

Nurse Leaders Decision-Making to Adopt an Online Innovation: A Decision Support Tool

Daniel T. Lose, DNP, RN, CNML

Following the release of the 2010 Institute of Medicine's Future of Nursing report, the Campaign for Action tasked each state's action coalition with operationalizing the report's recommendations. This article highlights how nurse leaders elected to focus on nurse residency programs and made decisions about an innovative online nurse residency program in one state. Although nurse leaders reported using a systematic decision-making process, early adopters of the online program reported a higher tendency of going with their gut when making their decision. This case study examines how decisions were initially made by leaders, which led to the development of a decision support tool to facilitate informed decision-making and maximize program adoption.

Nurse leaders are challenged every day to make important decisions that impact both patient care and workforce recruitment, development, and retention. As a general rule, leaders aim to implement valuable programs and interventions that increase quality of care and services while decreasing costs. Although there is an abundance of data and potential solutions for complex problems, time and decision-making capacity are often limited. The purpose of this article is to better understand the decision-making process of nurse leaders involving the implementation of an innovative online nurse residency program.

NURSE RESIDENCY PROGRAMS

Nurse residency programs have the potential to greatly improve the transition from student to professional nurse, attract new nurses, and retain a competent workforce.^{1,2} The Institute of Medicine's *The Future of Nursing: Leading Change, Advancing Health* recommended that health care organizations take action to support nurses' completion of a transition-to-practice (nurse residency) program after they have completed a prelicensure program.³ The Iowa Action Coalition, as part of the Campaign for Action, made it a top priority to ensure all new nurses in the state had the opportunity to participate in a nurse residency program. When the Iowa Action Coalition began its work in 2012, only 7 hospitals in Iowa offered a nurse residency program—only 1 of which was in a rural setting. The Iowa Action

Coalition—through collaboration between nursing executives from large and small hospitals, nurse educators, frontline nurses, and nursing students—created an affordable and innovative online program, the Iowa Online Nurse Residency Program (IONRP). The IONRP's competency-based curriculum was developed using the latest evidence and best practices, and can be delivered through live webinars as well as interactive online modules.^{4,5} Health care organizations can choose the IONRP's online or blended delivery model. The online delivery option is for organizations that do not want to create their own infrastructure for a residency program and is delivered via online modules and monthly synchronous discussions via live webinar with the program's nurse

KEY POINTS

- Innovative solutions to complex problems are being developed by nurses across the country.
- A decision-support tool was created to increase adoption of the innovative online nurse residency program after surveying leaders across the state.
- Understanding who is involved at the decision-making table, how they make decisions, and what factors support and inhibit innovation adoption are important.

residency program manager. The blended delivery option is for organizations want to use the IONRP's online modules but will facilitate their own discussion groups by an organization-based residency coordinator.⁴ Depending on budget and available resources within the organization, nurse leaders can decide which delivery option best meets their needs.

Two years after the IONRP was available to health care organizations, there were still hospitals in Iowa that were not offering nurse residency programs for their new staff. The Iowa Action Coalition's work aimed to provide health care organizations with an affordable and accessible option to help recent graduates transition into their new role as professional nurses. Although some organizations jumped at the opportunity to use the new program, others remained hesitant and failed to implement the Institute of Medicine report's recommendation. The reasons for a leadership decision not to adopt this evidence-based affordable residency program were not clear and needed to be studied.

DECISION-MAKING LITERATURE

Nurse leaders are tasked with making decisions every day related to quality and efficiency.⁶ Some decisions are relatively simple and can be made quickly, whereas others require a great deal of attention and thought. In terms of how decisions are made related to innovation adoption, Rogers⁷ identified that decision makers are influenced by the perceived characteristics of the innovation—relative advantage, compatibility, complexity, trialability, and observability—when deciding whether or not to adopt innovations. In addition, we know that decision makers have limited time and resources when making decisions, and as a result, are often unable to go through a systematic process. Therefore, they call upon their biases and utilize shortcuts (heuristics) or simply go with their gut when making decisions.^{8,9} Lastly, it is estimated that only 2% of managers and executives consistently utilize best practices when making decisions.¹⁰

PROJECT PLAN

The goal of the project was to assess nurse leaders' decision-making process to better understand how leaders viewed the program and whether they saw it as a cost-effective and accessible intervention to support their new nurses' transition to practice. The first step of the project was to conduct an online survey of Iowa Organization of Nurse Leaders regarding their decision-making process to adopt the IONRP. Questions were created based on information gathered from the literature and from the IONRP manager's past experiences interacting with leaders. The next step was to engage nurse leaders in dialogue about their decision-making process related to the program. Nurse leaders were asked targeted questions at an exhibit

booth during the Iowa Hospital Association's annual meeting that were designed to take the survey data a step further and acquire additional information about what leaders need when deciding about the IONRP. Lastly, a decision support tool was developed to facilitate informed decision-making and maximize program adoption.

