



Analyzing Stakeholder Perceptions and Social Network Connections Important for the Future of Nursing

Conducting a social network analysis of key stakeholders in implementation of recommendations for the *Initiative on the Future of Nursing*

SUMMARY

On October 5, 2010, the Robert Wood Johnson Foundation (RWJF) and the Institute of Medicine released the report of the *Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine*,¹ a collaborative effort to examine “the capacity of the nursing workforce to meet the demands of a reformed health care and public health system.” The report offered eight key recommendations that called for substantive changes in nursing education, clinical practice, nursing workforce development, policy-making, and leadership. See [Appendix 1](#) for the list of recommendations.

A multidisciplinary strategic advisory committee guides the implementation phase of the *Initiative on the Future of Nursing*. To assist in this phase, RWJF engaged researchers from the Sage Colleges to ascertain stakeholder perceptions as to issues the advisory committee will face and to lead a multilevel analysis of the social network connections and collaborations among members and other key stakeholders. Researchers at Sage interviewed advisory committee members, RWJF staff, and other stakeholders, identified the social networks for each, and analyzed the resulting networks using specialized software.

¹ The *Initiative on the Future of Nursing* evolved from the original effort, to a report with recommendations, and on to a campaign to implement the recommendations. The initiative website describes its status as of 2012 (available [online](#)). For background information about the launch of the initiative, see the RWJF [website](#).

Key Findings

Major themes resulting from the interviews include:

- A “clear, agreed upon” strategic plan is needed that addresses how the recommendations will be implemented.
- The business case for some of the recommendations (especially that 80% of nurses become bachelor’s prepared by 2020) is not being discussed; cost savings must be demonstrated in order for those involved to be willing to work to make such changes.
- Education leaders, especially those representing community colleges, are “critically” needed on the advisory committee.
- Representation from the business community is needed on the advisory committee and the business community must be included in implementation efforts.
- Despite many issues on which physician and nursing organizations can agree, scope of practice² is a major roadblock to progress.

Key findings from the analysis of the advisory committee members’ social networks include:

- Strategic advisory committee members had the most connections with membership and advocacy organizations.
- Members had a broad range of connections within the health care field.
- While advisory committee members had a fair number of connections with universities and colleges (267 different institutions), almost all were with large public universities or top private institutions, with only four connections to community colleges.
- Less than 5 percent of total network connections were with the business sector.

Funding

RWJF supported this project between December 2010 and September 2011 with a grant³ of \$84,370 to Sage Colleges.

CONTEXT

Nurses represent the largest segment of the health care workforce, with more than 3 million members of the profession in the United States. They play a key role in improving health care quality, patient safety, the development of interdisciplinary

² Scope of practice is the actions, procedures, activities, etc. that are permitted by law for a specific profession.

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collaborations, and cost containment; yet, there is a substantial difference between the demand for nursing practitioners and educators and the available supply of these professionals.

The U.S. nursing shortage is expected to grow to 260,000 registered nurses by 2025,⁴ but nursing schools were unable to admit almost 76,000 qualified applicants in 2011, according to the American Association of Colleges of Nursing,⁵ due to insufficient nursing faculty, clinical preceptors, clinical sites, and budget and space limitations.

RWJF's Interest in This Area

Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine

In 2008, RWJF and the Institute of Medicine launched the *Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine*. The initiative was a two-year effort that examined “the capacity of the nursing workforce to meet the demands of a reformed health care and public health system.” Donna E. Shalala, PhD,⁶ former secretary of the U.S. Department of Health and Human Services, chaired the initiative’s governing committee, whose 18 members included nursing leaders, physicians, health care business leaders, consumer organization leaders, hospital executives, and academics.

On October 5, 2010, at the National Press Club in Washington, RWJF and the Institute of Medicine released the report of the initiative, *The Future of Nursing: Leading Change, Advancing Health*. The report offered eight key recommendations that called for substantive changes in nursing education, clinical practice, nursing workforce development, policy-making, and leadership. See [Appendix 1](#) for the list of recommendations.

