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Forging the Missing Link: From Nursing Research to Health Policy

Ada Sue Hinshaw and Patricia A. Grady

Forging the missing link is the phrase that signifies the challenging journey of nurse investigators and teams in moving their research programs into health policy. The compelling descriptions of the programs of these investigators and their colleagues, given in earlier chapters, provide evidence of how their research shaped health policy at the local, community, state/province, national, and international levels. As pioneers in building long-term research programs to guide practice, they have each individually extended their capability in advancing nursing's influence on health policy as well. All have influenced health policy and some have additionally shaped science policy.

Analyzing the experiences of these scientists, a number of general themes or issues need to be made explicit. These issues need to be used by other colleagues and must be taught as part of nursing undergraduate and graduate programs. In addition, many lessons and strategies for informing health policy have been learned during these pioneering research programs—lessons that are important to summarize in this text for the benefit of the nursing discipline and the scientific community.

This final chapter will examine the following:

- Those general issues identified across the scientific and health policy endeavors relating to the ways in which nursing research informing health policy.
- The numerous "lessons learned" by senior nurse investigators as they shaped health policy through the use of their research programs and the expertise they gained from their scientific endeavors.
- The issues identified and the lessons learned, illustrated through the examples provided by the nurse scientists in their stories of how nursing research shaped health policy.

GENERAL ISSUES: NURSING RESEARCH SHAPING HEALTH POLICY

Several general issues were identified that surfaced across the multiple experiences outlined by the authors in describing how their research programs shaped health policy. Five general issues will be discussed: (1) influence on several levels of health policy, (2) various

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types of models that provide the context for understanding nursing research shaping health policy, (3) multiple factors besides and, sometimes, instead of research, that inform health policy, (4) long-term planning for nursing research programs to shape health policy as an important factor in scientific programs and training, and (5) influence on the general direction of the nursing profession while in addition to shaping health policy.

Levels of Health Policy

Nursing research has informed health policy at multiple levels of policy making. The long-term scientific programs of the authors indicate that most research programs shaped several levels of health policy, from local organizations to international practice and quality guidelines. Some of the authors clearly intended their research to have a local practice influence, such as with Metheny's studies of tube feeding and the proper placement of such tubes. Her research provided the science required for evidence-based practice in placing feeding tubes, and rapidly decreased the consequences and illnesses that resulted from improper placement. This had been her initial purpose for the studies and no one was more surprised than Metheny when her work had greater widespread influence through textbooks used for several health professions, e.g., nurses, nutritionists, and physicians. In addition, her scientific endeavors informed a national American Association of Critical Care Nurses Practice in 2005 and federal reports from the U.S. Food and Drug Administration. What had begun as a local issue spread to influence the practice of multiple health professionals at state and national levels. Sampselle's research program on the prevention of urinary incontinence (UI) also started as a local concern and initially influenced organizational ambulatory clinics, especially those focused on women's health issues. Collaborating with the national organization, Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), she and others repeated the interventions substantiated from the research in multiple clinics around the country and evaluated their translated effectiveness. This resulted in the evidence-based interventions being incorporated in numerous clinics across the country. Based on her scientific endeavors, Sampselle participated in national and international guideline task forces, using her expertise and her research findings to formulate new health policy guidelines at several levels of policy making.

The community level of health policy making and influence is clearly evident in the Gross and Crowley endeavors. Their focus on health promotion and prevention in early childhood resulted in the development and study of the Chicago Parent Program. A program for preschool children of low-income communities, it focused on promoting positive parenting and child mental health by concentrating on the issues of parents raising young children in low-resource environments. The success of the program is evident by its incorporation as one of the recommended interventions for Head Start in Chicago, an exciting evidence-based program that makes an investment in young children who are the future of society—an investment that will pay off for a number of years.

