CHAPTER SEVEN

Translation of Evidence for Health Policy

Kathleen M. White

> In order to advocate effectively for lifesaving legislation, advocates must have clear and compelling scientific evidence to provide a basis for policy change.
>
> —Millie Webb, Mothers Against Drunk Driving

Understanding the Policy Process Is Critical to the incorporation of newly generated research evidence into health care practice and policy. However, there is a large gap between the research and policy worlds. Lavis and colleagues (2002) paraphrased the title of a journal article to describe the gap between research and policy as "the paradox of health services research: if it is not used, why do we produce so much of it?" Why do we not see consistent translation of new scientific evidence into public policy? How might the interactions between researchers and policy makers become more relevant to real-world problems? What strategies will improve knowledge translation into health care policy? Brownson, Royer, Ewing, and McBride (2006) suggested that researchers and policy makers are "travelers in parallel universes"; yet, linking scientific advances to public policy has tremendous promise to advance the health and well-being of the population (Brownson et al., 2006). Brownson, Chriqui, and Stamatakis (2009) discussed the importance of implementing evidence-based policy, citing that the 10 great public health achievements of the 20th century, such as seat belt laws, tobacco control, and injury prevention, were model achievements because of a policy change. However, they found that only 6.5% of the sponsors of these achievements provided details that showed that the policies or laws were based on scientific information. There are two ways that research findings are communicated: first, by establishing relevance to current issues and, second, by using a local example to frame the effects of a policy impact, which are critical to knowing when and how quickly the research will be considered for use (Armstrong et al., 2013). Effective methods of dissemination and implementation are needed to put evidence into real-world settings, including the policy environment (Brownson & Jones, 2009). Lewis (2011), describing the relationship between research and policy making as "still hazy after all these years," suggests that continued efforts are needed to understand the decision-making processes and enhance the role of research-based evidence in policy.

Because of the difficulty in achieving evidence-based policy, the use of terminology that refers to "evidence-informed" policy is gaining recognition that allows for evidence to consider political realities, change management practices, and influence provider behaviors and local preferences (Lavis, Oxman, Lewin, & Fretheim, 2009; Kelley & Papa, 2012). The World Health Organization (WHO) has created an Evidence-Informed Policy Network, referred to as EVIPNet, to promote the use of evidence to improve health care practices and policies globally (http://www.who.int/evidence/en). This chapter discusses evidence and the policy-making process and offers strategies and examples of evidence translated into policy at various public and private levels of policy making.

■ POLICY AND THE POLICY PROCESS

Policy is defined as the choices a society, an organization, or a group makes regarding its goals and priorities and how it will allocate its resources to those priorities. The design of policy involves specifying ends or goals to be pursued and the means for achieving those goals, and reflects the values, beliefs, and attitudes of those designing the policy (Mason, Chaffee, & Leavitt, 2011).

Public policy is defined as any action by local, state, or national government that is in response to demands of the society to achieve desired goals, values, and practices. Public policy includes laws, regulations, organization/agency guidelines, private sector initiatives, and national or international specialty initiatives.

Health policy specifically addresses how and by whom health care is delivered and financed and the environmental influences on health, and it has direct and indirect impact on people's health. The WHO defines health policy as an agreement or consensus on the health issues, goals, and objectives to be addressed, the priorities among those objectives, and the main directions for achieving them.

Policy making is a complex, dynamic, and constantly evolving process. Ideally, the policy process, whether for a public policy or a heath care policy in particular, follows five steps: (a) getting on the public agenda, (b) policy formulation, (c) policy adoption, (d) policy implementation, and (e) policy evaluation (Anderson, 2011). However, the five steps are rarely linear or cyclical. The introduction of research evidence has the ability to influence the policy-making process at any of the steps.

There are several approaches to policy making and the decision making that ensues as policies are developed. The first is the *rational approach* to policy decision making. Derived from classic economic theory, this approach is considered to be rational, not only because it has a logical and linear sequence, but also because it assumes full information comparing all possible alternatives to solve the problem. The limitations to this approach are evident, primarily because an exhaustive analysis of benefits and costs to every possible alternative for dealing with a problem is not practical; it is time-consuming and expensive. The *incremental approach*, also referred to as "incrementalism," involves small steps to policy change. Many who are involved in the policy process argue against making radical changes and are reluctant to change things too quickly; consequently, policies get tweaked over time rather than dramatically changed all at once. Using this more practical approach, only a few of the many possible alternatives are considered and tend to be the ones that involve only small changes in existing policy rather than radical innovations.

Changes are made only "at the margin." Another approach to the policy decision making is known as the *garbage can approach*. This approach considers that, at any particular time, there is a mix of problems and possible solutions and that this mix of problems and solutions determines the policy outcome.

Kingdon's *multiple streams approach* (2003) to policy decision making explains three streams (problem, policy, and politics) to implement evidence-based policy and to communicate and package the policy. This approach attempts to explain why some problems and alternatives are recognized and considered for the policy agenda, whereas others are not. The first stream is the *problem*. It is in this stream that problems come to the attention of policy makers, and the decision is made that something must be done about it or it goes away. Problems come to attention through triggering events, feedback, or new knowledge. The *policy* stream is when alternatives or solutions are generated by the policy community. During this time in the policy process, new knowledge or ideas must be considered feasible and practical to implement to reach the policy agenda. The *politics* stream includes the current context within which the problem and policy streams are operating, including national mood, organized interests, and current events. When these three streams converge at a given point in time, a problem is recognized, a viable solution is identified, and a change occurs in the political stream. Kingdon (2003) says that a "window of opportunity" opens and a policy change can be enacted.

■ WHY IS TRANSLATION OF RESEARCH TO POLICY DIFFICULT?

An often cited and important systematic review of evidence from 24 interview studies on facilitators and barriers to the use of research evidence by policy makers yielded weak results (Innvaer, Vist, Trommald, & Oxman, 2002). The use of the evidence was largely descriptive and qualitative and provided limited support for commonly held beliefs. They found that the degree to which evidence is used directly or selectively varies in relation to different types of decision makers and different types of policy questions. In the review of 24 articles, common barriers (and their frequency in parentheses) to the use of research evidence in policy making were identified:

- Absence of personal contact between researchers and policy makers (11/24)
- Lack of timeliness or relevance of research (9/24)
- Mutual mistrust, including perceived political naivety of scientists and scientific naivety of policy makers (8/24)
- Power and budget struggles (7/24)
- Poor quality of research (6/24)
- Political instability or high turnover of policy-making staff (5/24)

They also identified the most common facilitators (and their frequency) of the use of research in policy making from the review:

- Personal contact between researchers and policy makers (13/24)
- Timeliness and relevance of the research (13/24)
- Research that included a summary with clear recommendations (11/24)
- Good-quality research (6/24)

- Research that confirms current policy or endorsed self-interest (6/24)
- Community pressure or client's demand for research (4/24)
- Research that included effectiveness data (3/24)

Finally, the review also identified five strategies to increase policy makers' use of research for policy making, focusing on what the researcher should do. The researcher should (a) have a personal and close two-way communication with the policy maker; (b) ensure that research is perceived as timely, relevant, and of high quality; (c) include effectiveness data; (d) argue that research is relevant to the demands of policy makers and the community; and (e) provide policy recommendation reports, along with the technical research reports.

