ENVIRONMENTAL SCAN: STAKEHOLDER PREFERENCES FOR DISSEMINATION

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NHSRU
Nursing Health Services Research Unit
Nursing Health Services Research Unit (NHSRU) Environmental Scan:
Stakeholder Preferences for Dissemination

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OVERVIEW

This environmental scan of the Nursing Health Services Research Unit's (NHSRU) stakeholders will be used to engage users of evidence in the program of research. In order to obtain salient information, seven nursing leaders were interviewed in 2011 and a 15-question online stakeholder survey was conducted. The scan, which is presented in two sections, identifies audience-specific NHSRU research topics and highlights dissemination vehicle preferences. All stakeholders said they would like the NHSRU to host web conferences, and we are planning these for fall 2011. The scan was completed as part of the NHSRU's contract with the Ministry of Health and Long-Term Care (MOHLTC). Results will be incorporated into the NHSRU Knowledge Transfer Strategy and will be evaluated. Section I provides action items, a discussion of hot topics in nursing and the results of the interviews and survey. Section II focuses on decision makers and provides a detailed summary of survey findings. It includes the questions for the environmental scan and the online survey results and template.

SECTION I. WHAT STAKEHOLDERS ARE TELLING US

Action Items

- Survey participants reported they would like the NHSRU to produce more plain language summaries (49%), web conferences and webcasts (48%) and seminars, conferences and symposia (39%).

- Most stakeholders said they would prefer the NHSRU to host web conferences, which allow participants to see and hear the speaker and ask questions with the use of a headset microphone.
  - Forty percent said they would like to have the option of typing in questions that could be viewed and answered by the speaker during the event; (24%) said they would like to e-mail questions after the event. Almost 20% of the respondents said that they would be willing to purchase a headset microphone in order to participate and be able to ask questions by voice.
  - Some other suggestions from stakeholders include the NHSRU working with accrediting bodies (e.g., Canadian College of Health Leaders) to develop webcasts and hold seminars that are recognized for credits.
  - Timely sharing of the results of this environmental scan was recommended. It is suggested that the information be disseminated electronically and via web conferencing.

- Our online survey respondents confirmed our intentions to create an NHSRU Facebook page, Twitter account and blog. The stakeholders who completed the online survey and said they use social media (39%) were asked to rank the tools they use the most. Facebook was ranked first, followed by webcasts and podcasts, LinkedIn, wikis, blogs, Twitter were used less frequently.

- The majority of survey participants are interested in sharing hot topics in nursing with other stakeholders (88%). Their preferred methods of sharing information include web conferences, teleconferences, face-to-face meetings and an NHSRU blog.
• Some respondents suggest the NHSRU increase the profile of its activities amongst nursing students because they felt that students might be unaware of this valuable resource.

• Respondents encouraged the NHSRU to invite survey participants and others to assist in prioritizing future research directions.

**WHY DO AN ENVIRONMENTAL SCAN?**

In 2009, Andrea Baumann and Diane Doran applied for funding under MOHLTC Nursing Research Fund. The MOHLTC is funding this three-year program of research entitled, "Building and Sustaining the Nursing Workforce for Better Patient Outcomes," which began October 1, 2009.

Dr. Baumann (at McMaster University) and Dr. Doran (at the University of Toronto) are the Scientific Directors of the NHSRU program of research, which builds on previous studies by the NHSRU and consists of a core team of researchers at McMaster and the University of Toronto sites. Its overall objective is to provide evidence about nursing health services, including health human resources, and promote knowledge transfer to inform decision making for policy change.

Effective knowledge translation (KT) requires an understanding of the information needs and preferences of target audiences. As part of the contract with the MOHLTC, the NHSRU committed to completing an environmental scan of stakeholders to identify their dissemination vehicle preferences and pinpoint priority areas in the program’s research pillars. The environmental scan hopes to encourage more collaborative relationships and increase the likelihood that research will be consulted in relevant situations.

The NHSRU, as well as other researchers funded by the MOHLTC, aim to understand the information needs and preferences of their target audiences. However, little is published in this area, particularly since the use of social media has risen. Thus, members of the NHSRU sent an online survey to stakeholders and held interviews with high-level senior decision makers.