Aiken's and O'Brien-Pallas and Hayes' research programs have greatly influenced the U.S. state and Canadian province levels of health policy. Aiken and her colleagues have focused on the work environment of nurses and the impact of that environment on both nurse and patient outcomes. She has especially studied one factor in the environment, i.e., the adequate staffing of nurses and what that means for nurses and patients. Scientific endeavors from this program of research have provided important findings relating to the number of patients that a nurse can safely handle before patient mortality begins to

increase, failure-to-rescue incidents increase, and burnout and job dissatisfaction occur for nurses. In addition, her research has shown the greater safety of patients with better educated nurses. These data have been used in crafting state laws (e.g., California) to recommend the optimum number of patients that nurses can care for at one time. Nationally, she has provided testimonies for the U.S. Congress and the Institute of Medicine (IOM) relating to these same findings. O'Brien-Pallas and Hayes describe the scientific endeavors of the team of colleagues studying health and human resource strategies for nursing in Ontario, Canada. O'Brien-Pallas and her team were awarded a major center, the Nursing Health Services Research Unit, for developing large databases from which they could provide human resource projections based on the needs of the population, including evaluated health outcomes for the population and the provider. Their work has guided many of the policies in Canadian provinces for human health resource needs. Because of her success in identifying the number of nurses needed to provide healthcare under various conditions, she has participated in numerous national task forces and given testimonies for national health policy making as well.

Naylor and Kurtzman describe the manner in which nursing research has shaped national health policy in terms of a new, well-substantiated model for healthcare: transitional care. Transitional care consists of care provided by advanced practice nurses during the period of time from discharge from the hospital to being settled in either a home or nursing facility. Naylor and her colleagues have primarily studied this model with elderly adults who are experiencing hospitalization for some medical problem. They have measured both the health outcomes for these patients and the economic costs of using such a transitional model. The economic value has been apparent mainly by keeping elderly patients from being readmitted to the hospital and having fewer consequences of their illnesses. This research program, substantiated by other investigators, has caught the attention of the American Association for Retired Persons (AARP) and is part of the healthcare reform plans in the U.S. President's 2010 budget according to the Office of Management and Budget, as well as part of congressional legislative proposals.

A fewer number of nursing research programs shape health policy at the international level. Holzemer's program of research, "Living Well With HIV/AIDS," describes how he has used his expertise in this area to influence health policy both nationally and internationally. Although the specific results of his own research were not always utilized, his expertise based on the research program placed him in a number of leadership positions with the IOM, the International Council of Nurses, and others to influence guidelines on the prevention and care of individuals with HIV/AIDS. Some of the nurse researchers mentioned earlier, such as Sampselle, have also been instrumental in forming international practice guidelines for conditions such as UI.

These examples of nurse researchers provide evidence of some of the influence that nursing research has had on the shaping of health policy at multiple levels. For a discipline with approximately 25 years of stable funding for its research endeavors, this level of informing health policy is remarkable.

Models Providing Context for Shaping Health Policy

In this section, the models referred to are those that articulate the processes or context for using research in shaping health policy. Most of the research programs in this text are guided by theoretical frameworks that explain the expected relationships among the

concepts and their staging. These are different from the models relating nursing research and health policy.

Several models are outlined for moving research into health policy. Both Feetham and Hinshaw address the use of the Richmond and Kotelchuck model that consists of three components: knowledge and information, political will, and social action or new policy programs. This general model provides a context for understanding the major aspects of research and policy without itemizing the process of moving them together. Feetham also speaks of an evidentiary model that makes explicit the multiple bodies of knowledge and research needed and used to inform health policy. Shamian and Shamian-Ellen provide a more detailed model that provides both context and process. The stages of the model identify the context of what is being done, i.e., Getting to the Policy Agenda and Moving Into Action. The steps in the model outline the process of using research or knowledge to reach the endpoint of policy making: regulation, adaption, and revision of a policy and the ensuing program. Hinshaw and Heinrich use the model of Shamian and her colleagues to illustrate the establishment of the National Institute of Nursing Research (NINR) within the mainstream of scientific investigation in the United States. Block's model, addressed in Hinshaw's chapter, is an excellent example of most of the process models in health policy: agenda settings, policy formulation, policy adoption, policy implementation, policy assessment, and policy modification.

