

Exploring Barriers to Research Utilization in Policy Formulation in Egypt: Researchers' Perspectives

Alaa Abou-Zeid, Yasmin Galal, Maysa Shawky and Maha El-Rabbat

Department of Public Health, Faculty of Medicine, Cairo University
alaabouzeid@yahoo.com

Abstract: Background: Research findings are increasingly being recognized as important inputs in health policy formulation. The factors influencing the utilization of health research by health policy-makers were explored in this study. Objectives: The purpose of this study is to understand the perspectives and attitudes of researchers toward the use and impact of research in the performance of the health sector in Egypt. Methodology: This is a cross-sectional exploratory semi-quantitative study. Seventy five health researchers expressed their attitudes and perspectives regarding the extent of research utilization in health policy formulation. Results: Several factors emerged from the study that appear to be influencing the utilization of health research findings by policy-makers. These factors include: lack of communication between researchers and policy-makers, lack of financial resources and low demand for scientific evidence by policy-makers. Conclusion: Improving the transfer of research to policy will require efforts on behalf of researchers, decision-makers and donor agencies. This will include: strengthening the collaboration between researchers and policy-makers, increased dissemination and access to relevant research, and allocating more funds to the health research process and dissemination activities.

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1. Introduction

Health research faces a number of challenges especially in developing countries, including under-investment, lack of capacity, lack of political demand, and inadequate utilization and poor dissemination of results (WHO, 2004). Not least of the challenges is the apparent remoteness of the policy making process from researchers and from the health priorities in developing countries (Vincent, 2006). These factors collectively have led to a gap between research and its role in influencing health policy making (AHPSR, 2004). This gap has been highlighted since 1990 and several attempts have been made to address it from various aspects such as strengthening research capacity, promotion of investments in health research, and the establishment of global and national research fora (COHRED, 1990).

Over the last few years, there has been growing realization among both health researchers and policy makers to carry out research that is helpful and needed to improve the management decisions and performance of national health systems. This realization is further supported by several global initiatives such as The Commission on Health for Development (COHRED); The Global Forum for Health Research (GFHR); The Alliance for Health Policy and Systems Research (AHPSR); and Getting Research into Policy and Practice (GRIPP) which is a collaboration of research programs concerned with operations and health systems research (Vincent, 2006).

Since 2007 the Alliance HPSR has been awarding grants to support national processes for evidence-informed policy-making. With the objective of facilitating the use of research evidence in the policy-making process in developing countries (AHPSR, 2010).

However, despite identification of the problem and willingness to solve it, there is not enough scientific knowledge which reveals why policy-makers are not using available information generated from research to guide the policy making process and planning decisions (Haines *et al.*, 2004). In 2006, the World Health Organization started an international study to explore the demand for health research by national policy-makers in some countries. This study did not include Egypt and – more importantly - did not explore the researchers' views regarding this issue.

This study was done building on previous and existing work to focus attention on attitudes and perspectives of researchers in Egypt regarding the translation of knowledge into action to improve health.

2. Subjects and Methods:

This is a semi-quantitative cross-sectional study to explore researchers' attitudes and perspectives regarding the barriers, pattern and extent of health research utilization by policy makers in health policy formulation. Study participants were selected using a convenience sampling technique. Selection criteria

included mid-career and senior researchers of both genders from different research institutions who had previously conducted health systems (applied) research. We included researchers from 6 Universities, Ministry of Health and Population (MOHP), 2 governmental research institutions and 2 non-governmental research centers. A total of 75 researchers from 8 different medical specialties took part in the study.

The data were collected using an in-depth interview technique. A pre-coded pilot-tested semi-structured questionnaire was used to collect information from researchers. Most of the questions were close-ended with some open-ended questions. The duration of the interview ranged from 45 - 75 minutes.

The questionnaire included 3 sections. First section included a set of demographic questions, which was used to collect standardized information from all researchers such as affiliations, specialties and academic positions. Second section included a set of "core questions" which was used as a quantitative method for data collection and it was stated in the close-ended and multiple-choice questions. The topics addressed in that section included importance of health research in the policy making process in Egypt, the relevance of health research to policy makers, the factors that could bridge the gap between health system research and the policy making process. The Third section included a set of questions, which was used as a qualitative method for data collection. Participants were asked about experience in conducting health systems research, possible causes for failure to translate knowledge into policy and their suggestions of possible ways to fill the institutional gap between research and policy.