According to Dobbins and Rosenbaum (2007), executive summaries, abstracts, and original articles are preferred formats for receiving information for decision makers working in community-based organizations. In a cross-sectional telephone survey, four sources of information transfer were consistently identified: websites; health-related research journals; electronic mail; and conferences and workshops. Questions covered current practices, research use and demographic information, as well as preferences for receiving research information. The authors’ findings demonstrate "the importance of developing interactive, collaborative knowledge transfer strategies, as well as the need to foster relationships with health care decision-makers, practitioners and policymakers."

Findings from a study by Dobbins and Jack (2007), conclude that to assist the integration of research evidence into the decision-making process, public health administrators appreciate receiving, in both electronic and hard copy, systematic reviews, executive summaries of research and clear statements of implications for practice from health service researchers. One of the aims of this study was to identify decision makers’ preferences for the transfer and exchange of research knowledge. This article focused on how the participants define evidence-based decision making and their preferences for receiving research evidence to integrate into the decision-making process.
A similar study (Sklar, 2010) assessed the influence of varying dissemination techniques used to communicate evaluation research findings. Representatives from San Diego County mental health treatment programs, the Behavioral Health Services Division of the Health and Human Services Agency and the Health Services Research Center were interviewed. The aim was to assess the influence of the various dissemination techniques used to communicate evaluation research findings." The majority of study participants (40 %) reported the shortened summary report as the most useful document. Another 40% reported the full-length report (20%) and summary pages (20%) as the most useful documents. The remaining 20% reported the full-length summary page (10%) and the actual outcome measures within the reports (10%) as the most useful documents.

As noted previously, in order to obtain salient information on the dissemination preferences of stakeholders, the NHSRU interviewed seven nursing leaders and a conducted a 15-question online stakeholder survey. The results are presented below (see Section II for a more detailed summary).

**NHSRU INTERVIEW RESULTS – RESPONSES OF SENIOR DECISION MAKERS**

The seven senior leaders who agreed to be interviewed were from various settings, including academic health sciences, research, consultancies, university, government, provincial and national nursing organizations and the union for nurses. Interviews were conducted individually via telephone.

All participants indicated they use evidence from the NHSRU and find it very helpful. The most common uses are to form policy agendas (100%), support decisions (87%) and inform membership (87%). The latter includes internal and external audiences. Other uses of evidence include preparing briefing notes (71%) and peer-reviewed research papers (57%) and generating dialogue and debate (71%). One respondent indicated awareness that independent expert assessment panels and arbitrators are utilizing the evidence to support their decisions.

Most decision makers access NHSRU evidence frequently and prefer to receive it electronically. They considered the online notification system and the e-mail alerts focussing on new evidence to be the most valuable tools.

Interviewees ranked the frequency of document usage. The most frequently accessed documents were the Research in Action/Fact Sheets, which were used to become familiar with the evidence. Research reports were frequently accessed when additional detail was required. Interviewees ranked journal abstracts lowest in terms of usage.

The NHSRU is a well-respected resource that delivers trusted results. Benefits of using NHSRU evidence include the support of timely evidence-based policy formulation and decision making at the provincial and organizational level and the provision of evidence-based benchmarks that can be used provincially and organizationally. Interviewees suggest the most significant challenge in receiving NHSRU research evidence is to find the best strategies to widely disseminate the evidence and maximize its use in decision making.

The stakeholders identified evidence from the Nursing Graduate Guarantee (NGG) Initiative as one of the unit's biggest success stories. They indicated the evidence demonstrates why financial support for the NGG should continue. Other successes related to fiscal impact and organizational decisions were cited: skill mix;
support for Internationally Educated Nurses (IENs); the relationship and impact of workload and sick time; and the use of personal digital assistants (PDAs) to support models of care, clinical decision making and informatics. One respondent noted that the research on skill mix has been used extensively across Canada and internationally, and there is an opportunity for greater dissemination of other evidence.

All respondents have electronic access, but none reported a desire for widespread use of social media in their professional role, principally because of time and privacy concerns. All respondents supported the use of web conferences, webcasts and face-to-face research exchanges, seminars, conferences and symposia. Other suggestions were offered regarding approaches, formats and frequency of hosting events. Web conferences and webcasts were highlighted as an effective strategy to enable health care leaders beyond the Greater Toronto Area (GTA) to participate in dialogue and access the latest information while avoiding the time and expenses associated with travel.