Lavis, Lomas, Hamid, and Sewankambo (2006) identified four challenges to translating new research evidence to practice and policy: (a) Research evidence competes with other ideas in the decision-making process, (b) decision makers may not value research evidence, (c) the new research evidence may not be relevant, and (d) research evidence is often not easy to use or understand.

Brownson et al. (2006) identified eight major challenges to the translation of research to policy. Their research found that the most important challenge is the clash of cultures between the researcher and the policy maker, citing that, even with sound scientific data, some policies do not get implemented because of lack of public support or competing policy issues. This clash of cultures or "two-communities" view is discussed later in the chapter. The second challenge is poor timing. The generation of new knowledge is not predictable and does not coincide with issues that are on the public agenda. Third, ambiguous findings, is the frustration that policy makers have with research results. Brownson et al. (2006) suggest that policy makers want precise estimates, and researchers often provide confidence intervals that are difficult to sell or project. Fourth, balancing objectivity and advocacy is a debate in the research community and is another challenge to the translation of research to policy. The debate questions whether scientists might lose research objectivity if they take an active role in the policy process versus their obligation to report research findings in a timely and understandable manner and advocate for those results to become policy. Another challenge identified in this research is that of personal demands and the scientist's lack of time to be involved in advocacy and policy making. Information overload and, conversely, the lack of relevant data are both challenges to translating research to policy. Policy makers are limited by the amount of information they can process. The effective communication of research findings in a relevant, timely, and compelling manner is necessary to inform the process. Finally, the mismatch of randomized thinking with nonrandom problems has always plagued the use of research data for policy making. Brownson et al. (2006) suggest that the use of case studies or anecdotes to increase relevance and to understand the value is an important consideration for researchers.

Later, Brownson et al. (2009) identified eight specific barriers to implementing effective evidence-based health policy: (a) a lack of value placed on prevention, (b) an insufficient evidence base, (c) mismatched time horizons, (d) the power of vested interests, (e) researchers isolated from the policy process, (f) complex and messy policy-making process, (g) some individuals on the team not understanding the policy-making process, and, finally, (h) practitioners lacking the skills to influence evidence-based policy.

THEORY AND ORGANIZING FRAMEWORKS FOR TRANSLATION OF EVIDENCE TO POLICY

Research processes include a question, specifically designed methods to answer the question, data collection, analysis, and interpretation (Lavis, 2006). The public policy-making process is less linear, more unpredictable, and the vicissitudes of debate and politics can cause the issue to languish with uncertain outcome.

The classic literature on technology transfer raised the question about who is responsible for ensuring the application of new technology (Kamien & Schwartz, 1975; Lynch & Gregor, 2003). This responsibility debate, referred to as the "technology push" or the "need or demand pull," refers to the source and motivation for the innovation. The source is either the scientist who develops the innovation (technology push) or the demand for the innovation based on perceived need (demand pull). According to this *push–pull* theory, an innovation is likely to occur and be applied when a means to develop the innovation and the need for it are simultaneously recognized. This debate has been applied to other disciplines, and more recent discussions in the translation literature have focused on a science-push versus a user-pull debate. The science push is the development of new knowledge driven by science. The user pull is making evidence available when there is demand from policy makers for evidence to drive policy.

Nathan Caplan's two-communities theory (1979) attempted to explain the use or nonuse of research for policy making as a symptom of the cultural or behavioral gap between researchers and policy makers. The theory posits that there are cultural differences between the research and policy-making communities, that they have different views of the world explained as a gap in values, language, reward systems, and professional affiliations. For example, the researcher is concerned mainly with pure science and esoteric issues, whereas the policy maker is more interested in immediate relevance and has an action orientation. This simple dichotomy of use versus nonuse between the two communities must be acknowledged and understood, but researchers and policy makers cannot be complacent or assume that this is the way it has to be. Caplan, Morrison, and Stambaugh (1975) also found that these two groups—the researchers and the policy makers—see themselves and each other differently. The social scientists in the research saw themselves as rational, objective, and open to new ideas, and they saw the policy makers as action and interest oriented and indifferent to evidence and new ideas. The policy makers saw themselves as responsive, action oriented, and pragmatic, and saw the scientists as naïve, jargon ridden, and lacking in practicality. To have an impact on developing and implementing evidence-based policy, the two groups must develop a mutual understanding of the important policy questions and the evidence that is needed to answer them.

Carol Weiss (1979) discusses the three meanings of research as (a) data, (b) ideas, and (c) argumentation, and research is only one of many sources of information used by policy makers. She views that the goal of research is to clarify and accelerate opinion to contribute to the policy process. Her work adds another dimension to the use–nonuse discussion and suggests that it is not a simple dichotomy of use and nonuse, but that translation of new knowledge is built on a gradual shift in conceptual thinking over time. She posits that the real decision making is "consideration for use," and she argues

that there is an "enlightenment function" of research. She identifies seven models or meanings of research use:

1. Knowledge driven—application of basic research
2. Problem solving—communication of research on agreed-upon problem to the policy maker
3. Enlightenment—education of the policy maker
4. Political—rationalization for previously agreed-upon decision
5. Tactical—requesting additional information to delay action
6. Interactive—competing information sources that implies a search for policy-relevant information
7. Intellectual enterprise—policy research as one of many intellectual pursuits

The challenge for the research community is to improve the use of research findings in policy making. There are numerous frameworks found in the literature that attempt to explain decision making (or lack of decision making) and translation (or lack of translation) of new knowledge into the policy process.

Lavis, Robertson, Woodside, McLeod, and Abelson (2003) developed an organizing framework for knowledge transfer into policy and posit that the push–pull tug of knowledge transfer can be loosened by attention to the message and the target audience. The framework has five key elements: (a) the *message* or how an actionable message should be developed and transferred to decision makers, (b) the *target audience* or to whom the research knowledge should be transferred, (c) the *messenger* or by whom the research knowledge should be transferred, (d) the *knowledge transfer process* or how the research knowledge should be transferred, and (e) the *evaluation* or use of objective performance measures to evaluate the effect of the transfer of the research knowledge. Lavis et al. (2003) suggest that there are four key target audiences to consider: general public, service providers, managerial decision makers, and policy decision makers, and that the message should be crafted individually to each target audience. They also stress the importance of stakeholder involvement in the development of health care policy.

