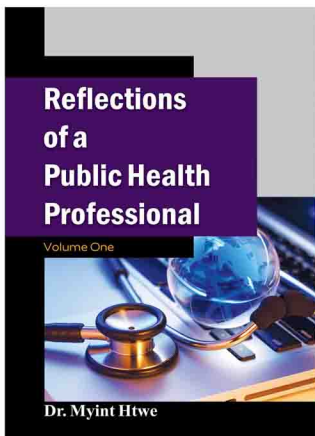


# Research and Health Policy Formulation



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## 5. Research and health policy formulation

*(This article is based on the technical discourse given at the Department of Medical Research, Yangon, on 15 December 2010).*

This article is written in order to stimulate the minds of young researchers so that more interest is generated in the area of policy research, policy analysis, role of research in policy making/formulation, policy reformulation and policy evaluation. In this article, policy refers to health policy unless otherwise specified.

This article will focus on (a) role of research in policy making/formulation; (b) conditions that need to be fulfilled in order that health research can make the policy of the country practical, relevant, rational, forward looking, dynamic and especially reflecting the current needs of the country; (c) some epidemiologic tools/methods that can be used in policy research/analysis and its caveat; (d) steps in health policy research (analysis) and policy making; and (e) constraints generally encountered in developing countries in policy making.

### ***Introduction***

Health policy is generally defined as a *broad statement of goals, objectives, and means that create the framework of health care activities* in the country (Grindle, 1980). Health policy research/analysis is a process of scientific investigation where methodologies and principles from health and social sciences are applied in order to either formulate or reformulate or evaluate the health policy. The principles, methods and approaches used in health systems research are also applicable in health policy research.

The importance of sound and rational health policy making is recognized by an increasing number of bodies. Consideration of research findings in policy making will result in policies which may eventually lead to desired outcomes,

including health gains (Hanney et al., 2003). Therefore, there is a growing need of encouraging *partnerships between researchers and policy makers*. It is not achieved easily because those doing research and those who might be able to use it are from different cultures. The policy makers are at higher hierarchical positions who generally do not want to be influenced by researchers.

The interface between researchers and policy makers must be made more permeable while balancing the interests of these two groups (Hanney et al., 2006). It is important to establish a long-term linkage system between researchers and policy makers. Researchers and epidemiologists should also work hand in hand in areas such as desktop review of policy-related documents, documentary analysis, key informant interviews, focus group discussions and other appropriate methods of information gathering. It can yield strong evidence in a short span of time whereby the policy can be modified.

One should note that there is reciprocity between research and health policy. A good example of this type of reciprocity is seen in the written *statement of National Health Research Policy of Nepal*, i.e., “To augment health researches in the priority areas set by National Health Policy and to provide advice based on evidence to His Majesty’s Government of Nepal for formulating appropriate health policies”. One of the *operational strategies* is “A joint team of Nepal Health Research Council and the Ministry of Health will be formed to promote health research in policy development, priority setting, research process, dissemination and utilization of research findings”. This type of interconnectedness between research policy, health policy and research strategy statements are very conducive to augment the role of health research in health policy development.

***Role of research in policy making and how to promote it***

Policy makers require reliable information on current and future scenarios of health status of the population and its determinants and trends. In addition, the likely implications of policy interactions, i.e., *health policy versus health research policy versus sectorial development policies (housing policy, energy policy, agricultural policy, industrial policy) versus economic policies* need to be exposed to policy makers very clearly and in simple terms. Generation of this information and its concomitant review and analysis can be facilitated through the use of methods and principles from several social sciences disciplines as well as biological and medical sciences especially epidemiology.

Health policy research/analysis is usually based on review of existing research findings, expert judgement and even outcome of studies using modelling techniques (Shortell and Solomon, 1982). Epidemiologic methods are very useful in looking into each step of the policy cycle or policy process (Walt, 1994). In fact, when policy is about to be formulated, one needs to follow the simple policy process (Walt, 1994) such as *(a) problem identification and issues recognition (b) policy formulation (c) policy implementation (d) policy evaluation*.

A policy or strategy should be evidence-based as scarce resources available in developing countries are being utilized in implementing the policy using appropriate strategy. One needs to be very careful in formulating a policy as it may take several years before such policy (decision) can be evaluated (Holland & Wainwright, 1979). One should not forget that several research studies had already been carried out by the Department of Medical Research, where the findings had significant policy implications. The findings of these important research studies could be reviewed *in toto* and due consideration could be given when a national health policy is formulated or to be reformulated.

