Health Policy 90 (2009) 58–65

Contents lists available at ScienceDirect

Health Policy

journal homepage: www.elsevier.com/locate/healthpol

Engaging policy makers in road safety research in Malaysia: A theoretical and contextual analysis

Nhan T. Tran[a,*], Adnan A. Hyder[b], Subramaniam Kulanthayan[c], Suret Singh[d], R.S. Radin Umar[e]

[a] Department of International Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, USA
[b] Department of International Health & Center for Injury Research and Policy, Johns Hopkins University Bloomberg School of Public Health, 615 North Wolfe Street, Suite E-8132, Baltimore, MD 21205, USA
[c] Universiti Putra Malaysia, Faculty of Medicine and Road Safety Research Center, Malaysia
[d] Department of Road Safety, Malaysian Ministry of Transport, Malaysia
[e] Malaysian Institute for Road Safety Research, Malaysia

ARTICLE INFO

Keywords:
Evidenced-based decision-making
Policy engagement
Collective research
Knowledge translation
Knowledge brokering
Malaysia
Road safety
Policy framework
Engaging policy makers in road safety

ABSTRACT

Road traffic injuries (RTIs) are a growing public health problem that must be addressed through evidence-based interventions including policy-level changes such as the enactment of legislation to mandate specific behaviors and practices. Policy makers need to be engaged in road safety research to ensure that road safety policies are grounded in scientific evidence. This paper examines the strategies used to engage policy makers and other stakeholder groups and discusses the challenges that result from a multi-disciplinary, inter-sectoral collaboration. A framework for engaging policy makers in research was developed and applied to describe an example of collective road safety research in Malaysia. Key components of this framework include *readiness*, *assessment*, *planning*, *implementation/evaluation*, and *policy development/sustainability*. The case study of a collaborative intervention trial for the prevention of motorcycle crashes and deaths in Malaysia serves as a model for policy engagement by road safety and injury researchers. The analytic description of this research process in Malaysia demonstrates that the framework, through its five stages, can be used as a tool to guide the integration of needed research evidence into policy for road safety and injury prevention.

1. Introduction

Road traffic injuries (RTIs) have a tremendous impact on the public health of a population, and many of the most effective interventions to prevent these injuries require support at the policy level [1–3]. Road traffic injury prevention specialists, like their colleagues in other public health fields, rely on laws and regulations by government agencies as powerful tools in prevention, as they have a much broader reach than individual level program activities [1]. Road Safety policies generally function by establishing personal, vehicle, and environmental standards, and by creating statutory controls on risks related to roads [1]. Tried and tested interventions such as minimum age requirements for licensure, the use of safety helmets, enforcement of speed limits, and designation of separate motorcycle lanes are some of the many examples of public health interventions for the prevention of RTI that necessitate the involvement of the policy sector [3–9].

This paper is aimed at strengthening the research–policy interaction in road safety by providing an operational framework to guide this complex process. The first part of this paper focuses on the current challenges faced by researchers and decision makers in developing evidence-

* Corresponding author. Tel.: +1 410 955 3928; fax: +1 410 614 1419.
E-mail address: nhtran@jhsph.edu (N.T. Tran).

0168-8510/$ – see front matter © 2008 Elsevier Ireland Ltd. All rights reserved.
doi:10.1016/j.healthpol.2008.08.009

based policies; it examines current strategies used to facilitate this process including knowledge transfer, knowledge brokering, and collective research practice. Next, a framework for collective research and practice is proposed and used to describe an example of a successful collaboration between researchers and policy makers in Malaysia. One of the outcomes of this collaboration is the establishment of a field trial to test a visibility enhancement material (VEM)-based intervention which will inform the development of national policies on motorcycle safety. Through this process, this paper will provide a model for the effective engagement of research and policy interface in road safety, especially in developing country settings.