Other suggestions included:
- Host a think tank/seminar with chief nursing executives to elicit topics relevant to their role within organizations
- Offer seminars regionally and/or partner with other organizations to disseminate the evidence more broadly
- Use web conferences to broaden audience when forums are held to share new research findings
- Consider using “web blasts” to highlight the results of new research; ask for questions via e-mail and/or have a set call-in time and a dedicated call-in line; record all questions and answers and publish as a webcast
- Host forums for CEOs and other key leaders to share evidence and highlight its relevance to their organization; this could be done via web conference
- Explore use of telehealth to reach northern and rural organizations
- Explore concept of “fireside chats” to reach the broadest audience
- Publish plain language research summaries for use by frontline staff

**NHSRU ONLINE SURVEY RESULTS – STAKEHOLDER RESPONSE**

The online survey was developed and published using LimeSurvey®, an open source online survey application. It is a user-friendly web application that is installed on McMaster University’s server where the data is collected and stored. The NHSRU Stakeholder Survey of Preferences was sent electronically to the e-mail addresses of 998 participants who are members of the existing NHSRU stakeholder database. These stakeholders include representatives from health care agencies (e.g., hospitals, long-term care institutions, community agencies, public health agencies), educational facilities (e.g., universities, colleges), government (e.g., ministries of health, education) and nursing organizations (e.g., College of Nurses of Ontario, Registered Nurses Association of Ontario).

The response rate for survey was (n=357) 36%. The demographics of the survey respondents included representation from a wide distribution of agencies (see Figure 1). Of the respondents, 30% identified themselves as faculty members or educators. Administrative decision makers, including program managers, hospital executives or board members made up 29% of the demographic. Researchers comprised 20% of the demographic.
Figure 1. Demographics of Respondents

Those surveyed were asked how they use the nursing research evidence produced by the NHSRU. Table 1 shows the different types of information produced and usage ranking. Respondents said they used the information produced by the investigators affiliated with NHSRU in order to support decisions. They also said the evidence supplied by the documents is utilized in making health human resource planning decisions (23%), writing peer-reviewed research papers (20%) and generating dialogue and debate (16%). Thirty-six percent of respondents said that they used information produced by the NHSRU frequently.

Table 1. Type of Information Produced by NHSRU and Total Ranking of Products Used

<table>
<thead>
<tr>
<th>Type of Information Produced by NHSRU</th>
<th>Top Products Used (%)</th>
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</thead>
<tbody>
<tr>
<td>Research Evidence Series Reports</td>
<td>61</td>
</tr>
<tr>
<td>Research in Action Summaries, Fact Sheets, Placemats</td>
<td>20</td>
</tr>
<tr>
<td>Journal Abstracts</td>
<td>10</td>
</tr>
<tr>
<td>Online Newsletters</td>
<td>9</td>
</tr>
</tbody>
</table>

Evidence is largely accessed electronically (96%). Half of the respondents accessed information through the NHSRU website (52%). Forty percent of participants received and accessed information through e-mail alerts and 37% accessed information through online newsletters.

The participants who stated they accessed the NHSRU information electronically were asked if they also accessed social media such as blogs, Twitter and Facebook. Of these respondents, 61% said they did not, while 39% said they did.

The respondents who accessed social media were asked to rank the tools they used (see Table 2). Facebook was used most frequently, while Twitter was used least frequently.
Table 2: Ranking of Social Media Tools Most Used

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Social Media Tool Most Accessed</th>
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<tbody>
<tr>
<td>1</td>
<td>Facebook</td>
</tr>
<tr>
<td>2</td>
<td>Webcasts and podcasts</td>
</tr>
<tr>
<td>3</td>
<td>LinkedIn</td>
</tr>
<tr>
<td>4</td>
<td>Wikis</td>
</tr>
<tr>
<td>5</td>
<td>Blogs</td>
</tr>
<tr>
<td>6</td>
<td>Twitter</td>
</tr>
</tbody>
</table>

All participants were asked what additional tools/materials they would like to see produced or hosted that would enhance the dissemination of information. Participants could select more than one answer. The most common responses included the production of plain language text summaries (49%), hosting web conferences and producing webcasts (47%) and hosting seminars, conferences and symposia (38%).

Among participants who selected web conferences and webcasts, most preferred web conferencing (41%), which allows participants to see and hear the speaker and ask questions with the use of a headset microphone. Approximately 16% of the respondents preferred webcasting, in which participants can see and hear the speaker but have no opportunities for interaction.