Data was collected over nearly 6 months during 2007 - 2008 and interviews were scheduled according to the availability of researchers.

Data analysis:

Two methods were used to analyze quantitative and qualitative data separately. Quantitative data analysis was done for all completed questionnaires; they were revised for completeness, and logical consistency. Pre-coded data was entered into the computer using Microsoft Office Excel for Windows, 2007. Data were then double checked and transferred to the Statistical Package of Social Science, Version 15 (SPSS-V15). Mean and standard deviation were used to describe numerical data while frequency and percent were used to describe categorical data. Chi square test was used to estimate association between categorical variables.

For qualitative data, open-ended questions were analyzed and coding of some responses was done. Information obtained was compiled in a

comprehensive manner to give directions to perspectives of interviewed researchers

3. Results:

In this study, we explored the opinion of 75 mid-career and senior researchers from 11 different research institutions regarding knowledge translation into policies and way forward.

Most of the responders were professors (66.7%). More than half of them (61.3%) were from the public health field and 42.7% of them have more than 30 years of work experience in their medical specialty. Percent of published research was higher for researches conducted by staff members, which might be partly degree oriented (un-tabulated data).

The minimum period of work experience was 8 years, and the maximum was 45 years, with a mean of 26.1 years. The minimum number of researches conducted by a responder was 4, maximum was 250 with a mean of 44.3. The average number of published researches was 34.5 and the average number of applied research was 29.3 researches (Table 1).

Table (1): Experience of interviewed researchers in conducting and publishing research and having their research applied

	Mean	±S.D	Maximum	Minimum
Total period of work experience (years)	26.1	±9.6	45	8
Total No. of research conducted	44.3	±44.3	250	4
No. of published research	34.5	±34.5	180	2
No. of applied research	29.3	±35.2	200	1

Findings of the current study revealed that the higher the academic position of the interviewed researchers the consistently higher the number of published research (un-tabulated data).

Researchers were requested to give their views regarding possible factors that may influence the translation of research findings into policy. The availability of funds to support the implementation of the findings ranked as the most important factor (90.7%) affecting the policy-making process. This was followed by political interests (81.3%) and the personal preference of policy-makers (53.3%). Surprisingly, public interest (22.7%) and reaching the neediest population (20.0%) as influential factors for policy formulation ranked least as indicated by the interviewed researchers (Table 2).

Table (2): Possible enabling factors that may influence the policy making process from the interviewed researchers' perspectives

Possible factors influencing policy-making	Number (n = 75)	Percent (%)
Availability of funds	68	90.7
Political interests	61	81.3
Personal preference of policy-makers	40	53.3
Cultural factors	35	46.7
Media interest	34	45.3
Cost-benefit of the intervention	30	40.0
Public preference	17	22.7
Target beneficiaries (to reach the needy)	15	20.0
Others	4	5.3

Forty-eight (64%) of the interviewed researchers reported that policy-makers had utilized their researches into policy at least once in the past. Forty four (58.7%) of those researchers took the initiative and communicated their research results to policy-makers. A significant association between informing policy-makers about research results and research utilization in health policy-making was found (p -value<0.001) (data not presented).

Regarding the perception of the interviewed researchers; whether there are special situations that make policy-makers more willing to use research results; the majority of them (93.3%) agreed that there are special situations where policy-makers are more willing to use research results. Those situations are: during disasters (91.4%), issues affecting the public opinion and/or media (45.7%), and decisions involving big funds (44.3%). Issues of public health importance such as: sensitive population groups, finding solutions for specific problems and huge population groups were priority issues perceived by only 38.6%, 37.1% and 21.4% of interviewed researchers respectively (Table 3).

Table (3): Situations that make policy-makers more willing to use research results: interviewed researchers' perspectives

Situations where policy-makers are more willing to use research results	Number = 70	Percent (%)
During disasters	64	91.4
Issues affecting public opinion and/or media	32	45.7
Decisions involving big funds	31	44.3
Taking decisions regarding politically sensitive issues	29	41.4
Decisions involving sensitive population groups	27	38.6
Whenever there are no clear solutions regarding specific problems	26	37.1
Decisions involving huge population groups	15	21.4
Others	2	2.8

Lack of communication between researchers and policy-makers was stated by 90.7% of the interviewed researchers as one of the most important factors that hinders using research results in the policy-making process. They mentioned facing problems in identifying policy-makers to whom research outputs should be disseminated. This was followed by political and/or financial reasons which were stated by 60% of interviewed researchers (un-tabulated data).

