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Perceptions of State Government stakeholders & researchers regarding public health research priorities in India: An exploratory survey

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Public health research has several stakeholders that should be involved in identifying public health research agenda. A survey was conducted prior to a national consultation organized by the Department of Health Research with the objective to identify the key public health research priorities as perceived by the State health officials and public health researchers. A cross-sectional survey was done for the State health officials involved in public health programmes and public health researchers in various States of India. A self-administered semi-structured questionnaire was used for data collection. Overall, 35 State officials from 15 States and 17 public health researchers participated in the study. Five leading public health research priorities identified in the open ended query were maternal and child health (24%), non-communicable diseases (22%), vector borne diseases (6%), tuberculosis (6%) and HIV/AIDS/STI (5%). Maternal and child health research was the leading priority; however, researchers also gave emphasis on the need for research in the emerging public health challenges such as non-communicable diseases. Structured initiatives are needed to promote interactions between policymakers and researchers at all stages of research starting from defining problems to the use of research to achieve the health goals as envisaged in the 12th Plan over next five years.

Key words India - policy makers - public health research - research priority

Introduction

Stakeholders in public health research are researchers, funding agencies, organizations hosting research activities, policymakers, health managers, professionals in the health care system, patients and the community as well as the healthcare industry. It is important to understand the perceptions and views of various stakeholders on priorities in public health research to maximize the benefits of research¹.

Involvement of various stakeholders apart from researchers is crucial to align the research initiatives with policies and public health programmes². It is particularly important in view of low public health research funding and low public health research output³.

The need for better collaboration between researchers and policymakers to enhance the use of research has been reported^{1,4}. In UK, these efforts

were successful in addressing needs of various stakeholders¹. In Canada, the study that evaluated the interactions between researchers and decision makers identified three models of decision maker involvement namely formal supporter, responsive audience, and integral partner⁴. There is a lack of data regarding involvement of policymakers in the public health research prioritization in India.

Health is a State subject in India, therefore, public health programmes are delivered by the State health systems. State level stakeholders who are actively involved in the implementation of public health programmes are one of the most important stakeholders in identifying public health research agenda that would lead to direct programmatic benefits. In this context, it is important to understand the public health priorities as perceived by these stakeholders. In India, Department of Health Research (DHR) was constituted in 2007 with the mandate to serve as an apex Department for medical, allied basic sciences, clinical and public health research in the country. The DHR mandate is to translate the innovations into products/ processes and to introduce these innovations into public health service through health systems research, and to strengthen the coordination between various stakeholders to increase the use of research findings in practice of public health⁵.

A two day consultative meeting was organized by the DHR in September 2011 to bring the State government officials and public health researchers together on the same platform. A survey was conducted prior to the two day consultation in August, 2011 to obtain perspectives of State government health system stakeholders regarding public health research priorities in various Indian States. The survey also covered public health researchers from leading public health organizations in India to understand their views. An exploratory study was conducted to generate information that could serve as a basis for discussion in the meeting. The major objective of the meeting was to identify the key public health research priorities as perceived by State officials and researchers.

Study methodology & design

A cross-sectional survey was conducted by National Institute of Epidemiology (NIE), Chennai, India in June-July, 2011 among stakeholders of various State government and national level programme stakeholders as well as researchers from public health research organizations and academic organizations.

The State officials included National Rural Health Mission (NRHM) directors, Directors of Health Services or State level national programme managers. Public health researchers from leading national public health research and academic organizations in various States were also approached.

Sample size and procedure: At least two officials from all 35 States were contacted. These officials were informed that they could take the feedback from State level programme managers for the survey. Nearly 30 leading public health research institutions in India were listed and at least one renowned public health researcher was contacted from each of these institutions.

