

Utilization of Health Research Recommendation in Policy and Planning

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ABSTRACT

Background: Over the past decade in Nepal, a large number of studies have been carried in a variety of health areas; however whether evidence derived from these studies has been used to inform health policy has not been explored. This study aims to assess the utilization of recommendations from health research in health policy and plans, and to identify the factors that influence utilization of research findings by policy makers' in Nepal.

Methods: Qualitative study incorporating literature review and semi-structured interviews was used. Research reports and health related policies were collected from governmental and non-governmental bodies. Documents were reviewed to identify the utilization of research-based recommendations in health policy and plan formulation. In-depth interviews were conducted with key policy makers and researchers to identify factors that hinder the utilization of research recommendations.

Results: A total of 83 health related research reports were identified, of which 48 had recommendations. Four policies and three plans, from total 21 identified plans and policies, were found to have incorporated recommendations from research. Of the 48 studies that had recommendations, 35 were found to be used in the policy making process. Lack of appropriate communication mechanisms, and concerns related to the quality of research conducted, were the main factors hindering the translation of evidence into policy.

Conclusions: Communication gaps exist between researchers and policy makers, which seem to have impeded the utilization of research-based information and recommendations in decision-making process. Establishing a unit responsible for synthesizing evidences and producing actionable messages for policy makers can improve utilization of research findings.

Keywords: Actionable message; evidence based policy making; Nepal; policy making, utilization of research recommendation.

INTRODUCTION

Evidence derived from research is of little value unless it is put into practice. Health research has been identified as one of the key building blocks of the health system, which can contribute to overall development of the country. Research can be used to inform policymakers about pressing issues; provide them with data and information needed to develop new programs; guide the implementation process; and evaluate programs or

policies.¹

Walt argues that both research and policy-making are logical, rational processes. In theory, researchers ask questions, plan and conduct their studies rigorously, and circulate their results appropriately. Decision-makers then read these reports, understand the results and their implications, and act to correct their course in the direction indicated.² The real world, however, is not so linear. In this context, this study was designed to

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assess and explore the factors influencing the utilization of health research findings in health policy and plans in Nepal.

METHODS

This was a qualitative research involving document review and key informant interview. Analysis of research reports to identify the research based recommendations with possible policy implications was undertaken using a predefined format developed by the research team. Guideline including open ended questions were developed for the in-depth interviews of policy makers and researchers that broadly dealt issues like role of participant in policy making process, process of policy making practiced in Nepal, availability and utilization of researches, challenges in utilization of health research and ways forward for improvement of the utilization of research findings in policy making process. To bring about thick information, key probing issues were pre-identified under each question with flexibility to rephrase the questions and probe further based on the reflection of researchers in the field at the time of interview. The form for document (research reports, articles and policies) review and interview guidelines for researchers and policy makers, used in the study were reviewed by a technical committee that represented academicians, researchers and policy makers.

Data collection was done in four phases. In the first phase, an inventory of health research conducted in Nepal between 2001 and 2006 was prepared obtaining information visiting then Ministry of Health and Population (MOHP, now MOH), research institutions, universities and I/NGOs (International Non Governmental Organizations) who carry health research. Health research conducted by research institutions, UN agencies, bilateral organizations, government, I/NGOs and the individual researchers were included in the study. In addition, research reports available on the website and in library of the Nepal Health Research Council (NHRC) and articles available in PubMed central were also reviewed. In the second phase, policy documents published between 2001 and mid 2007 were collected from MOH and related departments. The policy documents were studied to identify the extent to which research-based recommendations were addressed in the policies linking them to the research reports and articles collected in the first phase. In the third phase, key stakeholders were invited to a consultative workshop to facilitate sharing of findings, and to seek comments and suggestions. Stakeholders included senior officers from MOH, Department of Health Services

(DOHS), chief of research institutions, and freelance researchers. In the last phase of the study, in-depth interviews were conducted with health planners, policy makers and researchers in order to identify obstacles to the utilization of research findings. Interview were conducted with Chief of Planning Division, Chief of Health Sector Reform Unit, Chief of Human Resource in Health Unit in MOH, and the Chief of Nursing Administration and directors of different six divisions in DOHS. Interviews were also conducted with four researchers from research institutes in order to identify the means of, and barriers to, disseminating and communicating the research findings to policy makers and planners. Research participants were selected through purposive sampling, and the sampling of research participants was stopped once information generated was saturated (i.e., based on theory of saturation where sampling process is continued until new ideas appear).