The important point in acknowledging the multiple models that address the context and processes for moving research into health policy is for the discipline of nursing to understand that such models are critical in policy scholarship. The use of theoretical frameworks for explaining relationships and stages in nursing research is well established, but the use of research to policy models needs to be just as explicit.

Multiple Factors Inform Health Policy

Numerous factors are active in shaping health policy. Several of these factors were most influential in terms of the scientific endeavors of these investigators. The recent economic climate was a major factor in reversing the telehealth programs that Finkelstein was able to institute as part of state health policy and programming. In several incidents, he was able to convince the state to fund telehealth programs only to have the funds withdrawn when the state experienced economic difficulties. The second factor involved with Finkelstein's difficulty in sustaining changes in telehealth programming and policies was the lack of reimbursement for such health interventions. In slow economic periods, it was also not possible to promote legislation for new telehealth programs. It was a different story for Naylor's transitional model of care, as legislation for reimbursement was introduced by the AARP. Two major situational factors might have accounted for the differences. Naylor's research showing significant cost savings with transitional care was substantiated by others across several disciplines. Also, she had been successful in convincing a major, large-member organization, i.e., the AARP, of the importance of the evidence-based care model. The AARP is a major lobbying organization with a very large voting membership. However, Naylor was facing a particularly difficult challenge, i.e., a change in culture in terms of offering care across settings (hospital to nursing facility to home). Reimbursement is essentially structured by setting.

Sometimes, the changes recommended by the findings of research programs were quite complex and required changes in cultures and attitudes. For example, Naylor's

recommendation of transitional care requires a change in the basic structure of reimbursement for healthcare in order to cut across several settings. Evans and Strumpf confronted a similar situation with their research recommendations to change the use of restraints in nursing facilities with only limited use of such a technique. Nursing facilities were used to placing a number of elder patients in restraints of some type—it was the common practice of the day. It was necessary to change the regulations and accreditation standards governing nursing facilities, as well as to experience several media exposés in order to bring about the changes suggested by their research program.

Several other research programs were influenced by a shifting political climate in terms of scientific endeavors being able to shape health policy. Villarruel and Jemmott's research programs indicated that abstinence was not as effective a method as a safe-sex intervention for young adolescents in controlling undesired pregnancies or sexually transmitted diseases. However, at the time their research could be used to shape health policy, the political climate was not conducive to such findings being heard or adopted. O'Brien-Pallas and her team's research findings on health human resources were used and sought much more during periods of nursing shortage. A shortage of nurses brought political pressure on government policy makers to search for information and strategies for handling this major healthcare problem. When there is no nursing shortage, careful and systematic projections are less likely to be in demand. These are examples of the influence of a shifting political climate on the ability of nursing research to shape health policy.

Both Sampselle and Tilden focus their research programs on areas that are very sensitive to the public, another factor that influences public debate and health policy making. Urinary incontinence is a subject not easily discussed because of the personal and private nature of this type of condition. Thus, as important as strategies for handling this condition are, they are not apt to be the subject of public discourse except in healthcare forums. Not often will UI reach a congressional forum unless a strong champion can be identified who is willing to discuss such an intimate topic. Tilden's research program in end-of-life care is a very different type of subject, but death is not easy for individuals to discuss either. Thus, special circumstances need to occur for public debates to focus on such topics. The fact that a sizeable percentage of the healthcare dollar is spent in the last period of a person's life made end-of-life wishes of the family a major health policy issue in Oregon. Thus, the necessary debates and policy changes could occur.

Long-Term Planning to Shape Health Policy

Long-term planning in terms of nursing research programs informing health policy was limited to only a few of the investigators and their teams. It is common for research programs to be focused on providing information to influence nursing practice, but a newer concept for long-term strategic planning for results is needed to shape health policy. How is it possible to predict the future and strategically plan for research findings that could inform health policy? Health and healthcare challenges that loom on the horizon will ultimately bring undesirable consequences to society and, thus, will lead to health policy changes. It is these healthcare challenges that need to be identified in order to guide an investigator's research programs when they match the science that is being pursued by the researcher.