The majority of interviewed researchers (80%) believed that knowledge sharing and strengthening the collaboration between researchers and policy makers through innovative methods are the most important factors that could facilitate research utilization into evidence-based policy. This was followed by availability of funds for knowledge translation of research results into policy (60%) and political will and interest of policy makers in the topic of research (60%). Some researchers (44.0%) also indicated that if policy makers suggest the research topic and /or if researchers communicate their research activities to policy makers during conducting research then these will be favourable factors for policy makers to utilize research results.

Political mapping and being aware of the sociopolitical environment was mentioned by 40% of responders as favourable factors for knowledge translation. Other mentioned factors by 3 responders included: establishment of a research support unit in the Ministry of Health and Population, arrangement of fora and seminars through which policy-makers and researchers could meet and talk to identify information needs for both of them and decentralization of the policy-making process (Table 4).

Table (4): Factors enhancing research utilization by policy-makers as suggested by interviewed researchers

Important factors for knowledge translation into policy	Number (N = 75)	Percent (%)
Innovative ways of knowledge sharing between researchers and policy-makers	60	80.0
Availability of funds for knowledge translation	45	60.0
Political will	45	60.0
Policy makers suggest research topic.	33	44.0
Researchers communicate with policy makers during research.	33	44.0
Political mapping and understanding of the sociopolitical environment	30	40.0
Fast process of knowledge production and synthesis	25	33.0
Others	3	4.0

Responders were then asked about their opinion regarding best ways for informing policy makers about evidence that may be utilized into policy. Nearly half (50.7%) of the interviewed researchers believed that knowledge convening is one of the best ways of informing policy-makers about availability of evidence. While less than half (45.3%) believed that researchers themselves should communicate research results to policy makers, mainly through personal communication and dissemination seminars. Mass media represented by 44% of the interviewed researchers a preferred way for informing policy-makers about research results. Forty percent (40%) of the interviewed researchers believed that policy-makers themselves should look themselves for the evidence as part of their decision making process (Table 5).

Table (5): Best ways of informing policy-makers about the presence of evidence that helps in decision making from the interviewed researchers' perspectives

Best ways of informing policy makers about the presence of evidence that help in decision making	Number (n = 75)	Percent (%)
Knowledge conveners convey research results	38	50.7
Researchers communicate research results to policy-makers	34	45.3
Mass media communicate research results to policy-makers	33	44.0
Policy-makers themselves look for evidence	30	40.0
Websites	3	4.0

Qualitative data analysis results:

Participants offered comments in response to many issues addressed during the interviews.

Participation in research projects and its importance:

By revising the applied research or projects that the interviewed researchers have conducted, it was clear that most interviewed Public Health researchers conducted previously health systems research in the following topics: quality, disease management, evaluation of programs and patients' satisfaction regarding provided health services.

The majority of interviewed researchers agreed that participation in applied research activities helped them to gain new knowledge and experience in their work. Also, they found it useful in teaching and presentations. They stated that they had the opportunity to deal with policy-makers to identify their needs and for providing them with the required information or data. Moreover, some interviewed researchers stated that cooperation in applied research

helped them to identify priority problems and determine how they will be addressed and solved.

Research Utilization:

- 1- "Researchers and policy-makers are detached from each other; there is no common language" (Assistant Professor of General Surgery, Faculty of Medicine, Cairo University).
- 2- Others believed that policy-makers do not need their studies and will not be interested in them. "Policy-makers are not interested" (Assistant Professor of Pediatrics, National Research Center).
- 3- Another point raised by responders regarding the organizational structure pertained directly to the background of those in policy-making positions. Responders felt that appreciation of research and the utilization of results were likely to increase if the policy maker has an academic background.
- 4- During the interviews, we asked researchers about the possible factors that hinder utilization of their research results in policy-making. The majority of interviewed researchers agreed that lack of communication channels between researchers and policy makers together with financial obstacles to apply research findings represent main inhibitors to utilization of research results. A Public health Assistant Professor stated that lack of appreciation of the importance of research on the part of policy-makers is another hindering factor.
- 5- Moreover, a General Surgery Professor stated that frequent shifting of senior officials before completion of research and putting findings into utilization has a negative impact on the utilization of research findings.
- 6- In addition, another participant stated that political directions might hinder research utilization; either the policy maker does not want to agree, or s/he believes the study contradicts the results of another one.
- 7- Participants considered a range of different external circumstances that affects the link between research and policy and augmented the need for new researches for policy making. The majority of Public health researchers laid emphasis on situations where policy makers made use of new information at time of need such as during avian flu outbreaks.
- 8- Some views suggested ways to fill the institutional gap between research and policy. A professor of public health pointed out that an organizational innovation is needed to fill the gap between research and policy.