WHAT WAS LEARNED FROM LEADERS?

The online survey revealed important information about how nurse leaders across the state of Iowa perceived the new IONRP and how they made decisions about adoption (*Table 1*). A total of 139 nurse leaders completed the survey, with 36 (26%) working in critical access hospitals and 64 (46%) working in 100+ bed (large) hospitals. Nurse leaders, regardless of their facility size, reported using a variety of decision-making processes discussed in the literature. Overall, 72% of respondents reported using a systematic decision-making process, 16% reported relying on shortcuts, and 12% use their gut feeling (*Table 1*). However, for nurses who reported using the IONRP in their organization, the percentage of those using a systematic decision-making process shrank to 58%, whereas 26% relied solely on their gut feelings. This highlighted that early adopters of the innovative program took some risk and made a decision that felt right for them.

Cost was the most notable barrier for adopting the IONRP, which has been supported by the literature. The survey results also highlighted that access to financial support/scholarships and return on investment (ROI) calculations were factors that would support adoption of the program. Although there is a cost to enrolling new nurses in the residency program, organizations can see a return on their investment through reduced turnover rates and improved patient outcomes. By providing leaders with ROI calculations that they can share with the other members of their decision-making team, nurse leaders can save time and make informed decisions.

A second barrier to implementation of the IONRP was that nurse leaders reported already having a residency program in place in their organization. This raised the question about whether or not leaders consistently look to innovative programs to disrupt their current practices. Do leaders have the time and resources to see whether new programs exist at a lower cost that can produce similar results? What we learned when speaking with nurse leaders at the annual meeting was that most leaders shared that they were happy with the current nurse residency program they had in place.

A third barrier was leaders reported not having sufficient information to make an informed decision. Because leaders reported using a systematic decision-making process, having access to all necessary information about the IONRP would be imperative.

Table 1. Survey Results

Hospital Size	<25 beds	25–100 Beds	>100 Beds	Total
<i>n</i>	36	39	64	139
% Have an NRP	33%	44%	81%	58%
% Familiar with IONRP	81%	74%	56%	68%
<i>How have you heard about the IONRP?</i>	Professional organization (62%) Word of mouth (28%) Campaign for Action (24%) Newsletter (7%) Website/online (7%)	Professional organization (59%) Word of mouth (23%) Campaign for Action (18%) Website/online (3%) Newsletter (3%)	Professional organization (59%) Campaign for Action (50%) Word of mouth (47%) Website/online (21%) Newsletter (9%)	Professional organization (63%) Word of mouth (36%) Campaign for Action (34%) Website/online (11%) Newsletter (7%)
<i>Decision makers</i>	CNO (97%) Nurse manager (53%) Non-nurse leader (31%) Nursing education director (25%)	CNO (79%) Nurse manager (64%) Nursing education director (33%) Non-nurse leader (10%)	CNO (75%) Nursing education director (38%) Nurse manager (15%) Non-nurse leader (7%)	CNO (82%) Nurse manager (39%) Nursing education director (33%) Non-nurse leader (18%)
<i>Decision-making process</i>	Systematic (69%) Shortcuts (17%) Gut feelings (14%)	Systematic (66%) Shortcuts (18%) Gut feelings (16%)	Systematic (77%) Shortcuts (14%) Gut feelings (9%)	Systematic (72%) Shortcuts (16%) Gut feelings (12%)
<i>Facilitating factors</i>	Financial support (77%) Improve care/finances (63%) ROI calculator (37%) Prepare for RN shortage (34%) More information (34%) IOM recommendation (26%)	Financial support (77%) ROI calculator (56%) Improve care/finances (51%) Prepare for RN shortage (38%) More information (31%) IOM recommendation (18%)	Financial support (58%) Improve care/finances (56%) ROI calculator (55%) Prepare for RN shortage (55%) More information (27%) IOM recommendation (18%)	Financial support (70%) Improve care/finances (57%) ROI calculator (51%) Prepare for RN shortage (45%) More information (31%) IOM recommendation (21%)

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Table 1. (continued)

Hospital Size	<25 beds	25–100 Beds	>100 Beds	Total
<i>Barriers</i>	Cost (71%)	Cost (62%)	Already have program (57%)	Cost (57%)
	Other: resources, few new nurses (40%)	Not enough information (18%)	Cost (43%)	Already have program (30%)
	Not enough information (14%)	Lack of resources (21%)	Not enough information (18%)	Not enough information (17%)
	Already have program (11%)	Culture (10%)	Other: staffing, resources (16%)	Culture (8%)
	Culture (3%)	Already have program (8%)		
<i>How prefer to receive information</i>	E-mail (89%)	E-mail (64%)	E-mail (55%)	E-mail (68%)
	Webinar (46%)	Webinar (56%)	Website/online (44%)	Webinar (48%)
	Meeting/presentation (43%)	Meeting/presentation (51%)	Webinar (42%)	Website/online (44%)
	Website/online (40%)	Website/online (46%)	Flyer/newsletter (36%)	Meeting/presentation (43%)
	Flyer/newsletter (34%)	Flyer/newsletter (33%)	Meeting/presentation (35%)	Flyer/newsletter (35%)
	In-person consult (9%)	In-person consult (13%)	In-person consult (13%)	In-person consult (12%)

CNO, chief nursing officer; IOM, Institute of Medicine; IONRP, Iowa Online Nurse Residency Program; NRP, nurse residency program; ROI, return on investment.