Of the participants who said they would like to have access to web conferencing, 40% wanted the option of typing in questions that could be viewed and answered by the speaker during the event; 24% said they would like to e-mail questions after the event. Almost 20% of the respondents said they would be willing to purchase a headset microphone in order to participate and be able to ask questions by voice. When asked if participants would be willing to pay a fee for web conferencing, almost 60% said they would not pay a fee.

The majority of participants stated they would be interested in sharing hot topics in nursing with other stakeholders. Hot topics are not a new concept to NHSRU researchers. For the past 20 years, the unit has highlighted important issues that require immediate attention from the nursing community.

As shown in Figure 2, the participants' preferred methods for sharing information included web conferences (30%), teleconferences (22%), face-to-face meetings (22%) and an NHSRU blog (19%).
We invited participants to add general and overall comments about the survey and research completed by the investigators. In their comments, stakeholders acknowledged the excellent work of the NHSRU and conveyed their congratulations. Respondents discussed the importance of the NHSRU reports and many found the research reports to be relevant to their practice and valuable decision-making aids.

Stakeholders also stated that the reports kept them up-to-date with current topics related to the nursing workforce and found the reports to be a good source of evidence-based research. E-mail alerts, advising of new reports, were favoured. However, participants from community and public health settings did not find the reports applicable to their practice and suggested making them more relevant to their work settings (e.g., nurse leaders and advocates).

It was suggested that the NHSRU increase the profile of the research activities among nursing students as the respondents felt students might be unaware of this valuable resource. Some other suggestions from stakeholders included working with accrediting bodies (e.g., CCHL), developing webcasts and holding seminars that are recognized for credits.

**HOT TOPICS IN NURSING**

In addition to the stakeholder interviews, hot topics were explored by scoping the websites of nursing organizations and hospitals (see Appendix A). Shortage of registered nurses is the most frequently mentioned topic.

Many participants (88%) of the online survey said they would be interested in sharing hot topics with other stakeholders. Their preferred methods for information exchange included web conferences, teleconferences, face-to-face meetings and a blog.

Stakeholders who were interviewed were asked, "What are the biggest health care priorities and trends?" The following themes emerged and are suggested for further research and knowledge transfer:

- Nursing practice, including models of care, skill mix, nurse to patient ratios and their relationship to patient and nurse outcomes
The possible and real impact of the current and future economic environment on the nursing workforce, care models and patient outcomes and anticipatory research on issues that might impact patient- and nurse-related outcomes (e.g., greater use of unregulated workers, lack of integration within the health care system)

Workforce stability, integration and continuing health human resource issues

Nurse-sensitive outcome indicators to measure patient safety and quality; this could include determining the most meaningful measures, methodology for measurement and widespread use and logistics for dissemination of results

Nurse leadership preparation and capacity building, including successful evidence-based approaches and measurable competencies

Other comments included the following:

"There is a need for the development of a nurse-sensitive report card, and the investigators could lead the development."

"Sustaining some of the very important research initiatives of the NHSRU longitudinally is important as the issues that drive health care are cyclical, and we need ongoing monitoring and current evidence."

"Succession planning among the research leader community is important so the valuable research continues."

"Much of the work of the NHSRU has applicability to the broader public sector, so sharing the evidence more broadly is encouraged."

CONCLUSION

This environmental scan of NHSRU stakeholders will be used to engage users of evidence in the program of research. In order to obtain salient information, seven nursing leaders were interviewed in 2011 and a 15-question online stakeholder survey was conducted. Results will be incorporated into the NHSRU Knowledge Transfer Strategy and will be evaluated.

All stakeholders said they would like the NHSRU to host web conferences, and we are planning these for fall 2011. All participants indicated they use evidence from the NHSRU and find it very helpful. The most common uses are to form policy agendas, support decisions and inform membership. The latter includes internal and external audiences. Other uses of evidence include preparing briefing notes and peer-reviewed research papers and generating dialogue and debate. One respondent indicated awareness that independent expert assessment panels and arbitrators are utilizing the evidence to support their decisions.

The NHSRU is a well-respected resource that delivers trusted results. Most of the senior nurse leaders interviewed access NHSRU evidence frequently and prefer to receive it electronically. They considered the online notification system and the e-mail alerts focussing on new evidence to be the most valuable tools for informing the broadest audience.