Aiken and her team consistently plan their research based on the work environment issues and the nursing shortage cycles for results that will be able to shape health policy in the future. The Nursing Health Services Research Unit of O'Brien-Pallas was instituted for the purpose of monitoring the human resource needs of Ontario, Canada, and developing major databases that could be used for future projections. Naylor and her colleagues' research programs have been planned during their last several investigations to provide information, such as refined economic and quality measures, to convince policy makers that transitional care can be effective and can lower healthcare costs. Only with such data might there be a stronger possibility of obtaining reimbursement for such care. These are examples of research programs that have anticipated healthcare challenges and have planned for producing data that would be valuable in shaping the healthcare debates and, ultimately, health policy.

Providing Direction for Nursing's Path

Several of the nurse investigators illustrated how their research programs provided new direction for nursing practice and resulted in changes in the attitudes of nurses and the environment. Evans and Strumpf's research program changed the entire face of nursing facilities and how elderly people were treated. Restraints have become rare occurrences, and communication and attention to specific needs are more frequent. This changes the entire environment. O'Brien-Pallas and her team have changed the variables involved in understanding and monitoring the projection and use of human resources during periods of high and low supply. Adding concepts of multiple outcomes that need to be considered within the context of the population studied has changed how human resources, such as nurses, are viewed and treated. The establishment of the NINR as described by Hinshaw and Heinrich has changed science policy and, thus, health policy by bringing new perspectives to the scientific inquiry in health. For nursing, the NINR provided a stable funding base, an important credibility to the discipline's science by its placement at the National Institutes of Health, and an ever-growing and evolving body of knowledge from which to influence practice and inform health policy.

LESSONS LEARNED

What are some of the lessons learned from the preceding chapters that can be generalized to facilitate policy change through research? Clearly, the overall significance of the problem selected for study maximizes the potential for making an impact. The greater the public health importance, the more people will be affected and the likelier any research results are to be noticed. However, beyond this, several other factors emerge from these programs of research: the value of economic outcome, the "window of opportunity," gaps in knowledge, strategies for turning nursing research into health policy, stakeholder involvement, and barriers and roadblocks.

Value of Economic Outcomes

One way to communicate clearly the possible impact of the research is to incorporate an economic model or economic indicators. Not all research studies lend themselves to this approach. The overall impact can be inferred by the significance of the problem, number

of people affected, number of workdays missed, or decreased lifespan, for example. For a more compelling argument, it is often helpful to include economic indicators to demonstrate improvement on health outcomes and to tie those outcomes to cost savings to present a clear, measurable case for the benefits of change. Examples of this approach are shown in the work of Drs. Naylor and Kurtzman, O'Brien-Pallas and Hayes, and Finkelstein and Cady.

The early tests of the Transitional Care Model of Naylor et al. demonstrated improved patient satisfaction, reduced rehospitalizations, and reduced healthcare costs among the intervention group of patients compared with controls. Despite these consistently positive results, this work did not receive wide acceptance, although it was acclaimed. Adding a way to measure cost savings to the design gave a clear way to translate the positive health outcomes of decreased rehospitalizations into cost savings. Two additional steps enhanced the impact. In one study, the researchers selected a patient sample with "common medical and surgical" conditions, which represented the top 10 categories of Medicare reimbursement. Yet another study focused on the elderly with heart failure, one of the groups most resistant to treatment. Thus, the case was readily made for the effectiveness of the intervention in the most predominant and hard-to-treat elderly.

Finkelstein's approach was twofold in considering the value of economic factors. It was important to first overcome the perception that technology is expensive and would therefore increase costs and, second, to show concrete outcomes that technology actually could decrease costs. It was also important to demonstrate that patients were satisfied with care that was technologically delivered or augmented, thus overcoming the perception that machines were replacing human caregivers with the goal of saving money. The approach he used was that technology is an adjunct to enhance or complement standard care and be more cost effective. One last point made to offset the cost versus care concern was that study subjects were reluctant to give up their virtual visits at the end of the study because they did not want to lose the regular visits made possible by the technology. Outcomes included decreased emergency room visits, higher use of pharmacy delivery services, and lower use of transportation services.