There are other models or frameworks for translation of research into policy making worth mentioning. Dobbins, Ciliska, Cockerill, Barnsley, and DiCenso's (2002) *framework for dissemination and utilization of research for health care policy and practice* describes a process for the adoption of research evidence into health care decision making. The framework includes the complex interrelationships between the individual, the organization, the environment, and the innovation. This framework uses Everett Rogers's five stages for the diffusion of innovation to describe the journey of the innovation into practice policy: knowledge, persuasion, decision, implementation, and confirmation. Schmid, Pratt, and Witmer (2006) developed a framework for public policy relevant to physical activity, and Rütten et al. (2003) applied the concept of *logic of events* in a model that is determined by wants, abilities, duties, and opportunities to develop and carry out health policy and evaluate impact.

Gold (2009) developed a framework from the literature, showing 10 pathways through which research may be used in policy making and the factors that mediate the translation of research into messages that are communicated to and used by policy makers. The 10 pathways are divided into:

1. Traditional pathways where meritorious findings drive use (big bang, gradual accumulation and diffusion, and formal synthesis)

2. Intermediaries that help to communicate the research messages (researchers as communicators and experts, formal intermediary-brokered translation, and the mass media)
3. Users that seek to enhance the value of research (commissioned synthesis around policy problems, user-commissioned studies, users that provide input into new research, and researchers as users)

Of course, a single pathway is rarely seen, and a composite of these pathways is more realistic and should be the focus of translation efforts to incorporate new knowledge into policy. The value that this analysis adds is the emphasis on the linkages of the pathways and building bridges between the research and user communities. Gold (2009) emphasizes the importance of a publicly available repository of research findings and synthesis of those findings, not only around important public policy agenda issues, but also in emerging health care problems and issues, to raise awareness and to stimulate further research on important topics.

Weinick and Shin (2003), as part of work for the Agency for Healthcare Research and Quality, developed a framework for developing data-driven capabilities to support policy decision making. The framework has four stages and focuses on the importance of stakeholders in making policy decisions. The first stage is *definition and priorities*, which includes articulating a common definition of the policy problem among the stakeholders, clarifying stakeholder concerns and priorities, and understanding what questions need to be answered with evidence. The second stage is *generating data* or determining what data are available to support a policy decision. This stage involves assembling a matrix of all available data sources, including an evaluation of what the data represent and confidence in the data, determining the available measures, identifying the need for new or additional data, and developing an inventory of current and past initiatives. The third stage is *assessment* or explaining what the data say about the current state of the problem, undertaking activities that include analyzing data, clarifying the limitations of current knowledge, and disseminating the findings. The fourth and final stage is *action*. The main activity of the action stage is selecting a policy option that is supported by the data. This includes evaluating the impact of past and current initiatives and any unintended consequences, estimating the short- and long-term effects of the options, and making the policy recommendation. This stage should also include an evaluation of values at issue, anticipation of the outcomes of policy options, and development of a plan for communication of the policy choice.

In 2007, the WHO did a review of the capacity issues underlying different aspects of the relationship between researchers and policy makers (Green & Bennett, 2007). Green and Bennett (2007) used a framework to guide the process, to show that there is not a linear relationship between the generation of evidence and policy making, and that there are many factors involved in how new knowledge gets translated into policy. The framework first describes four functional processes: (a) priority setting for research, (b) knowledge generation and dissemination, (c) evidence filtering and amplification, and (d) the policy process. As evidence-informed (this framework does not use evidence-based policy) policy making occurs, it is recognized that there are many direct and indirect influences on the policy making, including ideology and values, ability to use the evidence, personal experience and intuition, special interests, and external influences. There are many

examples of this filtering and amplification of evidence in the policy arena. Special interests often use this as a way to pick out or *filter* their particular research outputs, translate them into policy messages, and attempt to influence policy makers. The next level of concern for the framework is the various organizations that are carrying out the functions described previously and their interrelationships. They identified these organizations as funding bodies, research institutions, advocacy organizations, the media, think tanks, and government bodies. Finally, the framework includes certain organizational capacities that the organizations must have to carry out the functions, such as leadership and governance, adequate and sustainable resources, and communication and networks. These all operate within a broader national context and wider environment that includes external funders, external research organizations, and external advocacy groups. The added value of this framework to the discussion of translation of research to policy making is the previously recognized important role of the organization in the policy-making process and the help given to researchers and policy makers to understand what works for whom and in what circumstances.

■ STAKEHOLDERS OR THE RESEARCH USER GROUP

Knowledge translation for evidence-based policy has been described as a unidirectional flow of information that resulted in a specific policy. If the flow of information was from the researcher to the policy maker, it was called the "science-push" or "knowledge-driven" model (Jacobson, Butterill, & Goering, 2003). Conversely, if the policy maker commissioned the information to address a policy problem, it was referred to as a "demand-pull" or "problem-solving" model.

Jacobson et al. (2003) developed a framework for knowledge translation: understanding user context from a review of literature and their own experience. The framework contains five domains: (a) the user group, (b) the issue, (c) the research, (d) the researcher–user relationship, and (e) the dissemination strategies. Within each domain, the authors pose questions to the researcher that can serve as a way of organizing the translation to the user group.

The first domain is the *user group*. There are many questions posed under this domain, and they focus on: the context in which the user group operates; the morphology, politics, and decision-making practices of the user group; how the user group uses information; and the experience with translation.

The second domain is the *issue* and includes questions about: the effect of the issue on the user group; how the user group currently deals with the issue and whether this is changing or not; whether there is uncertainty or conflict surrounding the issue; and what the risks associated with the issue are (Jacobson et al., 2003).

The *research* itself is the third domain and encourages the researcher to think about: the source, focus, and methodology of the research; the quality, consistency, and ambiguity of the research; the relevance of the research to the user group, such as whether the research has an immediate application, whether it is action oriented, and whether it is compatible with the user group's expectations or priorities; and, finally, what the implications of the research are for the user group and how politically charged they are (Jacobson et al., 2003).

User Group Questions

In what formal or informal structures is the user group embedded?

What is the political climate surrounding the user group?

To whom is the user group accountable?

Are changes expected in any of these?

How big is the user group?

How centralized is the user group?

How institutionalized is the user group?

What are the politics within the user group?