2. The research–policy interaction

Despite the obvious link between knowledge and action, the interaction between those who generate information and those who are expected to use and apply that information is uncommon, especially in low- and middle-income countries [10,11]. A common critique of policy practices by researchers is the failure to integrate scientific evidence into the decision-making process, while policy makers often call into question the usefulness of research findings and policy recommendations that are put forth by researchers [12,13]. At the same time, it has been observed that research findings are not generally targeted to policy makers; the questions that researchers seek to answer are often quite different than those facing policy makers, even though they may address the same subject matter [14]. Researchers are generally focused on narrowly defined topics, while policy makers examine problems from a macro-perspective as the decisions they make impact a wide range of services and stakeholder groups [11,14].

The standard in research is to disseminate results within the scientific community by publishing findings in peer review journals whose readership seldom comprises policy makers [11,15]. The scientific tradition of having peer reviews of one's work does not provide any incentives for researchers to target their research findings to policy makers, thereby perpetuating the separation of the two groups. On the other hand, policy makers' preferred sources of information were cited to be personal contacts, journals, events (seminars, speeches, and conferences), the Internet, and books [16]. A study in the United States found that policy makers had three main information sources: commissions, experts, and think-tanks [17]. These references suggest that while research evidence, whether it is published in scientific journals or solicited from researchers themselves, is included among the sources of evidence used by policy makers, it is one of many sources. As such, there is a need for researchers to pro-actively market their research findings to policy makers by establishing direct relationships with policy makers or through partnerships with advocates [12].

An example of challenges in the research to policy interaction is the law governing motorcycle helmets in the United States. While the use of motorcycle helmets has been shown conclusively in research to be effective in preventing motorcyclist deaths and head injury, only half of the states in the United States have implemented mandatory helmet laws [3,5,6,18]. From a research perspective, helmets can reduce the cost born to society by motorcyclist deaths and injuries and therefore should be a requirement for all motorcycle riders. Policy makers however factor in the attitudes of the population regarding helmet usage, and as shown by the many states in the U.S. without mandatory helmet legislation, the views of constituent groups who oppose mandatory helmet laws have a big impact on policy making [18].

3. Strategies for evidenced based policy making

The numerous approaches to increase evidenced based policy making developed in the last several decades can be summarized in three categories: *knowledge translation* (*KT*), *knowledge brokering*, and *collective research and practice* [10,19,20]. KT is the process by which research evidence is synthesized and summarized for non-scientists [21]. Tools such as systematic reviews are designed to assist in the translation of knowledge; and there are increasing numbers of institutions such as the Cochrane Collaboration which focus on such activities [10]. Systematic reviews can be an efficient means of KT because they synthesize findings from numerous studies to produce one set of findings, and result in recommendations that are less prone to error because of the greater sample size [22]. However, while KT functions to clarify existing research evidence, it is not a tool for policy analysis and does not address the other factors that influence decision-making [23].

Knowledge brokering can be broadly defined as the process of bringing together researchers, policy makers and other stakeholders in order to facilitate the exchange of information between these different groups [17,24]. Knowledge brokering most often involves a third party that acts as a mediator between researchers and policy makers [17,24]. The "broker" is someone or a group of people who have a strong understanding of scientific methodology but who are also familiar with the policy process and are able to assist with the translation of knowledge. This is different than KT because the aim of brokering is to bring about interaction between the groups, and not merely the translation of scientific evidence [25]. It has been described as a three-part process [25]. In the first stage, a synthesis of available research is conducted and reviewed by the broker(s). Then, once the evidence has been synthesized, the broker(s) conducts a policy analysis involving the various stakeholders after which range of policy options are developed. The final step is to convene a forum in which policy makers and researchers discuss the range of options in order to reach an agreement on a policy recommendation [25].

Collective research and practice is where true integration takes place; in this model, researchers and policy makers are engaged collaboratively in the identification of research questions as well as the development of evidenced based decisions [19]. Unlike knowledge brokering, it requires interaction and collaboration at all stages of the policy development process: identification of an issue to be researched, analysis of research findings, policy analysis, and development of policy options [26]. The active involvement of both researchers and policy makers at all stages ensures that policy makers have a strong understanding of