Decision Makers by Hospital Size

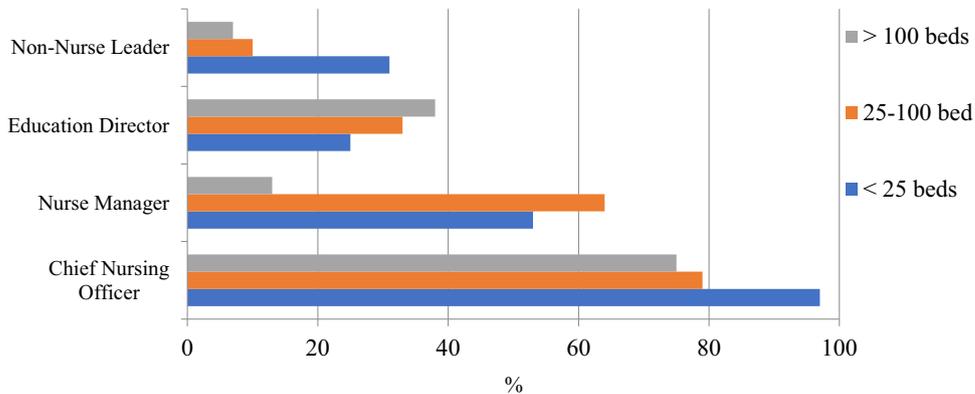


Figure 1. Decision-Makers by Hospital Size.

Providing more targeted information about the program is important to facilitating adoption. These 3 themes were critical in the development of the decision support tool.

The themes from the survey were reinforced and clarified when nurse leaders were engaged in dialogue about their decision-making experience with the IONRP. Leaders already using the IONRP talked about some level of risk taking when trying a new program but that they were confident that the curriculum was evidence-based because it was being operated by the University of Iowa College of Nursing. They were pleased with the program and expressed that they would be happy to share their experiences

with others. On the flip side, some nurse leaders from rural hospitals shared that they had not enrolled any of their new nurses in the program because they had concerns about the program's ability to support new nurses working in the unique critical access hospital setting. After follow-up questions, it was clear that they were not aware that critical access hospital leaders were on the taskforce that created the IONRP.

Another notable takeaway was who was involved in the decision-making process (*Figure 1*). The chief nursing officer was reported as one of the decision-makers 97% of the time in critical access hospitals but only 75% of the time in large hospitals. The role of the nurse managers at the decision-making table was

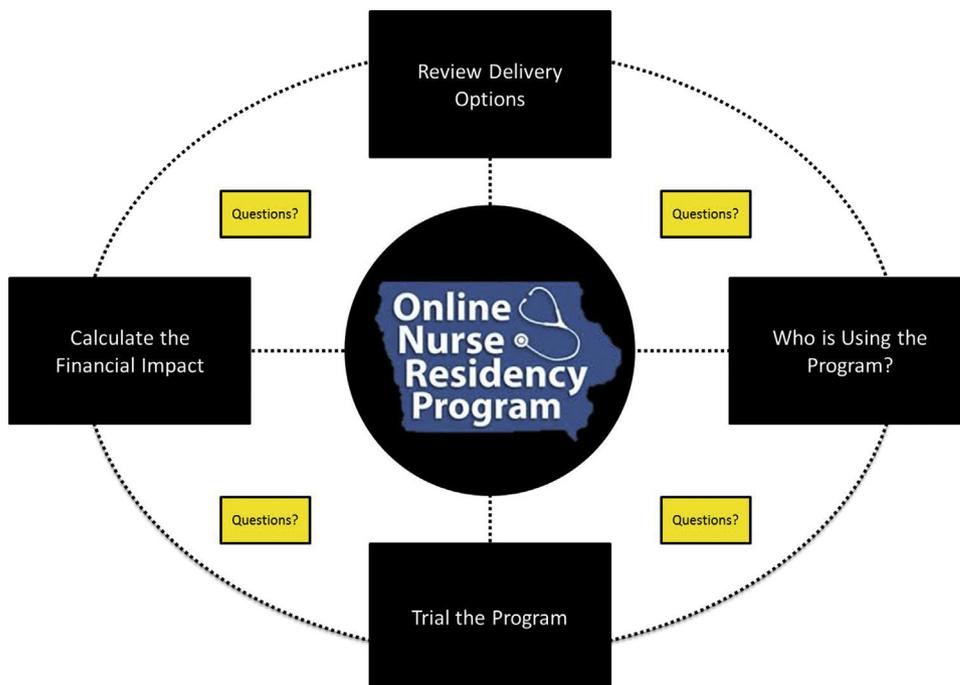


Figure 2. Graphic of Recommended Decision-Support Tool.