Qualitative data were analyzed manually using a constant comparison method which involved steps including preparation of transcript, reading and re-reading data in order to become familiar with what the data entails, generating initial codes by documenting where and how patterns occur, combining codes into overarching themes. The process of coding and development of theme was constantly iterative process where the initial codes were constantly reshuffled in different themes to make sure that the similar codes come together in broader themes that comprehensively represent similar ideas. Ethical approval for this study was granted by the independent Ethical Review Board of (NHRC). Written informed consent was obtained from each research participants.

RESULTS

A total of 83 health related studies were identified that were conducted in the specified period through the universities and I/NGOs (International Non-Governmental Organizations) and research agencies, were available in NHRC library or Pubmed central. The reports from nearly one third (n=27) included recommendations directly related to health policy including policy level interventions. Other one fourth studies (n=21) had recommendations related to women's health, information, education and communication (IEC) programs and activities related to health service delivery issues, clinical/laboratory service issues, training and human resource development, health research programs. Individual studies had recommendations in more than one area.

Formulating policies and plans is a complex process influenced by various factors including knowledge, information, resources and political ideology. Out of total 83 articles that were included in this study, 48 (58%) had recommendations. The majority (73%) of the recommendations were concerned with improvement of the health programs.

Twenty health related policies, plan or strategies formulated during the study period between 2001 and mid 2007 were considered for the study. Of the 48 reports that included recommendations, recommendations from 35 (73%) were found to be used in the policy making process.

Table 1. Utilization of research recommendations in policy making.

Field	Recommendation	Policy/ plan/strategies addressing recommendation	References
Drug management	Encouraging domestic drug industries producing essential drug	Updated draft of National medicine policy 2007	6, 7
	Regulatory measures to minimize the sales of Non essential drugs		7
	Effective and appropriate dissemination of information to public on use of antibiotic	Updated draft of National medicine policy 2007	8
	Reduction of needless prescription of drug	Good pharmacy practice guideline, consumer awarenessprogramme	8
Women's Health	Providing surgical treatment at regional hospital and non surgical remedies at peripheral health facilities for uterine prolapsed	Three years midterm plan	9
	Implementation of health insurance scheme	Tenth five year plan, three year midterm plan and Nepal Health Sector Implementation Plan	10
Health economics and financing	Implementation of national accounting systems	NHSP-IP	11
	Regulation of financial transparency and record keeping of private health care sector expenditure		12
	Data base of EDP expenditure assistance in the health sector has to be developed and maintained		12, 13
School health and nutrition	Developing policy, to plan, implement, and monitor school health programs and to form school health committees in collaboration with parents and other stakeholders and to create safe environment in the school	National school health and nutrition strategy 2006	14
		The National Nutrition policy and strategy 2004	
Health service delivery	Separate unit in the ministry of health for decentralization	NHSP-IP	15
	Preferential treatment for the poor in the private sector to increase access of poor to health service	midterm three years plan	12
	Access to health services by the poor and the marginalized group especially women	The Free Health Service policy	12, 16-18
	Reduce risk factor, strengthen capacity of personnel and institution to identify risk factor and manage Non Communicable Disease and to have comprehensive health promotion and primary prevention activities, based on the recommendation of the study on surveillance of risk factor	Integrated Non communicable disease prevention and control policy Draft	19
	Develop a medical device act	The health care technology policy was developed in 2006	20
	Efficient and rationale use of the medical devices, development of qualified human resources		

