Research to achieve health care for all in India

Well planned health research is fundamental to the improvement of health in all countries. Relevant health research has contributed to a doubling of life expectancy in India over the past 60 years since independence. However, India still has the largest disease burden of any country, the mitigation of which will require existing gaps in health research to be addressed. The national health policy of India has strengthening of health research as one of its aims. On the basis of an understanding of how the research produced in India relates to the disease burden and health-system priorities, who is producing this research, and what the recent major health research initiatives are, we suggest here how policy and funding should respond to enhance research in order to achieve health care for all in India.

The proportion of published papers from India in PubMed increased from 0.4% of the global total in 1988 to 1.8% in 2008. However, the proportion of public health research, which is crucial for achieving health care for all in India, continues to be small, at 5% of the total health research published. Additionally, many of the leading causes of disease burden across communicable diseases, non-communicable diseases, and injuries continue to be under-represented in this published research output, indicating that even among the limited papers on public health research, a large proportion do not address public health priority conditions in India. Distinct from published papers, an analysis of public health research reports produced in India also showed that the leading chronic non-communicable diseases and injuries were under-represented between 2001 and 2008. Health-system research was more evident in public health research reports than in published public health papers. However, the scarcity of research about the routine health-information system in both reports and in published papers is concerning because it is crucial to track the response of the health system to the health needs of the population. Only one in four public health research reports were rated as being of adequate quality. The quality was higher for reports produced by collaborations between Indian and international organisations, indicating that there is merit in promoting such collaborations for more useful research output.

An analysis has shown that evaluations of population-level health interventions and policies in India are commissioned mostly by international organisations, suggesting that governmental organisations in India should pay more attention to commissioning evaluations of key interventions and policies. The study design and analytical approach were generally poor in these evaluations, a weakness that should be urgently addressed.

Although most clinical research in India is done by academic medical institutions, the organisations producing basic science and public health research are varied (figure). Efforts to enhance health research in India would have to involve this variety of stakeholders. The Indian Council of Medical Research has been the nodal organisation for health research in India since 1949. In recognition of the need for wider coordination in health research between various sectors, the Department of Health Research has been established under India’s Ministry of Health, which includes the Indian Council of Medical Research.

For published papers in PubMed see http://www.ncbi.nlm.nih.gov/pubmed

Figure: Institutions producing public health and basic science research in India

Health ministry agencies include Indian Council of Medical Research network, and agencies of other government ministries include networks of Council of Scientific and Industrial Research and Indian Council of Social Science Research. Public health research reports 2001-08 include those in the public domain on the internet, and papers from 2007 include those in PubMed.
The department aims to: encourage innovation related to diagnostics, treatment methods, and prevention; translate innovations into products or processes by facilitating their evaluation; and introduce innovation through health-systems research. In addition to important ongoing efforts to enhance public health training and research in India (eg, the National Institute of Epidemiology and some universities), a major new initiative that aims to strengthen training and research capacity relevant for health programmes and policies is the Public Health Foundation of India, which was launched by the country’s Prime Minister. Another promising new initiative is the Biomedical Research Career Programme for India, jointly funded by the Indian Government’s Department of Biotechnology and the Wellcome Trust, which is planning to increase its emphasis on public health research. Although a full analysis of all present funding for health research in India and what it is spent on is not available, the funding from both domestic and international sources has increased substantially in India over the past decade.

What then are the key goals that policy should address to boost research towards health care for all in India? First, a national research tracking mechanism should be developed to guide funding and commissioning of high-quality research into the major under-represented causes of disease burden and into neglected health-system issues. Second, a systematic plan is needed to make research initiatives more interactive with policies and implementation of health programmes, so that research is more relevant for the health system and policy, and the knowledge generated is used more often by policy makers. Third, rigorous evaluation research should become an essential component of all major population health programmes and policies, to understand how these could be refined to improve health outcomes and how the underserved segments of the Indian population could be better reached to improve health equity. For these goals to be achieved, the major national organisations attempting to strengthen health research in India should come together to provide effective stewardship. These organisations should collaboratively develop mechanisms that enable agreement on tangible medium-term and long-term targets for health research in the country, a plan of action, and methods to track progress in research utilisation to achieve health care for all in India. Although solutions for India will have to be tailored to its circumstances, there are useful lessons to be learnt from the systematic efforts of other countries aimed at matching research with public health priorities to more effectively improve population health. 

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We declare that we have no conflicts of interest.