4. Discussion:

In this study, we interviewed researchers who conducted an average of 44.3 researches, of which

34.5 were published. Within the context of research type, health systems research constituted 66% of the total researches conducted. The availability of funds to support the implementation of the findings ranked as the most important factor affecting the policy-making process. A significant association between informing policy-makers about research results and research utilization in health policy-making was found. The majority of interviewed researchers believed that knowledge sharing and strengthening the collaboration between researchers and policy makers through innovative methods are the most important factors that could facilitate research utilization into evidence-based policy. Many of the interviewed researchers believed that knowledge conveying is one of the best ways of informing policy-makers about availability of evidence. However, some believed that researchers themselves should communicate research results to policy makers, mainly through personal communication and dissemination seminars. Responders felt that appreciation of research and the utilization of results were likely to increase if the policy maker has an academic background.

In the current study, although the research conducted by responders favors communicable diseases, health systems research and biomedical research; the amount of health systems research is given steady concern for future research. The same results were found in a similar national study that was conducted to assess health research for development in Egypt (WHO-EMRO, 2004).

In addition, there was a significant association between informing policy-makers about research results (through dissemination activities performed by interviewed researchers) and research utilization in health policy-making. Forty-eight interviewed researchers out of 75 reported that policy-makers have utilized their research. Out of those, 91.7% have informed policy-makers about their research results. These findings coincide with the recommendations stated by Hennink and Stephenson, 2004 in their study that aimed to explore barriers and strategies to using research in informing health policy in developing countries. They recommended that researchers need to be proactive to include a dissemination phase in research proposals, which include a dissemination plan, target audiences, dissemination activities, research "products", the range of communication media to be used and a budget.

As for the priority/importance of research in policy-making process, researchers mentioned factors that could affect the policy-making process that included in descending order; the availability of funds (90.7%); political interests (81.3%); personal

preference of policy-makers (53.3%); cultural factors (46.7%) and media interest (45.3%). Other factors that are considered important and that should guide policy preference such as cost-benefit of the intervention, public preference and target beneficiaries to reach the needy were perceived by 40%, 22.7% and 20.0% of interviewed researchers as important influencing factors on the health policy-making process.

Similar findings were concluded by a study conducted in Mali by Albert *et al.*, 2007 aiming at studying the factors influencing the utilization of health research findings by policy-makers. Policy-makers stated that while research is important, other information sources often take precedence. Research evidence is only one of many sources of policy influence, and may be used or discounted for how it matches with, or contradicts interests, experience and common sense (Court & Young, 2003; Bowen Zwi 2005; Uneke *et al.*, 2009).

In the present study, many interviewed researchers believed that continuous dialogue and communication between researchers and policy-makers in the early phases of the research process is very important (qualitative data analysis): "It is important to plan for research utilization in the early phases. The topics should be really vital and the agency that has commissioned the study should plan to make use of it, so when you finish it and hand it in, you are sure that it will be applied" (Public Health researcher). In accordance with the present results, a study conducted by Nawar *et al.*, 2005 concluded that decision makers have to be involved from the early phases of the research process. Moreover, planning for research utilization has to be concomitant with the beginning of research conduction.

However, a considerable number of interviewed researchers in the current study, perceived that policy-makers prefer to be informed about research results in a brief and concise way because they usually do not have the time. Even if research is considered important, it still requires a significant amount of time to search, locate, access, and review the relevant literature (qualitative analysis of data). Similar findings were concluded by Nawar *et al.* (2005), in which all officials asserted the need to keep findings and recommendations to a minimum; sufficient to be clear and convincing, with easy access/use for the officials. They also asserted the need to have concrete, well-delineated recommendations that are applicable and not too general. Bennett *et al.* (2010), stated that health Systems Research (HSR) which is relevant to the needs of policy-makers, managers and health workers, timely and delivered in an accessible

fashion, helps to stimulate the demand for more of such research.