Human resource management	Additional incentives be provided to health workers and volunteers to sustain grass root level health activities	tenth plan and the midterm three year plan	21
	Outsourcing- some of the health services provided, retention of trained health personnel	NHSP-IP	22
	Attractive salary for doctors and other health workers working in geographically isolated areas		22, 23
	Incentive to cover insurance for the employee working in conflict area		16
Safe motherhood	Availability of human resource at the government health facility in the remote areas as a problem	Midterm three year plan	22, 24
	Alternative means to provide service charge for home delivery, transportation cost, and free delivery services at the governmental health facilities to increase access by poor and marginalized women	cost sharing scheme for promoting safe delivery guideline in May 2005	17, 18, 24
	24 hours availability of services at the health facilities, creation of an enabling environment for the mchws, strengthening the information system according to UN process indicators, refresher training for mchws to make them SBA	National Safe Motherhood Plan (2002-2017), SBA policy 2005 , National Safe Motherhood and Newborn Health Long term Plan (NSMNH-LTP) (2006-2017	18, 24-27
	Accessibility and affordability of safe abortion and counseling services be expanded by increasing trained human resources	Midterm three year plan	28, 29
IEC and BCC activity	Integrated approach to health communication	NHSP-IP	28, 30
	Development of IEC and BCC activities for non communicable diseases		19
HIV/ AIDS	IEC and BCC program for the safe motherhood programs and newborn health	National Newborn Health Strategy	21, 29, 30
	Awareness programs for vulnerable groups and young people	Tenth Plan, midterm three year Plan	31-34
Environmental health issues	Recommendation that TB and HIV/AIDS control programs should be worked in close collaboration	NHSP-IP (2004), midterm three year Plan	35
	Monitoring of drinking water	Rural water Supply and Sanitation National Policy 2004 National Drinking Water Quality Standards 2005 and Implementation Directives for National Drinking Water Quality Standards 2005	36
	Government should formulate and enforce laws, regulations, policies and guidelines for effective management of medical wastes	National Health Institution Waste Management Guideline, 2007	37, 38

Poor collection, compilation, documentation and reporting of studies were reported as the most common factors impeding the utilization of research findings at the policy making level. Studies that were available were reported to have been conducted at micro-level, and therefore were believed to have limited use for policy-making at the national level. By contrast, some policy makers revealed that, in their experience, availability of evidence was not a major concern..

“[.....] mostly I participate in the dissemination meetings of research findings, so, I have no problem in accessing the reports.” Divisional Director, DoHS

“I do not have time to search, locate, access and review the relevant literature.” Policy maker, MoH

Relevance was another major factor hindering the utilization of research findings. Participants stated that they perceived that most research findings that are generated were irrelevant to policy-making and did not

necessarily address priority areas. Policymakers noted that many studies were focused on specific groups or regions, and thus were too specific to address national policy needs.

“Many research reports are not appropriate for our country because they are done upon interest of donor and not relevant for our country.” Policy maker, MoH

Trust in the validity of findings was identified by policy makers as another major factor impeding the utilization of research findings. Health researchers agreed with this perception, noting that studies conducted in Nepal are often poorly designed, and therefore are unable to produce valid and reliable results. Research participants also reported that studies did not produce specific and feasible recommendations, and as such they were of limited use when developing policies.

“If I think they are not valid and not relevant, I do not use it for decision making. Some recommendations are too vague and very difficult to implement.” Policy maker, MoH

Translating research recommendations into policy is a time consuming process. Policy makers stated that lengthy reports and publications were less likely to be read. Locating, accessing, and reviewing research was also believed to be a lengthy and time-consuming process, which further hindered the use of evidence in policy making.

“I do not have time to search, locate, access and review the relevant literature.” Policy maker, MoH

Communication between researchers and policy-makers was found lacking. Both groups indicated that there were no regular interaction and discussion due to the lack of a proper health policy research unit under the MOH.