Data collection: A self-administered semi-structured questionnaire was used for data collection. The study questionnaire included structured questions to capture demographic profile and work experience of the respondents and open ended questions requiring them to write five leading public health research priorities. Additionally, the participants were requested to rank the six pre-identified public health research domains namely reproductive/maternal health including family planning, child health problems for under-five age group, adolescent health, undernutrition including micronutrient deficiencies, infectious diseases and non-communicable diseases, from one to six.

The questionnaires were sent to the individuals by post and email and follow up was done by telephone and email. Data collection was facilitated by graduates of epidemiology and public health training programmes of NIE working in various State governments. They contacted the respective State officials, explained the background of the survey, handed the questionnaires, and made the required follow up to encourage the State officials to complete the survey.

The study was approved by the NIE ethics committee, and informed consent was obtained from all the participants.

Data analysis: The proportions for the quantitative data were computed. The data were coded from the open ended questions regarding five leading public health research priorities. MS Excel and SPSS version 16.0 (SPSS Inc., USA) were used for data analysis.

Survey findings & recommendations

Overall 35 State officials from 15 Indian States and 17 public health researchers responded to our request



Fig. Participating Indian States (highlighted in blue) represented by State officials in the survey, 2011.

and participated in the study (Figure). In response to an open ended query regarding public health research priorities, 153 responses (multiple responses from each respondent) were obtained from 35 State officials and

64 from 17 public health researchers. Five leading priorities that were identified included maternal and child health (24%), non-communicable diseases (22%), vector borne diseases (6%), tuberculosis (6%) and HIV/AIDS/STI (5%) (Table I).

In addition to open ended query, a list of five broad areas was separately ranked for urban and rural areas by the participants. Reproductive/ maternal health including family planning was ranked one or two by 23 (66%) State officials and 12 (71%) public health researchers in rural areas. Child health problems were ranked one or two by 18 (51%) State officials and 12 (71%) public health researchers. Infectious diseases were ranked one or two by higher proportion of State officials as compared to public health researchers [12 (34%) vs. 5 (29%)]. In contrast, undernutrition was ranked one or two by higher proportion of public health researchers as compared to State officials in rural areas (Table II).

In urban areas, higher proportion of State officials ranked reproductive/maternal health at one or two as compared to public health researchers [22 (63%) vs. 4 (24%)]. Child health problems for under-five age group were ranked higher by nearly half of the State officials and public health researchers. At least one fourth of the State officials and public health researchers ranked adolescent health as one or two for urban areas. Non-communicable diseases were given higher ranking by 10 (59%) public health researchers and only 9 (26%) State officials for urban areas (Table II).

Table I. Public health research areas listed by experts and State officials in response to the open ended question regarding five leading research priorities for the State, 2011

Public health research priorities	State officials (N=153) %	Experts (N=64) %	Total (N=217) %
Maternal and child health	29	13	24
Non communicable diseases	19	30	22
Vector borne diseases	8	3	6
Tuberculosis	7	3	6
HIV/AIDS/STI	6	2	5
Undernutrition/Micronutrient deficiencies	4	5	4
Health system research / Health service delivery related research	3	8	4
Community involvement	5	3	4
Diarrhoeal diseases	5	2	4
Environmental health issues	4	3	4

Table II. Public health research priorities ranked 1 or 2 for urban and rural areas by experts and State officials, 2011

Public health research domains	Ranked 1 or 2 for rural				Ranked 1 or 2 for urban			
	State officials (N=35)		Experts (N=17)		State officials (N=35)		Experts (N=17)	
	No.	%	No.	%	No.	%	No.	%
Reproductive/Maternal health including family planning	23	66	12	71	22	63	4	24
Child health problems for under five age group	18	51	12	71	17	49	9	53
Adolescent health	5	14	4	24	9	26	5	29
Undernutrition including micronutrient deficiencies	4	11	7	41	2	6	4	24
Infectious diseases	12	34	5	29	9	26	4	24
Non-communicable diseases including injuries	5	14	2	12	9	26	10	59

In addition to disease specific priorities, health systems research, community involvement and environmental issues were also identified among the leading ten priority areas (Table I). Various other broad research areas such as impact assessment/translational research, adolescent health, economic impact of public health programmes, technology, human resources, immunization and vaccine preventable diseases, gender empowerment, urban health, de-centralized planning and new emerging infectious diseases were among the other identified priorities.