Benefits of using NHSRU evidence include the support of timely evidence-based policy formulation and decision making at the provincial and organizational level and the provision of evidence-based benchmarks that can be used provincially and organizationally. Interviewees suggest the most significant challenge in receiving NHSRU research evidence is to find the best strategies to widely disseminate the evidence and maximize its use.
Survey participants use NHSRU research evidence to make health human resource planning decisions, write peer-reviewed research papers and generate dialogue and debate. Research findings are largely accessed electronically. Half of the respondents obtained information from the NHSRU website. Other methods of information retrieval included e-mail alerts and online newsletters.

Survey participants who accessed NHSRU information electronically were asked if they used social media such as blogs, Twitter, Facebook. Those who accessed social media used Facebook most frequently, followed by webcasts and podcasts. LinkedIn, wikis, blogs and Twitter were used less frequently.

Both the survey participants and those interviewed stated their preferred method of sharing hot topics included web conferences, teleconferences, face-to-face meetings and an NHSRU blog.
REFERENCES


## APPENDIX A. RESULTS OF HOT TOPICS WEBSITE SCAN FROM SELECTED STAKEHOLDERS

<table>
<thead>
<tr>
<th>Organization</th>
<th>Hot Topic</th>
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<tbody>
<tr>
<td><strong>Government Agencies</strong></td>
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</table>
| Health Canada – Office of Nursing Policy           | • Enhancing nursing capacity:  
• Planning human health resources to ensure that the most appropriate patient care is being delivered (Office of Nursing Policy, 2009)  
• Quality of workplace settings:  
• Promoting job satisfaction and decreasing burnout, stimulating innovative care-delivery models, developing a national inter-professional education strategy (Office of Nursing Policy, 2009) |
| Ministry Of Health and Long-Term Care Ontario     | • New Roles in Nursing:  
• Exploring roles that may be feasible to include in the scope of practice of an RN Some of these roles include: RN Surgical Assist, performing flexible sigmoidoscopy, nurse practitioners with speciality in anaesthesia (Office of Provincial Chief Nursing Officer 2010) |
| HealthForceOntario website                        | • Designed to help RNs access Nurse Practitioner education and become registered as an NP (Ministry of Health and Long-Term Care Ontario, 2008)                                                             |
| **Nursing Organizations**                         |                                                                                                                                                                                                          |
| Canadian Nurses’ Association (CNA)                | • Staffing Levels:  
Appropriate levels of Registered Nurses lead to better patient outcomes (CNA, 2011c)  
• Staffing Decisions and Patient Safety (CNA, 2011c)  
• Staffing Decisions and System Costs (CNA, 2011c)  
• Community and Public Health:  
• Bringing necessary resources to support Canadians in their communities; and  
• strengthening health policy and funding toward community-based care, health promotion and prevention and management of non-communicable diseases (CNA, 2011b)  
• Harm Reduction:  
• Ethical issues that are affecting policy, practices and standards of the delivery of health care to populations that are using illicit drugs (CNA, 2011a)  
• Pharmaceutical Access:  
• Ensuring that Canadians have access to safe, affordable and effective prescriptions (CNA, n.d.) |
| Ontario Nurses’ Association (ONA)                 | • Understaffed Nurses:  
Mayo Clinic study shows that patients risk of death increased by 2% for every hospital shift where registered nurses were understaffed Ontario Nurses’ Association (ONA, 2011a)  
• Lack of home care funding and access: Issues surrounding private, for-profit organizations and adequate home care for |
ageing population. Possible use of Nurse Practitioners in this setting (Ontario Nurses’ Association, 2011a)

- Culture of Safety:
  Nurses are not speaking up about unsafe practices they witness from other health care professionals (Ontario Nurses’ Association, 2011a)

- Nursing Fatigue:
  Nursing shortages and increased patient workload leads to decreased patient safety (Ontario Nurses’ Association, 2010b)

- Mandated nurse-patient ratios:
  A study done in California showed that mandated nurse to patient ratios increased patient safety as well as job satisfaction (Ontario Nurses’ Association, 2010b)

- Lack of in-patient beds leads to patients being held in hallways. Concerns about infection control, privacy, lack of staff (Ontario Nurses’ Association, 2010a)