Most of the participants were of the opinion that the government should create a supportive environment for making evidence based policy. This could be achieved by giving priority to health research, making research findings and recommendations easily accessible to the policy-makers, and bridging the communication gap between researchers and policy makers. The creation of digital library and the synthesis of research findings by an organization such as the NHRC were presented as possible options to address the problem of time constraints of policy makers. Regular interaction between researchers and policy makers, encouraging researchers to conduct research in prioritized areas (policy informed evidence), reviewing quality and

establishing monitoring and evaluation section in NHRC to monitor and review quality of health research were suggested as other methods to promote the utilization of research findings by the policy makers.

“MOH should commission a research group or organization to conduct a country specific important and relevant policy research whose findings can be used in decision making and policy formulation.” Researcher

DISCUSSION

Although evidence informed policy making is widely advocated, many health service research findings fail to translate into meaningful outcomes across multiple contexts. In the present study, the utilization of research findings was found to be good despite multiple barriers. In a systematic review of 145 qualitative studies in different countries in which one in three articles were from low and middle income countries, it was found that availability and access to research/improved dissemination, clarity/relevance/reliability of research findings and timing/opportunity as major barrier to utilization of research findings.³ Although the study was confined to essential medicine, a study reported similar barriers.⁴ These factors were also identified as major barriers in utilization of health research findings in context of Nepal.

Availability and access to research was found to facilitate the utilization of research findings in one of the study.³ In line with this finding, another study proposes fostering a research-supportive environment and the centralized collection of research reports, to ensure that evidence is readily available when needed.⁵ In this study, research participants suggested establishing a digital library, and proactively synthesizing research findings in order to address the problem of availability, accessibility and time constraints. Policy makers also suggested developing a publication and dissemination mechanism to facilitate interaction and discussion between policy makers and researchers.

In 49 out of 145 studies included in the review, reliability and accuracy of the research was seen to facilitate the use of research findings in policy development.³ Similarly, in this study, policy makers remarked that they did not trust the reliability of research produced, and thus were disinclined to incorporate the research into policies. Research participants suggested establishing a Monitoring and Evaluation section in NHRC that ensure reliability of the research findings.

This study could not give the clear picture of whether

the research was used in reality because its use is not always documented. Furthermore, we could not be sure that the research has captured all the instances where research is translated into policy. More specifically the health policy documents failed to refer the contribution of the particular studies with a few exceptions. The findings of these studies may not reflect present situation of utilization of health research findings on policy and plans but provide baseline for further studies. However, the findings of this study can be useful for policy makers and researchers' willing to work in evidence translation as this research is probably the first of its kind conducted in Nepal. As this study was conducted a decade before, the scenario of utilization of research based recommendation in policy and plan might have changed but still there are not such studies yet published in Nepal. Hence, this study could be an important baseline for further studies on utilization of health research findings in Nepal.

CONCLUSIONS

In this study, 42% of all research reports found had been used to develop policy or health plans and programme. Of the 48 articles or reports that had recommendations, findings from 35 of these had been used. However, it is imprecise to conclude that the findings and recommendations of health research have been utilized in formulation of health policy and plan of the country to its fullest extent.

Poor availability of the research finding was cited as most common factor impeding the utilization of research findings. Research participants reported the lack of properly functioning strong mechanism for the dissemination of research findings among policy makers and concerned stakeholders currently exists, and this was reported as another important barrier for utilization of research findings in decision making process. Other factors including time constraints, limited interaction between researcher and policy makers, lack of relevance of research findings or lack of policy informed evidences or relevance of researches and lack of trust on the findings of research related to poor design were other factors associated with non-utilization or limited utilization of research findings.