This survey was an effort to include the State level policymakers and public health managers in the process of planning relevant public health research. Maternal and child health research continued to remain the leading priority; however, public health researchers gave more emphasis on need for research in the emerging public health challenges such as non-communicable diseases and adolescent health. These priorities were aligned to health research agenda of 12th Plan⁶.

Involvement of non researchers in the process of research to define the problems better can increase the use of research by practitioners and society. Traditionally it is believed that researchers should be able to determine the research agendas on their own, however, the need for collaborative research with other stakeholders' involvement in setting the agenda has also been emphasized⁷. Several countries initiated structured interventions in 1990s to increase the collaborations between researchers and policymakers¹. National Health System Research and Development Strategy-UK, Agency for Health Care Policy and

Research in US and Prime Minister's National Forum on Health in Canada are some of the examples of such initiatives⁷. In India, the DHR proposes to establish special linkages with central and state public health services to fulfill the mandate of translating the research findings to public health programmes and policies⁵.

This survey provided an insight into the perceived priorities of important stakeholders based on the experiences in the respective States. It needs to be emphasized that these are initial steps and the survey has to be expanded and also extended to other States for getting a comprehensive picture. Maternal and child health was perceived as the leading priority by researchers as well as State officials. It has been a leading area of public health research in the past decade³. However, in context of the need to achieve millennium development goals, this should continue to be the focus of research. This is also consistent with the health research agenda of 12th Plan and goals of National Rural Health Mission, an initiative of the central/federal government to strengthen the primary care and achieve the millennium development goals for maternal and child health^{6,8}. Non-communicable diseases related research was reported higher in the priority, more so for urban areas. This is consistent with rising burden of NCDs in India and is one among the ten health research priorities identified in the 12th Plan^{6,9}.

Lower priority given to research related to under-nutrition by the state officials was not consistent with the data that indicated high rates of malnutrition including micronutrient deficiencies in most of the States¹⁰. This may be because nutrition is perceived beyond the

health system functions and the interventions involve programmes and initiatives from other social sector departments of the government as well. However, 12th Plan calls for need for convergent action on nutrition and need for monitoring the health impact of programmes and policies of non-health sector⁶.

Health systems research was identified as an important priority area only by a small proportion of participants probably due to low exposure to health systems research. Health systems research is cross-cutting and may help in strengthening the health systems and implementation of various programmes. Among the ten key priorities for health research in 12th Plan, there are three priority areas of health systems research namely health financing, health information systems, and public health systems strengthening⁶. There is a need for sensitization of the public health professionals regarding scope and need for health systems research.

It is possible that some respondents could not have clearly differentiated between public health priorities from public health research priorities though it had been clarified in the invitation letters. Another limitation of the study was that we received the responses from 15 (42%) States even after repeated efforts to contact using various modes of communication. For every State at a particular level of progress and development which was not represented in our survey, there was a comparable State with similar geographic location which was represented in the survey. Hence it is appropriate to conclude that in spite of non-representation of some States, overall national views have been captured. However, it is important to explore the views and options of the health programme managers and policymakers from the States not represented in the survey at some later time point for consensus building. Special emphasis will have to be given to consider the viewpoints of stakeholders in the less developed States to consider their unique problems. Strength of our study was bringing together the views of both researchers and non-researchers.

In conclusion, structured initiatives are needed to promote interactions between policymakers and researchers at all stages of research starting from

defining problems to the use of research to achieve the health goals as envisaged in the 12th Plan over next five years. There is a need to identify specific research questions in the priority research areas that are most relevant and useful to the policymakers. Special focus to promote health systems research will be required to address the cross-cutting challenges in the implementation of public health programmes.

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