Lack of communication between researchers and policy-makers was stated by 90.7% of the interviewed researchers as one of the most important factors that hinders using research results in the policy-making process. They mentioned facing problems in identifying policy-makers to whom research outputs should be disseminated. This was followed by political and/or financial reasons, which were stated by 60% of interviewed researchers. Those findings coincide with a study conducted in Nigeria, where policy-makers and other stakeholders in that study identified capacity constraints at the individual and organizational levels, communication gaps and poor networking between policy-makers and researchers as the major challenges for health research utilization in policy-making process (Uneke. et al, 2010). Similar findings were recognized by Walt (1994) who stated that political environments are not always conducive to the incorporation of research into policy formation. Lack of financial resources was considered an important factor that hinders research utilization, in the study conducted by Nawar *et al.* (2005).

As for strategies for promoting the use of health research results in policy-making; the majority of interviewed researchers (80%) stated that knowledge sharing between researchers and policy-makers is one of the most important facilitating factors for research utilization. They felt that a communication forum (such as research fora) would enable effective dialogue between researchers and policy-makers. Similar findings were identified in a study conducted by Hennink and Stephenson (2004) in 4 developing countries: Pakistan, Tanzania, Malawi and India. In that study, both researchers and policy-makers identified the strengthening of formal communication channels between researchers and policy makers as a promoter to effective dissemination and uptake of research results. However, in another study conducted with health care providers, they mentioned that the availability of higher quality and more locally applicable research were important issues that would help to improve their work (Cameron *et al.*, 2010).

In the current study, allocation of funds for the research process including translation of knowledge into action was stated by 60% of interviewed researchers as a facilitating factor for research utilization. The Commission on Health Research for Development COHRED (1990) recommended that countries should allocate at least 2% of national health expenditures and at least 5% of health project and program aid for health research and research capacity building. However, the Egyptian government till now does not consider investment in research to

be an investment that brings revenues (Nawar *et al.*, 2005).

Loewensen (2010), highlighted the need for a range of 'push' activities that disseminate research evidence to policy or programme personnel, 'pull' activities that strengthen capacities to steer, demand and use research and also exchange activities that make connections across the knowledge, policy and institutional streams. Regarding the best ways of informing policy-makers about research results and recommendations; half of the interviewed researchers (50.7%) believed that "knowledge conveners" is one of the best ways for the push and pull activities. Those perspectives were supported by similar ones stated by Lavis (2003) who mentioned "knowledge brokers" to promote the main findings of research to a wide audience in an attempt to promote the policy relevance of the research and focus stakeholders' attention towards specific areas of need.

Askew *et al.* (2002) argued that the increasing importance of mediators in the dissemination process has evolved both from researcher's lack of understanding of the policy process and policy-makers' difficulties in understanding research outputs.

Forty-four percent of interviewed researchers in this study believed that mass media is an effective way for communicating research results. They attributed this to the possible effects that mass media could lead to; by influencing the behavior of policy-makers, health service providers and the general public. Similarly, Grilli *et al.* (2004) mentioned that social marketing and direct-to-consumer advertising through mass media were widely used to inform policy-makers and the public and to influence their opinion on matters related to health interventions.

Findings of the current study are based on the interviewed researchers' perspectives and therefore cannot be seen as representative of all researchers' views in Egypt. However, the similarity between its findings and those concluded by other studies conducted elsewhere suggests the need for further research to test the effectiveness of strategies to improve utilization of research findings in the policy-making process.

5. Conclusion:

This study has highlighted some barriers to effective dissemination and uptake of research results by policy makers as perceived by the interviewed researchers. Feedback solicited from 75 participants enabled the identification of a number of important proposals, which can support increased uptake of research results in evidence-based policy-making. Among these proposals, standardized knowledge and understanding of research priorities and adequate dissemination skills should be maintained among research communities. Also, sustained

communication channels are partially missing between researchers and policy-makers. Strengthening the collaboration between these parties is one of the key strategies towards promoting the uptake of research into policy and program development. Lastly, financial obstacles represent one of the most important impeding factors for utilization of research results.

Corresponding author

Alaa Abou-Zeid
Department of Public Health, Faculty of Medicine,
Cairo University

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