The World Health Assembly, in 1990, urged Member States, particularly developing countries, to create or strengthen mechanisms which would enable consideration of research findings in policy making and health systems operations. It also invited the research community to promote communication of findings to support decision making and the resource allocation process (WHA 43.19). In line with the World Health Assembly resolution, one needs to promote the role of health research in policy making. When researchers present their findings in a research congress or seminars, its relevance and linkages to the services of existing national health care delivery systems and national health policy should be emphasized to the extent possible. Researchers should also consult decision makers and implementers (service departments of Ministry of Health) when a research study topic is identified. Generally, the researchers tend to work by themselves. Therefore, research relevance to national priorities might be overlooked.

### ***Minimal questions to be asked by policy makers before policy making***

There are many good examples of how research can play an important role in public health policy making. In such a situation, policy makers generally ask researchers to synthesize the following information. The information could be obtained from findings of several research studies already carried out under different scenarios or conditions. If research findings are not available or if the findings are inconclusive, one may carry out quick research studies or if the issue is urgent, one may get information through key informant interviews or by conducting focus group discussions or Technical Advisory Group meetings or through many other means.

- (a) *How large (in terms of time, place and persons) and important (severity or intensity or mortality or socioeconomic implications or political*

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*ramifications or increasing trend) is the said public health problem in the country?*

- (b) If it is a real problem, what is the feasibility of implementing a programme and what is the short-term and long-term cost of implementing the policy/strategies/programmes for that problem in the country?*
- (c) What type of policy decision is to be made to select appropriate and cost effective interventions? What untoward implications will affect the general public if the selected intervention is implemented? This is concerned with public health ethics.*
- (d) What is the current situation of human resource for health, health infrastructure and many other components that are required to implement the policy?*

The above information could be generated from research studies already carried out in the country or elsewhere. In other words, *research-informed policy or evidence-based policy* is the one which will have long-term beneficial effects for the population at large.

### ***Need for interaction between policy makers and senior researchers***

Research can provide several aspects of successful or failed policies and the reasons for success or failure. Policy options can also be proposed by the researchers. These are important inputs to policy making so that the policy finally put in place for the country is the most appropriate and rational one. Throughout the implementation of the policy, researchers can also play a very important role in doing *process evaluation, outcome evaluation and cost effectiveness evaluation*. It should be emphasized that systematic reviews of research findings on a policy or strategy or programme would provide the strongest basis or inputs into making the right policy decisions. Hence, the *role*

*of research in policy formulation is sine qua non.*

It is, therefore, desirable that policy makers or decision makers become more involved or interested in research and interact closely with senior researchers and research managers. Policy makers should also be proactive in advising a specific research domain to be given due attention so that there is a sense of ownership on the findings of research, which could be used in policy making. A platform or forum needs to be created to facilitate the proposed interaction between senior researchers, research managers and policy makers. However, research evidence is just one aspect in the domain of policy making, although an important one. *Political, financial, social and population voices play an equally important role.*

### ***Is the health policy in place relevant and rational?***

Health policy research promotes a way of looking into the policy process and appropriateness of the policy in place. The basic question is, “Has the policy achieved its desired effects? If not, what aspects of it should be modified or amended? If the impact is not noticeable, health policy researchers must ask the following basic questions in order to arrive at the correct diagnosis;

- *Are managerial/administrative aspects of the health system at fault?*
- *Are health-related policies not supportive of the health policy?*
- *Are programme strategies not relevant to the health policy itself?*
- *Is the policy itself not explicit or irrelevant or not in consonance with the existing health infrastructure and human resources?*
- *Do policy makers and senior administrators ignore the findings of policy-related research projects which challenge current health policy?*

***Conditions that need to be fulfilled to augment the role of health research in policy making***

In order that health research facilitates policy making, the following prerequisites must be available or fulfilled:

- *National health research policy itself must be conducive to development of a good research culture in the research institution or country. Good research culture can lead to availability of motivated and capable researchers in the country, who can undertake policy research.*
- *Appropriate utilization of research findings should be the norm of research institutions in the country. Research outcomes should be seriously considered especially if these are related to health policy.*
- *The overall research oversight team of the research institution must be proactive and fully functional.*
- *National health research policy must also be forward looking, responsive, dynamic and broad enough to cater to contemporary and future needs of the country especially in areas of health promotion, prevention, treatment and rehabilitation.*
- *National health research framework, based on national health research policy, which is again based on national health policy must include activities related to policy research and analysis.*
- *Preferably, there must be a “health policy research team” or “policy analysis” team led by a senior research manager (Director-General of Medical Research in Myanmar’s context). Team members may include a senior researcher, an epidemiologist, an economist, a health economist, a sociologist, a researcher with experience in doing policy analysis, a statistician, a health planner, and an administrator. This team should be preferably located in the Ministry of Health and not at the departmental or institutional level. The team can function under the direct strategic supervision of the Health Minister or Deputy Health Minister.*



***Some epidemiologic tools/methods that can be applied in policy research (Spasoff, 1999)***

- *Demographic methods (life table analysis, potential years of life lost (PYLL), disability adjusted life years (DALYs), quality adjusted life years (QALYs), quality adjusted life expectancy (QALE), health adjusted life expectancy (HALE), etc.)*
- *Epidemiologic indicators of effect (relative risk (RR), attributable risk (AR), population attributable risk (PAR), odds ratio (OR), etc.) Various types of epidemiologic study design (cohort, case control, cross sectional studies, etc.)*
- *Methods used in economic burden of ill health (direct cost: cost of health care, indirect cost: cost due to morbidity and premature mortality, etc.)*
- *Methods used in health need assessment (precede-proceed model, triangulation, etc.)*
- *Risk and risk assessment methods (environmental risk assessment, behavioral risk assessment, etc.)*
- *Methods used in assessment of potential interventions (randomized controlled trials, community intervention trials)*
- *Synthesizing evidence (systematic reviews, meta-analysis, etc.)*
- *Methods used in assessing suitability for policy (efficacy, effectiveness, applicability, efficiency, feasibility, potential coverage)*
- *Various combinations of research designs for evaluating health interventions.*

The task of conducting policy analysis using epidemiologic tools is exceedingly complex. Interpretation of results and overall inference should be given very carefully. The ultimate aim is to achieve, as much as possible, “evidence-based policy making” or “research-informed policy making”, so that

policy at hand is really relevant, rational and beneficial to the people of the country. The above are some of the issues related to the policy process which can be dealt with by conducting research using various epidemiological methods, both descriptive and analytic.

### ***Indicators to depict the situation vis-à-vis health policy***

Concurrently, it will be useful to review the following situations as part of the policy review using epidemiologic techniques:

- (a) *Assessing the health status of the population, through conceptualization and measurement – an essential impact indicator to assess the effectiveness of the health policy;*
- (b) *Assessing health needs and risks and to cross reference with the existing policies (health and research) and strategies – an indicator to show whether health policy is addressing problems or issues facing the people;*
- (c) *Evaluating and synthesizing evidence regarding potential interventions (successes and failures) in relation to strategies proposed according to the policy – an indicator to elucidate whether the current policy together with its inherent strategies and interventions is acceptable in light of the prevailing situation;*
- (d) *Analyzing differential effects of various interventions in relation to the strategies proposed according to the policy – an indicator to be used in modifying the existing policy, i.e., retrograde analysis;*
- (e) *Evaluating geographic variations in health status and health system performance and pinpointing the necessity for policy review – an indicator for policy change in the context of geographic consideration; and*
- (f) *Evaluating the resource allocation for different health strategies and interventions – an indicator of overall review of policy change.*

### ***Caveats in using epidemiologic tools/methods***

- *One needs to be careful in adapting or adopting the results of epidemiologic research studies. Applying the results in toto or without considering the linkages to the determining factors, which are sometimes beyond our control, may lead to policy failure. Because analytical epidemiology is usually conducted in carefully selected situations (Spasoff, 1999).*
- *Sometimes it is difficult to convince the policy makers regarding the findings of epidemiological research studies pertaining to policy. They may be too subjective to the power of private or vested interest (Terris, 1980). Researchers should be aware of this scenario.*
- *Careful attention should be given when applying the results of mathematical models for policy change. In fact, most complicated mathematical models are really simplistic when considered in a real life scenario in light of social and biological realities. The assumptions made in the models may also be unrealistic.*
- *When population health data are interpreted in the context of existing policy, the strength of association with the determinants, regional variation and pattern, data quality, consistency with other findings, trend pattern, etc. (Rosen, 1985) need to be considered.*
- *In essence, it would be prudent not to make policy recommendations based on the results of one research study. Because, the health status of the population or performance of the health system is the outcome of interactions of a multitude of attributes.*
- *It is also important to note that there is a basic difference in the opinion seeking pattern between policy makers and epidemiologists/researchers. Policy makers need clear cut advice and answers based on available information. Epidemiologists/researchers prefer interval estimates*

