public health workforce from volunteers to senior management in developing their careers.

To conclude, the MPH program prepares students to work as public health professionals capable of addressing global, national and local public health challenges through multidisciplinary approaches that apply the latest scientific knowledge. Therefore, the health sector in India urgently needs to respond by offering more career opportunities for MPH graduates with structured career pathways, plans and policies.

Competing interests

The authors declare that they have no competing interests.

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