A 12-member strategic advisory committee led by Sheila Burke, MPA, BSN,⁷ from the John F. Kennedy School of Government at Harvard University guides the implementation phase of the initiative, which is called the *Future of Nursing: Campaign for Action*. The strategic advisory committee includes leaders in health care, education, business, labor, and consumer advocacy. See [Appendix 2](#) for a list of members.

⁴ Buerhaus P, Auerbach D and Staiger D. “The Recent Surge in Nurse Employment: Causes and Implications.” *Health Affairs*, 28(4): w657–w668, 2009. Abstract available [online](#).

⁵ *Nursing Faculty Shortage*. Fact Sheet. American Association of Colleges of Nursing, 2012. Available [online](#).

⁶ Shalala is president of the University of Miami.

⁷ Burke is adjunct lecturer in public policy at the Kennedy School and has served as chief of staff to former Senate Majority Leader Robert Dole of Kansas.

The *Campaign for Action*, working on national, state, and local levels, is developing strategies to implement the recommendations through a network that includes 48 state action coalitions as well as health care providers, consumer advocates, policy-makers, and business, academic, and philanthropic leaders.⁸

Social Network Analysis

Social network analysis measures relationships between individuals and groups by mapping these relationships and assessing their patterns. The resulting map provides a unique picture of how network participants are communicating and behaving. RWJF is interested in how social networks can improve both programming and evaluation activities. Social networks are integral to the Foundation's efforts to generate and share information, and to promote impact.

RWJF staff believed that, in order for the Campaign for Action to bring about the sweeping changes called for in *The Future of Nursing* report, it would have to effectively mobilize diverse stakeholders, some of whom had histories of disagreement on certain issues. A first step in engaging these stakeholders was to identify the relationships among the people and organizations already connected to the advisory committee members and identify those stakeholders who were not connected, but should be.

In addition to the project reported here, RWJF-funded social network analyses of two leadership programs, two initiatives that involved research across disciplines, one advocacy program, one network across a broad field, and one communications program.⁹

THE PROJECT

To assist the implementation of the initiative's recommendations, RWJF engaged researchers Kimberly A. Fredericks, PhD, MPA, RD,¹⁰ and Kathleen Kelly, PhD, MPH, MS, FNP,¹¹ from The Sage Colleges, to lead a multilevel analysis of the social network of members of the strategic advisory committee and other key stakeholders. "It became apparent that there was a need to look at the strategic advisory committee, which was

⁸ For more information on the campaign and the Center to Champion Nursing in America, which is running it, read the [Program Results Progress Report](#).

⁹ Evaluations using social network analysis techniques include: [Ladder to Leadership: Developing the Next Generation of Community Health Leaders](#), the [State Health Leadership Initiative](#), [Healthy Eating Research](#), [Strengthening the Performance and Impact of Public Health Departments](#), [Consumer Voices for Coverage: Strengthening State Advocacy Networks to Expand Health Coverage](#), [Childhood Obesity Prevention Networks](#), and the [Public Health Communications Network](#).

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¹¹ Kelly is assistant professor of nursing, Sage Colleges School of Health Sciences, Albany, N.Y. and translational researcher at St. Peter's Hospital, Albany, N.Y.

appointed following the release of the report, and what sort of networks they have to move the report forward,” explains Kelly.

Fredericks says “Social network analysis can be a tool to help understand not just who is present and who is missing, but also the strategy for making connections and determining the people who need to be reached.”

Fredericks, Kelly, and colleagues collected and analyzed both qualitative and quantitative data. The team:

- Conducted 23 interviews (six in person and 17 by telephone) with 12 committee members, seven RWJF staff, and four additional stakeholders. The interviews were designed to ascertain respondents’ perceptions of the issues the advisory committee will face in implementing the recommendations and to identify committee members’ ties to other individuals and organizations likely to have interest or influence in the area.
- Identified the social networks for each committee member from the information contained in the interview transcripts. They created multiple datasets for different types of analyses that included: individuals, organizational affiliations of the individuals, attributes of the organizations and of the individuals, strength of the association between the individuals and their organizations, and others. The result was 1,799 individual affiliations and 1,752 organizational affiliations within the entire network.