What kinds of decisions does the user group make?

What is the user group's attitude toward decision making?

What criteria does the user group use to make decisions?

What actions are available to the user group?

What are the stages or phases of the user group's decision-making work?

What is the user group's pace of work?

What sources of information does the user group access and use?

How does the user group process information (i.e., how does it access, disseminate, and apply information internally)?

For what purposes does the user group use information?

Has the user group demonstrated an ability to learn?

What incentives exist for the user group to use research? Is the user group cynical about research and researchers?

How sophisticated is the user group's knowledge of research methods and terminology?

Does the user group have a history of being involved in knowledge translation?

What knowledge translation structures and processes already exist?

What resources does the user group devote to knowledge translation?

What are the user group's expectations of the researcher? Of the knowledge translation process?

How many user group members will be involved in the knowledge translation process? Who are they?

Source: Jacobson et al. (2003).

The fourth domain is the *researcher–user relationship* and focuses the researcher on the linkage between the researcher and the user group; how much trust and rapport exist; whether they have a history of working together; how frequently they have contact with one another; and whether the researcher and the user group have agreed on the outcomes of the translation and about the responsibilities and interactions each will have during knowledge translation (Jacobson et al., 2003).

The final domain deals with how the translation will be organized and the *dissemination strategies* that will be used during the translation, such as the manner of communication, format, the detail needed, use of feedback and reminders, and the extent and the ways in which the researcher should continue to be available to the user group after the conclusion of translating the knowledge (Jacobson et al., 2003).

Attention to these domains by the researcher will improve translation planning and implementation and raise awareness of the information needed by users, which can increase the uptake of the research results. The early involvement of multiple stakeholders with specific vested interests is more likely to develop consensus and yield a user-friendly policy that can be successfully implemented and sustained (Irvin et al., 2007; Nieva et al., 2005).

■ SELECTED TRANSLATION OF EVIDENCE TO POLICY

Sorian and Baugh recognized the importance of state participation in setting health policy based on evidence. They raised the following questions: (a) How useful is policy research in making policy decisions? (b) Is research information getting to policy makers in a timely and useful manner? (c) How can the needs of researchers and policy makers be better aligned? In an attempt to answer these questions, researchers from Georgetown University's Institute for Health Care Research and Policy and the T. Baugh and Company marketing firm conducted a telephone survey of state-based health policy makers. They interviewed 97 legislators, 97 legislative staff members, and 87 executive managers of health-related state agencies (Sorian & Baugh, 2002) to identify pathways and factors that could assist communicating health policy research findings to state policy makers. Results of the survey showed that 53% of the respondents only skim materials and that they never get to 35% of the material. They reported that 49% of the information they receive is not relevant, and when probed about what would make it relevant, 67% said they needed the information to be focused on current debate or 25% on real people. They also identified what made information least useful to them: 36% said when the information is not relevant or focused on real problems; 22% said when it is too long or dense; 20% reported information not to be relevant when it was too theoretical, technical, or used jargon; and 19% were concerned about bias.

Pollack, Samuels, Frattaroli, and Gielen (2010) discussed numerous examples of injury prevention measures that were proven effective, such as passenger-restraint devices, smoke alarms, residential sprinklers, and motorcycle and bicycle helmets. Their experience has shown that personal contact between researchers and policy makers and timely conveyance of easy-to-understand information that is relevant to the policy context facilitates the acceleration of translation of knowledge to action to prevent injury and protect the population. Additionally, information on the burden of the problem, costs associated

with action or inaction, and options for policy formulation are all important to include (Jilcott, Ammerman, Sommers, & Glasgow, 2007; Pollack et al., 2010).

Tomson et al. (2005) reported on the usefulness of research evidence in implementing a national drug policy in the Lao People's Democratic Republic. Their research concluded that a close interaction between the researchers and the policy makers and attention to broad dissemination of results are important for acceptance of new evidence for drug policies, but that more research is needed to understand the interaction necessary between researchers and decision makers.

In 2005, Congress passed legislation as part of the Deficit Reduction Act, which requires the secretary of the Department of Health and Human Services through the Centers for Medicare and Medicaid Services (CMS) to identify health care conditions among admitted patients to the hospital that (a) are high cost, high volume, or both; (b) result in the assignment of a case to a diagnosis-related group, which has a higher payment when present as a secondary diagnosis; and (c) could reasonably have been prevented through the application of evidence-based guidelines (Department of Health and Human Services, Centers for Medicare and Medicaid Services, 2011). The new law was applicable to 3,500 acute care hospitals reimbursed by Medicare. On July 31, 2008, CMS identified 10 categories of conditions that met the three criteria stated previously and were selected for this hospital-acquired condition (HAC) payment provision in the fiscal year 2009 final rule:

1. Foreign object retained after surgery
2. Air embolism
3. Blood incompatibility
4. Stage III and IV pressure ulcers
5. Falls and trauma, including fractures, dislocations, intracranial injuries, crushing injuries, burns, and electric shock
6. Manifestations of poor glycemic control, such as diabetic ketoacidosis, nonketotic hyperosmolar coma, hypoglycemic coma, secondary diabetes with ketoacidosis, and secondary diabetes with hyperosmolarity
7. Catheter-associated urinary tract infection (UTI)
8. Vascular catheter-associated infection
9. Surgical site infection following (a) coronary artery bypass graft (CABG); (b) bariatric surgeries such as laparoscopic gastric bypass, gastroenterostomy, and laparoscopic gastric restrictive surgery; and (c) orthopedic procedures of the spine, neck, shoulder, and elbow
10. Deep vein thrombosis (DVT)/pulmonary embolism (PE) following total knee or hip replacement

Medicare will no longer pay hospitals at higher rates for the increased costs of care if any of these 10 conditions that have been determined to be reasonably preventable by following generally accepted evidence-based practice guidelines are acquired during the hospitalization.

This policy, using evidence-based practice guidelines based on the translation of research to practice and now to policy, is important for standardizing and improving access to appropriate treatment for patients. The benefits should be significant to health care (White, 2008).

The transitional care model (TCM), developed by researchers at the University of Pennsylvania and funded by the National Institutes of Health, is another example of the translation of an evidence-based strategy into a practice delivery model. The model uses advanced practice registered nurses with specialized training to care for older adults with multiple chronic conditions and support their family caregivers (Naylor et al., 2004; Naylor et al., 2009). The TCM has had significant and sustained outcomes including avoiding hospital readmissions and emergency room visits for primary and coexisting conditions; improvements in health outcomes after discharge; enhancement in patient and family caregiver satisfaction; and reductions in total health care costs (Naylor & Sochalski, 2010). This success of the TCM has positioned it for translation into national health care policy. Aetna has adopted the TCM to achieve better outcomes for its older adult enrollees with multiple chronic problems. AARP has recommended expansion of the services of the TCM to its members. The National Quality Forum has endorsed the deployment of evidence-based transitional care, such as the TCM, as one of 25 national preferred practices for care coordination. Finally, the Patient Protection and Affordable Care Act of 2010, President Obama's health care reform legislation, includes support for design, measurement, and payment innovation around evidence-based transitional care.