- Pay Rates in the United States:
  Data shows that a recent increase in wages for US RN’s are attracting Canadian-educated nurses (Ontario Nurses’ Association, 2011a)

- Internationally Trained caregivers: Numbers have increased by 400% over the last decade. Nursing homes, retirement homes, home care agencies target these workers most often (Ontario Nurses’ Association, 2011b)

- Wait times for nursing home beds: Have gone up in the past 5 years

<table>
<thead>
<tr>
<th>Registered Nurses Association of Ontario (RNAO)</th>
<th>Patient-Centred Model of Care:</th>
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<tbody>
<tr>
<td></td>
<td>RN’s and RPN’s are not being used where scope of practice is most effectively utilized (RNAO, 2009)</td>
</tr>
<tr>
<td></td>
<td>Nursing shortage:</td>
</tr>
<tr>
<td></td>
<td>Numbers are still not as high as they should be. Nursing shortage has negative impact on patient outcomes (RNAO, 2009)</td>
</tr>
<tr>
<td></td>
<td>Strengthening Medicare:</td>
</tr>
<tr>
<td></td>
<td>Needs to focus on community care, using health care professionals in their full scope of practice and using evidence-informed practices (RNAO, 2010b)</td>
</tr>
<tr>
<td></td>
<td>Nursing Fatigue:</td>
</tr>
<tr>
<td></td>
<td>Nurses are reporting fatigue on the job due to large workloads and acuity of patients (RNAO, 2010a)</td>
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<tr>
<td></td>
<td>Regulation of Nursing Homes:</td>
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<td></td>
<td>Concerns of implications of having a two-tier health care system (RNAO, 2010a)</td>
</tr>
<tr>
<td></td>
<td>Harm Reduction at Insite, British Columbia:</td>
</tr>
<tr>
<td></td>
<td>Nurses defend to keep Vancouver’s Insite facility accessible (RNAO, 2011)</td>
</tr>
</tbody>
</table>

| Registered Practical Nurses Association of Ontario (RPNAO) | Research on RPNs: Limited research on RPN retention and recruitment (RPNAO, n.d.) |

| Aboriginal Nurses Association of Canada | Retention of Aboriginal Nurses: The lack of bridging programs and spots available for Aboriginal students in nursing programs contributes to a low number of Aboriginal nurses in the health care system (Aboriginal Nurses Association of Canada, 2007) |
SECTION II: SUMMARY OF SURVEY FINDINGS FROM SENIOR DECISION MAKERS

NURSING HEALTH SERVICES RESEARCH UNIT

ENVIRONMENTAL SCAN:

SUMMARY OF SURVEY FINDINGS FROM SENIOR DECISION MAKERS

Patricia Norman, RN, MEd
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EXECUTIVE SUMMARY

All invited decision makers participated in the survey. All indicated they use evidence from the Nursing Health Services Research Unit (NHSRU) and find it very helpful. The most common uses are to form policy agendas, support decisions and inform membership. Most decision makers access the evidence frequently and prefer to receive it electronically. The Alerts and online notification system were considered the most valuable tools for informing the broadest audience.

Decision makers who need evidence include chief nursing executives (CNEs) and leaders responsible for patient care, senior government officials (elected and civil servants) responsible for policy development, the Provincial Chief Nursing Officer (PCNO) and leaders of professional and union organizations. It is suggested that translating evidence into user-friendly understandable information could enable greater use by other audiences such as the public and the media.

The NHSRU is a well-respected resource that delivers trusted results. Benefits of using NHSRU evidence include the support of timely evidence-based policy formulation and decision making at the provincial and organizational level and the provision of evidence-based benchmarks that can be used provincially and organizationally. The most significant challenge is to find the best strategies to widely disseminate the evidence and maximize its use in decision making.

All decision makers identified the research completed by the NHSRU pertaining to the outcomes of the Nursing Graduate Guarantee (NGG) Initiative was a success. They indicated that the evidence demonstrated why financial support for the NGG should continue. This, in turn, contributed to ongoing provincial funding and continued organizational participation. Other successes related to fiscal impact and organizational decision were cited: skill mix; support for internationally educated nurses (IENs); the relationship and impact of workload and sick time; and the use of personal digital assistants (PDAs) to support models of care, clinical decision making and informatics. One respondent noted that the research on skill mix has been used extensively across Canada and internationally, and there is an opportunity for greater dissemination of other evidence.