Researchers used specialized statistical software (UCINET) to analyze the social network data. A visualization package embedded within UCINET called NetDraw allowed for graphic representation of the resulting networks.

FINDINGS

Qualitative Findings From the Interviews

Researchers reported the major themes resulting from the interviews in a social network analysis report to RWJF and in an interview. Key themes include:

- **A “clear, agreed upon” strategic plan, some call it a “road map,” is needed that addresses how the recommendations will be implemented.** “The lack of a strategic plan is probably the strongest idea that we heard,” says Kelly.

Associated ideas expressed by interviewees include:

- “We have to create a strategy first. The messages come second. We’ve gotten out of the box too quickly with tactics before we had a strategy in place.”
- Approach the issues from multiple angles in an interdisciplinary manner. “This is not about nursing, it’s not about doctors. Rather, it’s about patients!”

- Proper “framing” of the message could defuse tensions and open lines of communications. For example, according to one interviewee: “‘Practicing to the full extent of licensure/training/education’ is not that controversial. The controversy is ‘independence.’ That’s where you lose physicians.”
- The plan should connect interdisciplinary networks and create ways to “maintain enthusiasm around the issue” in the long term. Influential people on “all sides of the issue” can write about it and raise both professional and public awareness.
- **The business case for implementation of some of the recommendations (especially that 80% of nurses become bachelor’s prepared by 2020) is not being discussed; cost savings must be demonstrated in order for those involved to be willing to work to make such changes.** As Kelly explains, the question is: “Where is the economic argument for how that will improve the quality of care and be worth the financial investment in additional training and education?”

Concerns specifically associated with the “80/20” recommendation include:

- The impact on community and four-year colleges since there is already a recognized shortage of qualified nursing faculty.
 - The impact on the health care system if bachelor’s level nurses are not interested in providing direct bedside care, and therefore, who would fill this role given the already shortage of practicing nurses.
 - **Education leaders at all levels, but especially those representing community colleges, are “critically” needed on the strategic advisory committee.** While historically, many nurses have been prepared at the community college level, *The Future of Nursing* report calls for major streamlining of nursing education from the associate up to the doctoral level. “But,” Fredericks asks, “How can you make significant decisions relating to how to fast track or streamline the initial educational process, if you don’t have people involved in that entry level at the table?”
 - **Representation from the business community, including Fortune 500 companies, is needed on the strategic advisory committee, and the business community must be included in implementation efforts.** Both large and small companies are vitally concerned about productivity and health care cost containment and have a vested interest in the reforms called for by the *Initiative on the Future of Nursing*. A strong economic argument must be made to engage them.
- “If you are trying to make major changes within nursing education and health care in general, you need to have the business community on board,” Kelly explains. “They see things through a different lens than policy-makers, government leaders, politicians and educators.”
- **Despite many issues on which physician and nursing organizations can agree, scope of practice is a major roadblock to progress.**

- Said one interviewee: “Despite the best of intentions, the nature of the report and the subsequent reactions have moved us, not down the road toward affirming the role of nursing as part of the team, but have created some divisiveness.”
- Conclude the researchers: “Clearly common ground and mutual understanding must be achieved before a united implementation effort can be initiated.”
- **Implementation efforts must be “bipartisan.”**
 - It is important to include individuals who represent a variety of views so that ideas for implementation are not limited.
 - The political climate in Washington is of concern and the advisory committee should connect with major bipartisan organizations to promote its agenda.
- **Individual perceptions of the advisory committee’s “charge” vary widely, which suggests some miscommunication about their roles and associated expectations.**