To further improve the utilization of research findings, the government should consider establishing a Unit of Evidence Synthesis within the NHRC for accessing research reports and disseminating research findings. Health researchers should be encouraged to continuously brief to policy-makers on the research process, findings

and recommendations to ensure that it is reflected in the policy and health service delivery. Finally, externally funded research projects should be align with the national health research priorities of Nepal and can contribute for betterment of health of Nepalese people.

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REFERENCES

1. Hanney SR, Gonzalez-Block MA, Buxton MJ, Kogan M. The utilization of health research in policy-making: concepts, examples and methods of assessment. *Health Res Policy Sys.* 2003;1:2.
2. Walt G. *Health Policy: An Introduction to Process and Power.* London: Zed Books; 2004.
3. Oliver K, Innvar S, Lorenc T, Woodman J, Thomas J. A systematic review of barriers to and facilitators of the use of evidence by policymakers. *BMC Health Serv Res.* 2014;14:2.
4. Albert MA, Fretheim A, Maïga D. Factors influencing the utilization of research findings by health policy-makers in a developing country: the selection of Mali's essential medicines. *Health Res Policy Sys.* 2007;5:2.
5. Grimshaw JM, Eccles MP, Lavis JN, Hill SJ, Squires JE. Knowledge translation of research findings. *Implement Sci.* 2012;7:50.
6. Kafle K. Report on Consumption and Quantification of modern drugs for human use in Nepal Consumption in Nepal. Kathmandu, Nepal: Department of Drug Administration, Ministry of Health and Population, Government of Nepal. 2001.
7. Kafle K, Karki S, Thapa P. Report on Quantification of drugs in Nepal. Kathmandu, Nepal: Department of Drug Administration, Ministry of Health and Population, Government of Nepal. 2006.
8. Pokharel A, Palikhe N, Shrestha N. A report on practice of use of antibiotics in government hospitals and private clinics of Kathmandu Valley: A prospective study. Kathmandu: Nepal Health Research Council. 2001.
9. Rural Womens Development and Unity Centre. A Study on Safe Motherhood Caused behind Uterus Prolapse Amongst women in 3 VDCs of Dadeldhura District. Kathmandu: Nepal Health Research Council. 2004.