Respondents did not indicate a preference for any specific tool used by the research unit (RU) to disseminate evidence. All respondents have electronic access, but none reported a desire for widespread
use of social media in their professional role. However, all respondents did indicate that the RU should host and/or produce web conferences, webcasts and regularly scheduled face-to-face research exchanges, seminars, conferences and symposia. Other suggestions were offered regarding approaches, formats and frequency of hosting events. Web conferences and webcasts were highlighted as an effective strategy to enable health care leaders beyond the Greater Toronto Area (GTA) to participate in dialogue and access the latest information while avoiding the time and expenses associated with travel.

All respondents preferred web conferences to webcasts because they facilitate the greatest audience interaction. Some indicated a preference for e-mailing questions in advance of a web conference so the responses could be included. All were willing to purchase a reasonably priced headset to enable participation, and most were willing to pay for web conferencing but indicated the cost must be affordable.

Respondents identified the following needs for ongoing and future research and knowledge transfer by the NHSRU:

- Nursing practice, including models of care, skill mix, nurse to patient ratios and their relationship to patient and nurse outcomes
- Effective dissemination strategies so that the evidence becomes embedded in practice
- The possible and real impact of the current and future economic environment on nursing workforce, care models and patient outcomes; it was suggested that earlier work done by the RU should be refreshed and expanded
- Anticipatory research on issues that might impact patient- and nurse-related outcomes (e.g., greater use of unregulated workers, lack of integration within the health care system)
- Workforce stability and continuing health human resource shortages
- Nurse-sensitive outcome indicators to measure patient safety and quality; this could include determining the most meaningful measures, methodology for measurement and widespread use and logistics for dissemination of results
- Nurse leadership preparation and capacity building, including successful evidence-based approaches and measurable competencies
Timely sharing of the results of this environmental scan is recommended. It is suggested that the information be disseminated electronically and via web conferencing. In addition, the NHSRU is encouraged to invite survey participants and others to assist in prioritizing future research directions.

**SUMMARY OF SURVEY FINDINGS**

**Survey Participants**

All those invited agreed to participate in a personal telephone interview. One invitee was unable to participate at the last moment and provided an alternate senior leader from the same organization. Participants were decision makers from various settings, including academic health sciences, research, consultancies, university, government, provincial and national nursing organizations and the union for nurses. Their diverse perspectives reflect those of senior nursing leaders and CNEs, graduate students, union personnel and organizations in rural and northern Ontario.

**Principle Uses of Evidence**

One-hundred percent of participants indicated they use evidence from the NHSRU and find it very helpful. The most common uses are to form policy agendas (100%), support decisions (87%) and inform membership (87%). The latter includes internal and external audiences. Other less frequent uses of evidence include preparing briefing notes (71%) and peer-reviewed research papers (57%) and generating dialogue and debate (71%). One respondent indicated awareness that independent expert assessment panels and arbitrators are utilizing the evidence to support their decisions.

**Frequency of Access**

Most respondents indicated they access information frequently (at least monthly); however, frequency depended on the topic. At times when the evidence is pertinent to current activities, access might become more frequent (at least weekly).

**Best Way to Receive Evidence**

All respondents indicated that they preferred receiving information electronically. Several identified the electronic Alerts and the online notification system as the most valuable tools to inform the broadest audience of recent releases. Three respondents identified the discussion sessions held at the university
following the release of new evidence as a valuable tool to support knowledge transfer. However, because of limited attendance, they noted that these sessions did not contribute to the broad dissemination of results.

Due to the volume of electronic information they receive daily, all respondents found it a challenge to read the Alerts and review the evidence. The old RU website was identified as a challenge and not user-friendly. In contrast, the new website was described as more user-friendly, especially when trying to locate the most recent releases and evidence. One respondent indicated that she placed priority on reading the Alerts because she “values the RU evidence highly.”

Decision Makers Who Need to Receive the Evidence

There was consensus among the respondents that the following personnel should regularly receive evidence from the NHSRU:

- CNEs and leaders responsible for patient care in all health care organizations
- Senior government leaders (both elected and civil servants), including the Minister of Health, Deputy Minister and Assistant Deputy Minister
- Senior government officials responsible for policy development
- Provincial Chief Nursing Officer
- Professional and union organizations

In addition, CEOs in health care organizations, leaders in other branches of government and public sector organizations should be considered as possible recipients, depending on the topic. It is suggested that translating the evidence into user-friendly understandable information will enable greater use by senior government officials, policy makers, politicians, consumers and frontline staff.