Thus, by using objective, measurable outcomes, Finkelstein provided the data available for Centers for Medicare and Medicaid Services (CMS) changes in reimbursement. He also provided data to assure critics of the acceptability of this approach by including quality-of-life satisfaction data.

In a somewhat different manner, O'Brien-Pallas and her collaborators showed the cost effectiveness of appropriate use of human resources. In doing so, she used more global measures of cost such as absenteeism and retention of workforce. She did, however, link her measures to those in which the Canadian government had an interest, which enabled a more direct link to national policy. This work is in contrast to that of Aiken, who links nurse staffing to patient outcomes and patient safety.

Windows of Opportunity

Another important lesson shown by the researchers in this volume is that of recognizing and taking advantage of a window of opportunity. Convergence of factors, societal trends, changes in thinking, advances in technology, and emergence of new health issues can all lead to a window of opportunity and enhance the probability of changing policy.

An excellent example of this is the creation of the NINR described by Hinshaw and Heinrich. More nurses were doing research, the science was developing, and an IOM report was released, calling for the formation of an institute to support this type of research. The nursing community began to unify around a compelling idea. Champions were developing in the Congress and from a national political perspective; the idea of doing something visible and supportive of women was getting traction in the middle to late 1980s. The creation of the NINR was a tribute to the synergizing of all of these factors and still stands as a visible tribute to what the nursing community can accomplish as a united force.

The window of opportunity for Dinges' work hinges on patient safety and societal safety related to the effects of partial sleep on formal and informal caregivers, National Aeronautics and Space Administration astronauts, shift workers of all walks of life, and the military. His work shows the dramatic and detrimental effects that decreased or poor quality sleep can have on executive and motor function. With the increasingly compelling evidence, agencies responsible for caregiving and safety of various populations are moving toward instituting safeguards.

For the work of Naylor et al., the primacy of HMOs, health insurance companies, and the rebuilding of the CMS have set the stage for receptivity of this work, but the effort being put into healthcare reform has opened a wide window of opportunity. Congressional hearings have been held, which have provided a platform for presenting the Transitional Care Model and its promise of higher quality of care with cost effectiveness.

For Stanley Finkelstein, the window has opened with the coming of age of many new technologies that can be utilized in the healthcare arena. This is coupled with the increasing population of mobile, independent adults with chronic illness versus those previously largely in hospitals or extended care facilities. In addition, our population is more widely dispersed geographically, raising access to care issues that may be better addressed by telehealth technologies. Societally, there is greater recognition of the health disparities that exist in our midst, and many of the new technologies may be a way to reach many of these underserved rural and urban populations.

Evans and Strumpf also benefitted from a window of opportunity that reflected larger global as well as local and societal trends. Social movements such as the Civil Rights and Women's Movements as well as the Cold War, with its "containment and control" of social and political themes, led to calls for freedom, autonomy, and humanism in our country. Against this background was the aging of the population and the recognition that care of the elderly, including those in nursing homes, was not optimal. In 1985, a clarion call for help was issued throughout the gerontology community, identifying the overuse of restraints in the elderly as a major problem and asking for help. The community became activated; the IOM report on Quality of Care in Nursing Homes was released; The National Citizens Coalition for Nursing Home Reform became active in pushing for reform; and the Nursing Home Act was passed in 1990. The Nursing Home Act included among its rights for patients the right to be free from restraints. This was the same year that Evans and Strumpf were funded to carry out their first clinical trial, which provided the data to support freedom from restraints. What a perfect window of opportunity!