A final and important clinical example of translation of evidence into policy is attempting to reduce early elective deliveries of newborns. Approximately 10% to 15% of all births in the United States are performed early without any medical reason for the early birth induction. These early births scheduled without a medical reason, also known as "early elective deliveries," occur between 37 and 39 weeks of pregnancy. Elective deliveries may occur by either induction or cesarean section (C-section) and are associated with an increased risk of maternal and neonatal morbidity and longer hospital stays for both mothers and newborns, as compared to deliveries occurring between 39 and 40 completed weeks gestation. These early births have increased the risk of maternal and infant complications. For more than 30 years, the American College of Obstetricians and Gynecologists (ACOG) has promoted a clinical guideline discouraging elective deliveries prior to 39 weeks gestation without medical or obstetrical need. Over the past several years, organizations such as the March of Dimes, Childbirth Connections, the LeapFrog Group, and the Association of Women's Health, Obstetric and Neonatal Nurses have raised concerns about babies being scheduled for birth too soon. In 2012, CMS and state Medicaid programs launched two evidence-based initiatives designed to improve maternal and infant health outcomes by reducing the number of early elective deliveries that lack a medical reason (American College of Obstetricians and Gynecologists, 2009). One initiative, Strong Start for Mothers and Newborns, led by the Centers for Medicare and Medicaid Innovation (CMMI) working in partnership with the Center for Medicaid and CHIP Services (CMCS), includes two primary strategies: (a) testing ways to encourage best practices for reducing the number of early elective deliveries that lack medical indication across all payer types; and (b) testing three models of enhanced prenatal care for reducing preterm births among women covered by Medicaid/CHIP. The other national initiative, CMS Expert Panel for Improving Maternal and Infant Health Outcomes is identifying specific opportunities and strategies to provide better care, while reducing the cost of care for mothers and infants covered by Medicaid/CHIP (http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/EED-Brief.pdf).

STRATEGIES TO INCREASE THE UPTAKE OF RESEARCH TO POLICY

The literature abounds with discussion of strategies to increase the uptake of evidence into policy or lessons learned from an attempt to translate research into policy. As has been said about moving evidence into practice, there is a similar need to move from knowing to doing (Nutley, Walter, & Davies, 2003). Lavis et al. (2002) conclude that careful attention must be paid to: where we look for research use; what we are looking for; the conditions under which the research is used and not used; and, most importantly, the way in which research is used as well as its use in the context of other competing influences in the policy-making process. Brownson et al. (2006) suggest several actions to bridge the research–policy chasm, but all are aimed at the researcher: Understand the complexity and drivers in decision making; find a way to understand and be involved in the policy process; communicate information more effectively; make better use of analytic tools; educate staffers on science; develop systems for policy surveillance; conduct policy research; improve training and educational programs for scientists; build appropriate, transdisciplinary teams; and cultivate political champions. Likewise, policy makers have a responsibility to bridge this chasm.

Mercer et al. (2010) wrote a case study examining the lessons learned from translating evidence on the effectiveness of laws to lower the legal blood alcohol limit for drivers. They reported that the successful translation of evidence into policy was related to the following: (a) salience of the health problem and policy intervention, in addition to the compelling relationships between the health problem, policy intervention, and health outcomes; (b) use of systematic review methods to synthesize the full body of evidence; (c) use of a recognized, credible, and impartial process for assessing the evidence; (d) development of evidence-based policy recommendations by an independent, impartial body; (e) ability to capitalize on readiness and teachable moments; (f) active participation of key partners and intended users throughout all stages of the process; (g) use of personalized channels, targeted formats, and compelling graphics to disseminate the evidence; (h) capacity to involve multiple stakeholders in encouraging uptake and adherence; and (i) attention paid to addressing sustainability.

Brownson et al. (2011) developed four types of policy briefs on mammography screening and sent them to three groups of state-level policy makers, legislative staff, legislators, and executive branch administrators, to measure their understandability, credibility, and likelihood to be used and/or shared. They found that the likelihood of using the briefs was highest among the legislators, among women, those older than 52 years with a graduate education, and those who identified themselves as socially liberal. However, they also found that each of the groups of policy makers preferred a different type of brief, data focused versus story focused and state versus local data, so that the "one-size-fits-all" approach when delivering information to policy makers may be less effectives than communicating information based on the type of policy maker.

The literature discusses many ways to facilitate the uptake of research to policy, yet it is widely recognized that it is still a difficult challenge (Dickson & Flynn, 2009; Hinshaw & Grady, 2011). However, experience has taught that there are several key strategies that will increase the likelihood that policy makers will use evidence in their decision making for policy development. First, and most important, is for the researcher

to develop effective two-way communication with the policy maker. This should begin ahead of the policy question reaching the public agenda. An open dialogue between the research community and the policy makers about health care issues of concern in real time will increase the likelihood that each communicates the needs in the research and policy-making processes. Second, it is important that researchers take the time to ensure that the research is perceived as timely, relevant, and of high quality.

In today's environment, the inclusion of effectiveness data as evidence is a key to success in informing choices that both clinicians and patients are confronting. New evidence that affects comparative effectiveness should be reviewed and incorporated when relevant and appropriate (Coopey, James, Lawrence, & Clancey, 2008).