*instead of simple answer or yes or no decisions (Spasoff, 1999). A compromise should be reached to narrow the gap in this aspect, when policy is formulated.*

### ***Steps in health policy research (analysis) and policy making***

The following are basic steps in health policy research/analysis generally carried out in a country. Justification of the need for health policy research arises from economic pressure, political pressure or demand from the public. Justification needs to be scrutinized in terms of rationality or appropriateness. Once justified, review of availability of technical and administrative know-how, including infrastructure to conduct the policy review process should be made. Involvement of professionals from disciplines outside the health domain such as health economists, social scientists, statisticians, experienced and well balanced politicians, etc., is essential.

Preparatory activities are (a) formation of a health policy research steering committee and core technical group; (b) review and analysis of available literature (case studies, epidemics of diseases or conditions, case reports, evaluation reports, policy related research studies, etc.); (c) review and analysis of *modus operandi* of the health care system, health infrastructure, including human resource for health at different levels of the health care system, etc. Review of policy environment such as interrelationship with policies of health-related ministries, including identification of hindering and facilitating factors, dialogue with focal points or key informants from health and health-related ministries.

Health policy research process will (a) identify and pinpoint issues to be tackled and probable hindering and facilitating factors; (b) identify new channels or strategies to alleviate health problems as well as collaborating and supporting mechanisms; (c) develop flow diagrams for implementation of different policy at different levels of the health care delivery system using the

strategies envisaged under each policy statement; (d) identify a broad range of goals and objectives in line with existing or modified policies; and (e) identify policy options and submit them to the steering committee, together with expected implications of each option. The draft version of the policy statement, as approved by the steering committee, should then be submitted to the Minister for Health for guidance and for further submission to the highest authority (National Health Committee) for consideration and final approval.

### ***Constraints generally observed in developing countries in policy making***

Generally, there are several research projects being carried out in any developing country. The proportion of research on policy or policy-related issues is small due to its sensitivity. Another reason is, even if the research shows that a policy needs to be modified or reformulated, research managers generally ignore to put it up to the highest level due to several reasons. Sometimes, the findings of policy research are not properly propagated or presented and therefore the higher authorities are not aware of it.

Interdisciplinary and inter-sectorial linkages are generally not reflected in policy and strategy of the country and thereby its importance is lost. Higher level policy makers are generally not properly primed regarding the crucial role that health research can play in improving the health policy and thereby the overall health status of the people. The important linkage between health research and implementation of health services and programmes is generally not well recognized and thereby due attention is not given. The constraints alluded to earlier can be adjusted or ironed out if higher authorities support and accept the fact that health research is essential to make health policy suitable to the country.

## **Conclusion**

Health research can facilitate formulation or reformulation of a sound, practical, relevant, and implementable health policy. Health research can detect the flaws and weaknesses in the existing health policy in light of the system environment in which the policy is being implemented. Generally, in developing countries, policy is formulated without any systematic follow-up or evaluation. Health research can help develop policy assessment indicators which may be required to change the course of action whenever and wherever necessary. Having a sound health policy will lead to a health care system which is effective, efficient, adaptable and responsive to the needs of the country.

Role of research in policy making is all the more important as countries are in a state of epidemiological and socioeconomic transition. Thus the existing policy needs to be reviewed as to its appropriateness and applicability in the context of changing situations. In the era of reforms in health care concepts, orientation towards market economy, dwindling resources and the competitive nature of resource allocation for different ministries, health policy must be responsive to the need of the contemporary situation.

One needs to promote healthy public policies through a strong national health research policy. When the role of research in policy making is considered, researchers need to keep in mind the importance of applying a systems approach and systems thinking through the use of epidemiologic thought process. It is suggested to conduct a national-level seminar for in-depth discussion on “Role of Research in National Health Development” based on strong national health policy and national health research policy. Last but not the least, one may think of how the research activities of departments of Medical Research can be linked more strongly with national health development plans and programmes of service departments under the Ministry of Health.

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