Gaps in Knowledge

It is important to determine what gaps in knowledge the research is intended to fill when a problem for study is identified, and subsequently, it is important to assess what can or cannot be said from the research findings. Because good research studies often generate

as many new questions as they generate answers, the process of developing a program of research is essentially an iterative process, with later studies building on the earlier ones. Assessing the gaps for planning future studies is often a byproduct of efforts to implement findings into practice or policy. The answer to the question "If this is not convincing, what else is needed to convince them?" may be the gaps in the knowledge and the subsequent studies required to accomplish the goal of translating research into practice and policy.

This iterative process can be clearly seen in the work of Naylor et al. and Gross and Crowley, as well as Metheny and Melnyk. In underscoring the importance of research to establish evidence-based practice, Melnyk clearly speaks to the iterative nature of the process. Once something works, she points out, it is important to evaluate and fine tune the approaches in order to make them truly evidence based. Deborah Gross also employed this approach in her research with early childhood parenting and health issues. Metheny's work demonstrates a systematic approach to solving a problem and letting the results guide future studies. In order to provide an evidence base for parenteral tube feeding, she took her work from bedside to bench and, finally, to practice over the course of her program of research. Starting with auscultation, the traditional method of testing for feeding tube placement, Metheny and her team systematically evaluated various methods for ascertainment of placement. At one point, she needed to switch to an animal model in order to study aspiration. Because she determined that bilirubin concentrations in feeding tube aspirates were helpful in predicting location, Dr. Metheny et al. also developed a bilirubin test strip that could be used at the bedside.

Strategies for Turning Nursing Research Into Health Policy

There are many different models for shaping health policy, as described by Hinshaw, and a variety of ways that research can become a foundation for health policy, as described by Grady. A number of different and successful strategies were used by the investigators in this volume, and they are described in elegant detail. Linda Aiken speaks of doing "policy-relevant research," where the greater the public health issue addressed, the more likely the research results will influence health policy. Evans and Strumpf considered this when they took on an issue germane to the aging population, one that was growing in importance because of changing population demographics. Villarruel and Jemmott began their research in HIV/AIDS prevention in teenagers at a time when the disease was increasing dramatically, was becoming a chronic disease, and had begun disseminating throughout the general population, with teenagers and young adults at particular risk.

Connecting and working with the media are other strategies that were helpful in many instances. For Virginia Tilden, the interest of the leading state newspaper, *The Oregonian*, in dying provided an important venue for stories that underscored the usefulness of her team's research findings. This ultimately provided for a national forum that led to other opportunities and other publications featuring this ground-breaking research. This is a strategy that is increasingly accepted as an important adjunct to professional journal publications in order to reach broader audiences who may be instrumental in catalyzing policy change.

Providing testimony to the Congress, other federal agencies, the IOM, or advocacy groups is another approach that can lead to policy change. Having credible research results on substantive areas of interest can provide a very persuasive argument to any

of these groups and enables them to consider making recommendations (or laws in the case of the Congress) that are evidence based. Examples of this strategy are seen in the works of Naylor, Aiken, Dinges, Holzemer, and Evans and Strumpf.

National and community policy change can also be effected through working with local groups or local chapters that feed into national organizations. Gross' successful research work to improve parenting and decrease negative behaviors, which was carried out in early childcare centers in Chicago, was recognized by the commissioner of the Chicago Department of Children and Youth Services. She and her team were asked to test their program in the Early Head Start Programs for possible implementation across Chicago. They were successful, and implementation took place. This program is now being adapted elsewhere across the country.

Another example of national and community policy change was provided by the work of Villarruel and Jemmott, who, cognizant of the importance of the window of urgency in HIV/AIDS prevention, marketed their successful intervention to the CDC, which incorporated it into their education videos for HIV prevention. Thus, they have made it available to a national and even global audience.

Adoption of research findings into national guidelines that carry the imprimatur of major organizations or agencies is another way to reach the level of policy. Two good examples of this include the work of Carolyn Sampselle being adopted by the AWHONN and the work of Evans and Strumpf being incorporated into routine care of the elderly. Metheny, with the incorporation of her work into textbooks, has altered what was considered routine, safe state-of-the-art care of patients with feeding tubes.