Finally, because of the abundance of data and information available to policy makers, strategies that provide a synthesis of the relevant evidence to inform policies is critical for uptake. The Robert Wood Johnson Foundation (RWJF) developed the Synthesis Project (Figure 7.1) to give policy makers access to reliable information, develop insights into complex policy decisions, and produce briefs and reports that synthesize research findings on perennial health policy questions. The project started with a question: Why aren't research results more useful to policy makers? (Colby, Quinn, Williams, Bilheimer, & Goodell, 2008). Policy makers answered and identified three needs for use of research evidence in the development of policy: clear translation, accessible and easy-to-use information, and relevance to the policy context (Colby et al., 2008). They explained that policy makers are besieged with information, but results are not translated for policy decisions; research does not address pressing policy questions; journal articles and research reports are written for researchers, not policy makers; and policy makers have little time to stay abreast of current research (Cohen & Neumann, 2009). The RWJF Synthesis initiative developed products to address policy makers' requests for short, skimmable, and policy-focused information, focusing on the findings, not the methods (Colby et al., 2008). They developed policy briefs, research synthesis reports, and data charts. These project deliverables are structured around policy questions rather than research issues; they distill and weigh the strength of research evidence in a rigorous and objective manner; and they draw out the policy implications of findings (http://www.rwjf.org/pr/synthesisabout.jsp). Finally, they attempt to tell a "synthesis story" that addresses four

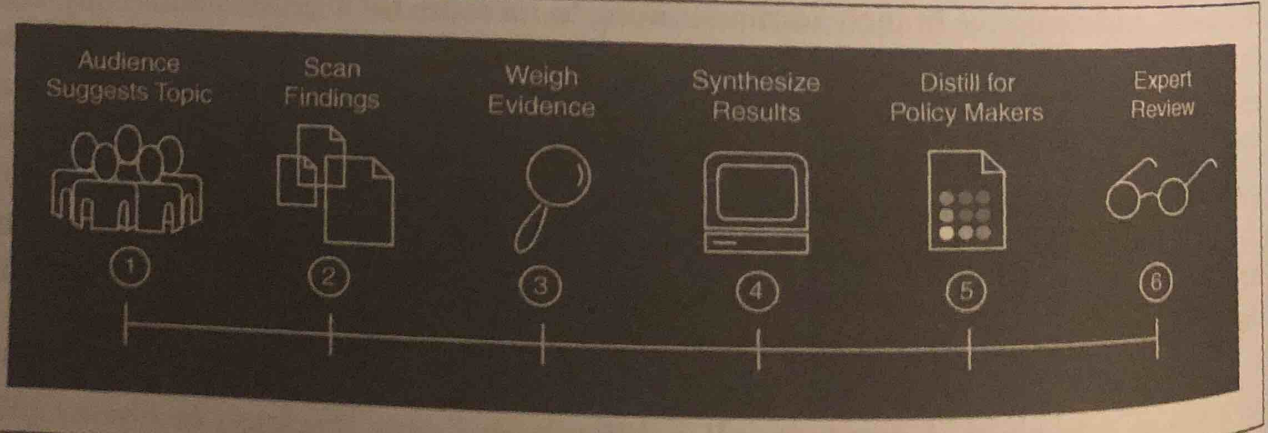

FIGURE 7.1 The Robert Wood Johnson Foundation Synthesis Project framework.

Source: Cohen and Ne...

questions: (a) Why is this of interest to policy makers? (b) What "story" does the evidence tell? (c) What choices does the evidence suggest would be most effective? (d) What are the implications for policy makers (Colby et al., 2008)?

There are two other valuable techniques that are used to synthesize data and evidence for policy makers. The policy brief, often referred to as the "two pager," is written by those trying to influence or impact a policy maker or a decision. The purpose of a policy brief is to assist the policy maker to evaluate policy options on a specific issue. Policy briefs offer policy options informed by evidence with rationale and consequences for choosing each option. The brief usually makes a recommendation for a preferred and specific course of action (see Box 7.1).

The second technique is a research approach that systematically reviews the evidence to reduce a large amount of evidence on an issue of concern and reports a synthesis of the evidence that determines the quality, quantity, and consistency of that evidence (Dobbins, 2010; Dobbins, Cockerill, & Barnsley, 2001; Yost, 2014). A systematic review applies defined scientific methods to appraise and summarize the evidence. As part of

BOX 7.1

How to Write a Policy Brief: The Two Pager

Components of a Policy Brief

1. **Executive summary or abstract**—The executive summary or abstract should be a short summary of approximately 150 words, which states clearly and succinctly the purpose of the policy brief and its recommendations.
2. **Statement of the issue/problem**—The statement of the issue is the first section of the policy brief and is a short statement of the problem with a clear description of a definition of the issue. Sometimes the statement of the issue is phrased as a question that requires a decision.
3. **Background section**—The background section describes the background and history of the issue. Be clear, precise, and succinct. This section should include only the essential facts that a decision maker "needs to know" to understand the context of the problem. There are usually reams of information that can be included in this section; however, consider that your job is to filter all the possible information about this issue and what you think the policy maker really needs to read. For example, discuss any preexisting policies, any policy options that have been considered in the past, or merely describe what has taken place in the past or been done by others for and against this issue. It is important to note that the absence of action in the past may be considered a policy decision.

(continued)

BOX 7.1 (*continued*)

How to Write a Policy Brief: The Two Pager

4. **Statement of your organization's interests in the issue**—The statement of your organization's interest in the issue is important to remind the policy maker or reader of why the issue matters for that organization, group, or the country.
5. **Policy options**—The policy options section of the policy brief delineates the possible courses of action or inaction. Usually the decision maker is given at least three potential courses of action. Those three courses of action include the status quo, maximum change, and some policy option in between no action and maximum change. Sometimes there is more than one choice in between, which then increases the number of policy options and the complexity of decision making. Include the advantages and disadvantages of each policy option.
6. **Recommendation**—In the recommendation section, state what your recommendation is for action. This is usually done by prioritizing the relative pros and cons of the options presented and then making a recommendation of one option.
7. **Sources or consultations**—Include references, sources of information, and interviews or consultations conducted with experts on the issue.

those scientific methods, the systematic review attempts to identify and limit bias and improve the reliability of any recommendations proposed from the synthesis of the evidence. Murthy et al. (2012) reviewed eight studies evaluating the effectiveness of the use of systematic reviews. The overall synthesized quality of the evidence reviewed was low to moderate. They concluded that a mass mailing of the systematic review evidence can be an effective strategy to get the message out if there is growing awareness of the need for the change. However, if the goal is to develop awareness and share new evidence, a multifaceted approach is necessary.

The combination of the information from many studies on a specific issue can increase the strength of the overall evidence more than any one study result could yield, increasing its power (see Box 7.2).

■ CONCLUSION

This chapter has discussed the importance of translating new evidence into practice and policy. For evidence to be translated into policy, the evidence must be communicated in an understandable and accessible manner to policy makers. Lavis, Posada, Haines,

BOX 7.2

What Is a Systematic Review?

A systematic review is a summary of the literature that uses explicit methods to perform a comprehensive literature search and critical appraisal of individual studies. This critical appraisal reviews for strength, quality, and consistency of the evidence. The review may also use appropriate statistical techniques to combine these valid studies (Straus, Richardson, Glasziou, & Haynes, 2005). A systematic review provides a mechanism to identify studies with strong and weak designs and limit the bias of the weaker designs that might overestimate the effects or benefits of the evidence.