Quantitative Findings From the Social Network Analysis

The researchers reported the findings from the quantitative analysis of the strategic advisory committee members’ social networks. These findings are detailed, cover a wide range of connections, and are shown graphically in the *Social Network Analysis Report* (see the [Bibliography](#)). Key findings with relevance to successful implementation of the initiative’s recommendations include:

- **Members of the strategic advisory committee had the most connections with membership and advocacy organizations.** These 1,093 ties were 19.32 percent of the 5,656 connections in the social network and represented 272 different organizations and initiatives. Among the 10 organizations with the strongest ties to committee members were: the National Quality Forum, National Paid Sick Days Coalition, National Priorities Partnership, and Leadership Conference on Civil and Human Rights.
- **Strategic advisory committee members had a broad range of connections within the health care field.** Some 14.44 percent of the connections were in this sector, representing 341 institutions such as hospitals, health systems, insurers, health care companies (e.g., pharmaceutical companies), and health-related organizations (e.g., hospital associations). Of these, 49 percent were with hospitals and others providing direct care.
- **While advisory committee members had a fair number of connections with universities and colleges (12.92% of all connections, representing 267 different institutions), almost all of these were with large public universities or top private institutions, with only four connections to community colleges.**

- **The advisory committee members had notable connections with:**
 - Federal, state, and local government institutions: 10.62 percent of all connections (74 federal, 65 state, and 7 local)
 - Professional associations: 8.43 percent of all connections (126 different associations)
- **The advisory committee members had fewer connections with the business sector: only 4.63 percent of the total connections in the network, representing 168 different organizations such as corporations, attorneys, and trade associations.**
- **The fewest connections (3.06% or less) were with charities, think tanks, philanthropic organizations, rural health, and the media.**

Limitations

Kelly and Fredericks noted the following limitations to the analysis:

- Complete, standardized, and uniform network data, collected from interviews, are critical in social network analysis. Nonresponse and unequal contributions of some respondents, along with the refusal of some respondents to answer specific questions, presented a limitation to the capture of full network data.
- Lack of an overview presentation to strategic advisory committee members on the methodology and its importance (due to time constraints) may have resulted in some confusion about the data requested and committee members' recall of all relationships.

These limitations may have resulted in the finding that some of the network's ties were sparse and may indicate that a number of the networks may not have been fully captured.

RECOMMENDATIONS

As a result of their analyses, Kelly and Fredericks made the following recommendations:

- Develop a comprehensive and well-coordinated strategic plan to guide implementation.
- Add a representative from the community college arena to the advisory committee.
- Add a business leader to the advisory committee.
- Increase connections with state-level agencies.
- Conduct analyses across select state-level action coalition initiatives to streamline nursing education and improve overall program efficiency and effectiveness.

- Include additional expertise in social change theory and practice, given the magnitude of the proposed changes in nursing education, practice and workforce development.
- Give attention to current and changing health care payment systems for nursing services.

LESSONS LEARNED

1. **Enlist assistance from key stakeholders to encourage busy leaders to schedule interviews for a time-sensitive project.** Researchers found it difficult to schedule interview time with some members of the strategic advisory committee who were not aware of the time-sensitivity of the work. Contact from RWJF staff and others helped to facilitate the scheduling of these interviews. (Project Directors)

AFTERWARD

The project concluded with the end of the grant. As of May 2012 the project directors are preparing two articles for publication: one on the qualitative themes and one on the quantitative social network analysis.

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APPENDIX 1

The Future of Nursing: Leading Change, Advancing Health—Eight Recommendations

1. Remove scope-of-practice barriers.
2. Expand opportunities for nurses to lead and diffuse collaborative improvement efforts.
3. Implement nurse residency programs.
4. Increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020.
5. Double the number of nurses with a doctorate by 2020.
6. Ensure that nurses engage in lifelong learning.
7. Prepare and enable nurses to lead change to advance health.
8. Build an infrastructure for the collection and analysis of interprofessional health care workforce data.

APPENDIX 2

Strategic Advisory Committee Members When Research Was Conducted

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(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)

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