10. Shakya KM. Willingness of Community people to pay for Health Insurance in Nepal. Kathmandu: Nepal Health Research Council. 2003.
11. Maskey N, Sharma B, Adhikari S. Public Health Care Expenditure in Nepal: Review, Analysis and Assessment. Kathmandu: Nepal Health research Council. 2003.
12. Sharma B, Maskey N, Adhikari S. Public-Private- NGO partnership in Health Services: Review, Assessment and Recommendations from a focused study in the Central Region of Nepal. Kathmandu: Nepal Health research Council. 2004.
13. Health Economics and Financing Unit. Public expenditure review of the health sector: Human Resource and Financial Management Division, Ministry of health and Population, Government of Nepal. 2004.
14. Baidya P, Chhetri H, Devkota B. A study on health needs Assessment and School Health program in Nepal. Kathmandu, Nepal: Nepal Health research Council, Government of Nepal. 2001.
15. Nepal Health Research Council. Evaluation of Medical/ Health Institutes/Agencies Designated as Research Centers in Nepal. Kathmandu: Ministry of Health and Population, Government of Nepal. 2005.
16. Devkota MD. An Assessment on Impact of Conflict on Delivery of Health Services: The World Bank, Health Nutrition and Population. 2005.
17. Borghi J, Ensor T, Neupane B, Tiwarl S. Coping with burden of the costs of maternal health. Kathmandu: Nepal Safer Motherhood Project, Family Health Division, Government of Nepal and Options. 2004.
18. Thomas D, KC IM, Devkota B. Increasing access to EOC. A review of progress and process. Kathmandu: Nepal Safer Motherhood Project, Family Health Division, Government of Nepal and Options. 2004.
19. Shrestha UK, Singh DL, Bhattarai MD. The prevalence of hypertension and diabetes defined by fasting and 2-h plasma glucose criteria in urban Nepal. *Diabet Med.* 2006 Oct;23(10):1130-5.
20. Gyawali K, Karki D. Diffusion of High Medical Equipments in Nepal: Implication to Utilization and Access. Kathmandu: Nepal Health Research Council, Government of Nepal. 2001.
21. Ahmad M. Study on factors affecting family planning practices among Muslim women of Reproductive age group in Banke District. Kathmandu: Nepal Health Research Council. 2001.
22. Marasani B. Human Resources for Health Development Policy in Nepal. Kathmandu: Nepal Health Research Council, Government of Nepal. 2003.
23. Subedi D, Chaudhary G. A study of the factors due to which doctors do not go and work in the periphery. Kathmandu: Nepal Health Research Council, Government of Nepal. 2001.
24. Devkota MD. Utilization of emergency obstetric care in selected districts of Nepal: Family Health Division, Government of Nepal 2004.
25. Ministry of Health and Population, World Health Organization. In-Depth Country Assessment of Nursing and Midwifery Workforce Management. Kathmandu. 2002.
26. KC V, Basnet I, Chetry S. Report on Performance on evaluation of graduates of post basic diploma midwifery course. Kathmandu: Ministry of Health and Population, Government of Nepal. 2002.
27. Organisation Development Centre. Quality of Care Assessment Study For Nepal Safer Motherhood Project (NSMP) and Family Health Division (FHD). Kathmandu. 2004.
28. CREHPA. A Study on Determinants and Consequences of Unintended Pregnancies among Young Couples in Nepal. Kathmandu: Department for International Development. 2006.
29. Family Health Division, CREHPA. Nepal Comprehensive Abortion Care (CAC) National Facility –Based Abortion Study 2006. Kathmandu: Ministry of Health and Population, Government of Nepal. 2006
30. National Health Education Information and Communication Center. Formative Research on BCC/ IEC Programmes in Health. Kathmandu: Department of Health Services, Ministry of Health and Population, Government of Nepal. 2006.
31. NEW ERA, SACTs. HIV/AIDS prevalence and risk factors among migrant and non-migrant males of Achham and Kailali Districts in Far-Western Nepal. Kathmandu Nepal; Kathmandu: Family health International. 2002.
32. NEW ERA. Integrated Bio-behavioral Survey (IBBS) among Female Sex Workers and Behavioral Surveillance Survey (BSS) among Clients in Kathamdu Valley – 2004. Kathmandu: Family Health International. 2005.
33. NEW ERA. Integrated Bio-behavioral Survey (IBBS) among Female Sex Workers and Behavioral Surveillance Survey (BSS) among Clients in Kathamdu Valley – 2004. Kathmandu: FHI. 2004.
34. NEW ERA. Integrated Bio-behavioral Survey (IBBS) among Female Sex Workers and Behavioral Surveillance Survey (BSS) among Clients in Pokhara Valley Kathmandu: FHI. 2006.
35. Dhungana G, Ghimire P, Rijal B, Sharma S. Prevalence of Tuberculosis among HIV infected persons of Kathmandu. Kathmandu, Nepal; . Kathmandu: Nepal Health Research Council, Government of Nepal. 2005.
36. Pradhan B, Pradhan P, Pradhanang S, Kayastha B. Action-oriented study on water quality and water borne disease in Bungmati VDC, Lalitpur district Nepal. . Kathmandu: Nepal Health Research Council, Government of Nepal. 2003.
37. Sapkota K, Adhikari N, Devkota R. A Survey of hospital waste management in Bir Hospital, Patan Hospital and Tribhuwan University Teaching Hospital. Kathmandu: Nepal Health Research Council, Government of Nepal.

2003.

38. Paudel K, Acharya A. Follow - up study on adoption of National Health Care Waste Management Guidelines at Health Care Institution at Kathmandu, Nepal; Kathmandu: Nepal Health Research Council, Government of Nepal. 2005.