For policy making, the systematic review uses specific and reproducible search strategies to generate evidence to answer a specific policy question. The systematic review provides the strongest type of evidence that is available on the policy issue, both published and unpublished. A review of the strength and quality is conducted on all of the existing evidence on that policy topic/question (Jadad et al., 1996). The review of the evidence is then combined into a single analysis where explicit methods are used to limit bias and to evaluate the quality of the evidence (GRADE* Working Group, 2004).

Websites that house current systematic reviews of evidence include:

www.cochrane.org

www.joannabriggs.edu.au

www.ahrq.gov OR www.ngc.gov

and Osei (2004) recommend using systematic reviews to summarize new evidence and answer three simple questions for policy makers: (a) Could it work? (b) What will it take to make it work? and (c) Is the balance of risk and benefit worth it?

However, politics will always have a role in policy making. When it comes to the translation of research into health care policy, attention must be directed to recognizing the importance of the current health care policy agenda and how problems or issues got on and off the policy agenda. This also means regularly interacting with policy makers to understand what is currently making news, what is of interest to all of the audiences with which they have to contend (consumers, policy makers, and practitioners alike), and finding out what the policy questions are for which they need data to answer. This would create a perfect world where policy is informed with evidence and that policy could be directed to improve health and reduce health inequalities in our health care system.

■ REFERENCES

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins. (2009). ACOG Practice Bulletin. No. 107. Induction of Labor. *Obstetrics & Gynecology, 114*, 386–397.

Anderson, J. E. (2011). *Public policymaking: An introduction* (7th ed.). Boston, MA: Wadsworth Cengage Learning.

Armstrong, R., Whaters, E., Dobbins, M., Anderson, L., Moore, L., Petticrew, M., . . . Swinburn, B. (2013). Knowledge translation strategies to improve the use of evidence in public health decision making in local government: Intervention design and implementation plan. *Implementation Science, 8*, 121.

Brownson, R. C., Chriqui, J. E., & Stamatakis, K. A. (2009). Understanding evidence-based public health policy. *American Journal of Public Health, 99*(9), 1576–1583.

Brownson, R. C., Dodson, E., Stamatakis, K., Casy, C., Eltite, M., Luke, D., . . . Kreunter, M. (2011). Communicating evidence-based information on cancer prevention to state-level policy makers. *Journal National Cancer Institute, 103*(4), 306–316.

Brownson, R. C., & Jones, E. (2009). Bridging the gap: Translating research into policy and practice. *Preventive Medicine, 49*(4), 313–315.

Brownson, R. C., Royer, C., Ewing, R., & McBride, T. D. (2006). Researchers and policymakers: Travelers in parallel universes. *American Journal of Preventive Medicine, 30*(2), 164–172.

Caplan, N. (1979). The two-communities theory and knowledge utilization. *American Behavioral Scientist, 22*(3), 459–470.

Caplan, N. S., Morrison, A., & Stambaugh, R. J. (1975). *The use of social science knowledge in policy decisions at the national level: A report to respondents*. Ann Arbor, MI: University of Michigan.

Cohen, J., & Neumann, P. (2009). *The cost savings and cost-effectiveness of clinical preventive care*. [Table of contents]. Robert Wood Johnson Foundation Research Synthesis Report No. 18. Retrieved from http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2009/rwjf46045/subassets/rwjf46045_1

Colby, D. C., Quinn, B. C., Williams, C. H., Bilheimer, L. T., & Goodell, S. (2008). Research glut and information famine: Making research evidence more useful for policymakers. *Health Affairs, 27*(4), 1177–1182.

Coopey, M., James, M. D., Lawrence, W., & Clancy, C. M. (2008). The challenge of comparative effectiveness: Getting the right information to the right people at the right time. *Journal of Nursing Care Quality, 23*(1), 1–5.

Department of Health and Human Services, Center for Medicare and Medicaid Services. (2011). *Hospital-acquired conditions*. Baltimore, MD: Authors. Retrieved from http://www.cms.gov/HospitalAcqCond/06_Hospital-Acquired_Conditions.asp

Dickson, G., & Flynn, L. (2009). *Nursing policy research: Turning evidence-based research into health policy*. New York, NY: Springer Publishing Company.

Dobbins, M. (2010). Dissemination and use of research evidence for policy and practice. In J. Rycroft-Malone & T. Bucknall (Eds.), *Models & frameworks for implementing evidence-based practice*. Chichester, UK: John Wiley & Sons.

Dobbins, M., Cockerill, R., & Barnsley, J. (2001). Factors affecting the utilization of systematic reviews: A study of public health decision makers. *International Journal of Technology Assessment in Health Care, 17*(2), 203–214.

Dobbins, M., Ciliska, D., Cockerill, R., Barnsley, J., & DiCenso, A. (2002). A framework for the dissemination and utilization of research for health-care policy and practice. *Online Journal of Knowledge Synthesis for Nursing, 9*(7), 149–160.

Gold, M. (2009). Pathways to the use of health services research in policy. *Health Services Research, 44*(4), 1111–1136.

GRADE* Working Group. (2004). Grading quality of evidence and strength of recommendations. *British Medical Journal, 328*(7454), 1490–1494.

Green, A., & Bennett, S. (Eds.). (2007). *Sound choices: Enhancing capacity for evidence-informed health policy*. Geneva, Switzerland: World Health Organization.

Hinshaw, A. S., & Grady, P. (Eds.). (2011). *Shaping health policy through nursing research*. New York, NY: Springer Publishing Company.

Innvaer, S., Vist, G., Trommald, M., & Oxman, A. (2002). Health policy-makers' perceptions of their use of evidence: A systematic review. *Journal of Health Services Research & Policy, 7*(4), 239–244.

Irvin, C. B., Afilalo, M., Sherman, S. C., Stack, S. J., Huckson, S., Kanji, A., & Skin, B. (2007). The use of health care policy to facilitate evidence-based knowledge translation in emergency medicine. *Academic Emergency Medicine, 14*(11), 1030–1035.

Jacobson, N., Butterill, D., & Goering, P. (2003). Development of a framework for knowledge translation: Understanding user context. *Journal of Health Services Research & Policy, 8*(2), 94–99.

Jadad, A. R., Moore, R. A., Carroll, D., Jenkinson, C., Reynolds, D. J., Gavaghan, D. J., & Quay, H. J. (1996). Assessing the quality of reports of randomized clinical trials: Is blinding necessary? *Controlled Clinical Trials, 17*(1), 1–12.

Jilcott, S., Ammerman, A., Sommers, J., & Glasgow, R. E. (2007). Applying the RE-AIM framework to assess the public health impact of policy change. *Annals of Behavioral Medicine, 34*(2), 105–114.