also impacted by the size of the organization. Nurse managers were listed as decision-makers by 59% of those surveyed from hospitals with less than 100 beds, compared with only 15% of those from large hospitals. Survey data supported the idea that nurse managers are more concerned with cost as a barrier to adoption than CNOs. Frontline leaders are more likely to be a decision-maker at small hospitals, whereas large hospitals are more likely to have directors and/or CNOs making decisions.

DECISION SUPPORT

A decision support tool was developed based on the themes gathered from the nurse leaders (Figure 2). Leaders shared that they want valuable information in a quick amount of time to help them make an informed decision on the innovative program. The support tool was designed to support leaders who intend to utilize a systematic decision-making process, yet also has the flexibility to provide information in a way that promotes quick decisions. Its simplistic design was intentional to support engagement from leaders ranging from novice nurse managers to senior nurse executives. Clicking each of the boxes directs the prospective customer to targeted information about the program to help them make a quick, informed decision about the IONRP.

As cost was listed as a primary barrier for program adoption, one of the major pillars of the decision support tool is “calculate the financial impact.” This link provides leaders with clear cost information on how to calculate a potential return on their investment. The program offers 2 delivery models; understanding what the IONRP provides and what is required by the home organization are vital for leaders to make informed decisions on which delivery model would best suit their needs.

Ability to trial the program and see which organizations have already implemented it were both key themes from the in-person discussion with leaders but also key findings from Rogers’ research on innovation adoption.⁷ Leaders can interact with the online modules to verify the quality of the program and see what their new nurses will be asked to complete. And being able to see who is using the program so leaders can reach out to them with questions is important. Innovations spread when others can see the positive impact others are experiencing, and it is no different with a cost-effective online residency program.

Despite wanting information online at their fingertips, leaders also shared that they wanted the option to speak with someone about the program and have their questions answered. The decision support tool provides multiple ways to get your questions answered by IONRP staff—a direct link to send an e-mail to the program manager, or their phone number to make a direct call.

Multiple early adopters expressed their willingness to serve as references and provide testimonials on how the IONRP has benefited their organization. Lastly, the decision support tool was created to be cyclical rather than linear, because it was clear that there is not a standard approach to decision-making. The decision support tool provides valuable information for leaders who are interested in offering a nurse residency for the first time or for those leaders who want to see whether the IONRP may be a more affordable or valuable alternative.

The decision-support tool was presented to the IONRP leadership, and concepts within it have been implemented as they best see fit. Specific information and concepts within the decision support tool can be adapted over time to meet the needs of IONRP leaders as the program changes.

LESSONS LEARNED

This project supported the Iowa Action Coalition’s work to implement *The Future of Nursing: Leading Change, Advancing Health* report recommendation #3: Implement nurse residency programs. Although the Iowa Action Coalition succeeded in developing an accessible and cost-effective residency program to support new nurses, nurse leaders’ decision on whether or not to invest in the program remains a barrier. By incorporating lessons learned from this project, the goal was for the IONRP to help nurse leaders’ decision-making ability to increase adoption of the program, and as a result, more nurses will have access to an evidence-based nurse residency program to improve their transition to practice. Key lessons are that nurse leaders utilize different decision-making strategies when deciding whether to adopt the IONRP; the role/position of the decision-makers is different based on hospital size; cost remains a major barrier to adoption; and nurse leaders desire both standardized information regarding the IONRP via e-mail or website and the opportunity to discuss the program with a person via phone, e-mail, or face-to-face.

Although the results from this project cannot be generalized to answer how all nurse leaders make decisions about all innovative programs, it provides a deeper dive into how decisions are made about 1 specific innovative program. As nurses continue to create disruptive innovations and introduce their products or programs to the market to improve patient care and/or support workforce development, nurse leaders’ decision-making style and approach should be considered to facilitate ease of adoption. This decision support tool can provide nurse leaders with valuable and targeted information to help them make informed decisions quickly and increase access to residency programs. Similar decision support tools could be created for other disruptive innovators to ease the decision-making burden on nurse leaders.

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Daniel T. Lose, DNP, RN, CNML, is an inpatient Nurse Manager at The University of Iowa Hospitals & Clinics in Iowa City, Iowa. He can be reached at daniel-lose@uiowa.edu.

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