One of the most direct ways to change policy is through legislation. Aiken's work has resulted in policy changes in California related to nurse–patient ratios, and legislation is pending in both Houses of Congress to make Naylor's Transitional Care model of care delivery reimbursable through the CMS. Evan and Strumpf's work with the Congress and the Committee on Aging led to changes in policy in HealthCare Financing Administration (HICFA), the forerunner of CMS.

At some point, individual researchers can become so identified with an area that they are able to facilitate changes in policy simply by their participation as a thought leader in an arena not directly connected to their data. Bill Holzemer embodies this spirit with his work in global and local communities in the fight against HIV/AIDS. Other examples include O'Brien-Pallas with regard to human resource utilization in Canada and Melnyk as a prime mover for evidence-based practice.

Stakeholder Involvement

Stakeholder involvement is most often key, if not essential, in making this transition from research to policy. Stakeholders are those individuals or groups who have the most to gain or lose around the issue of interest. It is useful to cast a broad net when thinking about who are the stakeholders and being more inclusive wherever possible. In particular, stakeholders offer varying perspectives and bring a real-world aspect to the research endeavor that is essential to translation into other venues. They are also likely to have a variety of contacts and networks that are outside the scope of most researchers. A good example is that of the middle-aged to older adults, who comprise the membership of AARP and to whom the issue of Transitional Care of the Elderly is of particular importance.

It is important to start including stakeholders early in the process so that they will have a vested interest in the project. Naylor, Tilden, and Finkelstein all provide interesting examples of stakeholder involvement.

Barriers and Roadblocks

It is useful to learn what barriers others have encountered and to consider what barriers might be lurking on the horizon, for those are issues that can derail or slow down progress, resulting in frustration and sometimes preventing incorporation of findings.

A frequent theme mentioned was that of "myth busting" or overcoming notions that, although incorrect, were quite entrenched. Evans and Strumpf encountered this with the use of physical restraints in the elderly; Tilden, with end-of-life decision making; Villarruel and Jemmott, with overcoming the notion that young male teenagers would not be receptive to altering intimate behaviors; and Finkelstein, with dealing with the ideas that technology would be too expensive, too difficult for patients to manage, and too impersonal to provide satisfaction with care. Each of these researchers dealt successfully in overcoming the myths, using somewhat different approaches.

The need to change entrenched traditional methods and practices also provides a challenge for those wanting to incorporate new ideas and policies. Melnyk addresses this extensively as she underscores the need to provide evidence for practices that may be the convention but are unproven; Naylor mentions overcoming the silos of care that she encountered throughout the system; and Aiken has addressed this by trying to demonstrate the relationship between nurse–patient ratios and patient safety, and between educational and experiential levels of nurses and patient safety. Attempting to translate these outcomes into policy has been challenging.

Finally, communication and dissemination of results are critical to influencing policy. How to communicate, when to communicate, where to communicate, and to whom are the critical factors. Most of our contributors have addressed this explicitly. Getting the information to the most important audiences is the goal, and getting the information to those individuals who can make a difference or to whom it will have the most impact is key. That may be the Congress, national organizations, and community organizations, all of these are reflected throughout the chapters in this book. Dissemination alone is usually not enough to make change. Linking to systems that are already in place for implementation can be useful. Sometimes a broker may be necessary to bridge with the community, members of the Congress, or regulatory agencies. This is an area where advocacy groups and community leaders may be especially helpful.

CONCLUSION

As nurse investigators and their teams have forged the link from nursing research to health policy, many general issues and "lessons learned" have been experienced. Analyzing the numerous journeys of the scientists has advanced understanding of the context and processes that facilitate and/or constitute barriers to informing health policy with nursing research.

The issues raised and the lessons learned from these early successes simultaneously provide examples and building blocks for advancing nursing science's ability to inform

health policy. The idea that nursing research transforms into policy becomes a reality when examining these scientific endeavors. This transformation foreshadows the natural evolution of the future, which would link nursing research to health policy. The collection of these scientific endeavors and policy experiences confirms that nursing research has an integral position in formulating public health policy.