Kamien, M., & Schwartz, N. (1975). Market structure and innovation: A survey. *Journal of Economic Literature, 13*, 1–37.

Kelley, B., & Papa, K. (2012). *Academy health research insights: Using HSR to influence policy change and population health improvement*. Washington, DC: Academy Health.

Kingdon, J. W. (2003). *Agendas, alternatives, and public policies* (2nd ed.). New York, NY: Addison-Wesley Educational Publishers.

Lavis, J., Oxman, A., Lewin, S., & Fretheim, A. (2009). SUPPORT Tools for evidence-informed health Policymaking (STP). *Introduction. Health Research Policy and Systems, 7*(Suppl. 1), 478–505. Retrieved from http://www.health-policy-systems.com/content/pdf/1478-4505-7-S1-11.pdf

Lavis, J. N. (2006). Research, public policymaking, and knowledge-translation processes: Canadian efforts to build bridges. *The Journal of Continuing Education in the Health Professions, 26*(1), 37–45.

Lavis, J. N., Lomas, J., Hamid, M., & Sewankambo, N. K. (2006). Assessing country-level efforts to link research to action. *Bulletin of the World Health Organization, 84*(8), 620–628.

Lavis, J. N., Posada, F. B., Haines, A., & Osei, E. (2004). Use of research to inform public policymaking. *The Lancet, 364*(9445), 1615–1621.

Lavis, J. N., Robertson, D., Woodside, J. M., McLeod, C. B., & Abelson, J. (2003). How can research organizations more effectively transfer research knowledge to decision makers? *The Milbank Quarterly, 81*(2), 221–248.

Lavis, J. N., Ross, S. E., Hurley, J. E., Homemade, J. M., Stoddert, G. L., Woodward, C. A., & Abelson, J. (2002). Examining the role of health services research in public policymaking. *The Milbank Quarterly, 80*(1), 125–154.

Lewis, S. (2011). How research influences policy makers: Still hazy after all these years. *Journal National Cancer Institute, 103*(4), 286–287.

Lynch, T., & Gregor, S. (2003). Technology-push or user-pull? The slow death of the transfer-of-technology approach to intelligent support systems development. In S. Clarke, E. Coaches, M. G. Hunter, & A. Winn (Eds.), *Socio-technical and human cognition elements of information systems*. Hershey, PA: Information Science Publishing.

Mason, D., Chaffee, M., & Leavitt, J. (2011). *Policy & politics in nursing and health care* (6th ed.). St. Louis, MO: Elsevier Saunders.

Mercer, S. L., Sleet, D. A., Elder, R. W., Cole, K. H., Shultz, R. A., & Nichols, J. L. (2010). Translating evidence into policy: Lessons from the case of lowering the legal blood alcohol limit for drivers. *Annals of Epidemiology, 20*(6), 412–420.

Murthy, L., Shepperd, S., Clarke, M., Garner, S., Lavis, J., Perrier, L., . . . Straus, S. (2012). Interventions to improve the use of systematic reviews in decision-making by health system managers, policy makers and clinicians. *Cochrane Database Systematic Reviews, 9*, CD009401.

Naylor, M., & Sochalski, J. A. (2010). Scaling up: Bringing the transitional care model into the mainstream. *Commonwealth Fund, 103*, 1–12.

Naylor, M. D., Broken, D. A., Campbell, R. L., Maslin, G., McCauley, K. M., & Schwartz, J. S. (2004). Transitional care of older adults hospitalized with heart failure: A randomized, controlled trial. *Journal of the American Geriatrics Society, 52*(5), 675–684.

Naylor, M. D., Feldman, P. H., Keating, S., Koran, M. J., Kurtzman, E. T., McCoy, M. C., & Krakauer, R. (2009). Translating research into practice: Transitional care for older adults. *Journal of Evaluation in Clinical Practice, 15*(6), 1164–1170.

Nieva, V. F., Murphy, R., Ridley, N., Donaldson, N., Combes, J., Mitchell, P., . . . Carpenter, D. (2005). From science to service: A framework for the transfer of patient safety research into practice. In K. Henriksen, J. Battles, & D. Lewin (Eds.), *Advances in Patient Safety: From research to implementation* (Volume 2: Concepts and Methodology). Rockville, MD: Agency for Healthcare Research and Quality (US).

Nutley, S., Walter, I., & Davies, H. (2003). Moving from knowing to doing: A framework for understanding the evidence-into-practice agenda. *Evaluation, 9*(2), 125–148.

Pollack, K. M., Samuels, A., Frattaroli, S., & Gielen, A. C. (2010). The translation imperative: Moving research into policy. *Injury Prevention, 16*(2), 141–142.

Rütten, A., Lüschen, G., von Lengerke, T., Abel, T., Kannas, L., Rodríguez Díaz, J. A., . . . van der Zee, J. (2003). Determinants of health policy impact: A theoretical framework for policy analysis. *Sozial- und Präventivmedizin, 48*(5), 293–300.

Schmid, T. L., Pratt, M., & Witmer, L. (2006). A framework for physical activity policy research. *Journal of Physical Activity and Health, 3*(Suppl. 1), S20–S29.

Sorian, R., & Baugh, T. (2002). Power of information: Closing the gap between research and policy. *Health Affairs, 21*(2), 264–273.

Straus, S. E., Richardson, W., Glasziou, P., & Haynes, R. (2005). *Evidence-based medicine: How to practice and teach evidence-based medicine* (3rd ed.). London, UK: Elsevier.

Tomson, G., Paphassarang, C., Jönsson, K., Houamboun, K., Akkhavong, K., & Wahlström, R. (2005). Decision-makers and the usefulness of research evidence in policy implementation—A case study from Lao PDR. *Social Science & Medicine, 61*(6), 1291–1299.

Weinick, R. M., & Shin, P. W. (2003). *Monitoring the health care safety net: Developing data-driven capabilities to support policymaking.* Washington, DC: Agency for Healthcare Research and Quality.

Weiss, C. (1979). The many meanings of research utilization. *Public Administration Review, 39*(5), 426–431.

White, K. M. (2008). The new CMS payment system: Too much, too soon? *Nursing Management, 39*(10), 38–42.

World Health Organization. (n.d.). *Evidence-informed policy making.* Retrieved from http://www.who.int/evidence/en/

Yost, J., Thompson, D., Ganann, R., Aloweni, F., Newman, K., McKibbon, A., . . . Ciliska, D. (2014). Knowledge translation strategies for enhancing nurses' evidence-informed decision making: A scoping review. *Worldviews on Evidence-Based Nursing, 11*(3), 156–167.