Benefits and Challenges of Utilizing the Evidence

Benefits

- Supports timely evidence-based policy formulation and decision making at the provincial and organizational levels (e.g., NGG and skill mix)
- Provides evidence-based benchmarks that can be used provincially and organizationally (e.g., nursing workload and skill mix)
• Disseminates trusted and well-respected results based on scientific methodology and adhering to rigorous standards

All respondents identified that the research completed by the NHSRU pertaining to the outcomes of the NGG was a success. They indicated that the evidence demonstrated why financial support for the NGG should continue. This, in turn, contributed to ongoing provincial funding and continued organizational participation. Other successes related to fiscal impact and organizational decision making were cited: skill mix; support for IENs; the relationship and impact of workload and sick time; and the use of PDAs to support models of care, clinical decision making and informatics. One respondent noted that the research on skill mix has been used extensively across Canada and internationally, and there is an opportunity for greater dissemination of other evidence.

Challenges

• Finding the most effective strategies to maximize awareness of evidence and increase its use in decision making
• Disseminating evidence in a timely fashion and in user-friendly formats
• Determining strategies that will encourage leaders to embrace an evidence-based approach across all sectors and in all health care organizations when considering nursing practice and model of care changes
• Lack of robust nurse-sensitive patient outcome measures provincially

NHSRU Products Used

The rankings revealed the following:
• Research Reports: Ranked 1 or 2 by 57% of participants; accessed frequently if more detail was required than Action Summary and/or Fact Sheets
• Research in Action Summary/Fact Sheets: Ranked 1 or 2 by 67% of respondents; used to become familiar with the evidence
• Journal Abstracts: Ranked 3 by 83% of respondents
• Online Newsletter: Ranked 1 or 2 by 67% of respondents; not all respondents were aware of this product
Electronic Access and Use of Social Media

All respondents have electronic access and participate in work-related web conferences and webcasts. However, none reported a desire to use social media (e.g., Twitter, Facebook), principally because of time and privacy concerns. Several indicated that their organizations use other social media tools; thus, they did not need to embrace this technology personally.

Future Media Tools and Opportunities for the NHSRU

All respondents indicated that the NHSRU should host and/or produce the following:

- Web conferences/webcasts
- Regularly scheduled face-to-face research exchanges, including offering sessions at sites other than the GTA and perhaps in collaboration with other research conferences
- Seminars, conferences and symposia both regionally and at sites other than the GTA

There were mixed opinions on the value of producing plain language research summaries of key findings. Several respondents were concerned as to whether adequate information could be provided to determine usefulness. Others thought it might be beneficial for those who only want a short synopsis. If additional information is required, it could be accessed via a link to the detailed report.

None of the respondents recommended Twitter updates or blogs as a useful tool. Other suggestions included the following:

- Host a think tank/seminar with CNEs to elicit topics relevant to their role within organizations; this might also assist the RU to define future research endeavours
- Offer seminars regionally and/or partner with other organizations to disseminate the evidence more broadly
- Use webcasts to broaden audience when forums are held to share new research findings (such as those held at the University of Toronto)
- Consider using "web blasts" to highlight the results of new research; ask for questions via e-mail and/or have a set call-in time and a dedicated call-in line; record all questions and answers and publish as a webcast
- Host forums for CEOs and other key leaders to share evidence and highlight its relevance to their organization; this could be done via web conference
• Explore use of telehealth to reach northern and rural organizations
• Explore concept of “fireside chats” to reach the broadest audience; this approach is used by Nancy Edwards in Ottawa
• Publish plain language research summaries for use by frontline staff.

Web Conferences and Webcasts

All respondents preferred web conferences to webcasts because they facilitate the greatest audience interaction. Webcasts were also considered a reasonable option depending on the topic. Some respondents prefer to e-mail questions in advance of a web conference so the responses can be included. All were willing to purchase a reasonably priced headset to enable participation, and most were willing to pay for web conferencing but indicated the cost must be affordable. It is suggested that presentations and their corresponding question and answer sheets be posted on the website for access on demand.

Current and Future Research and Knowledge Transfer Opportunities and Needs

The following themes related to health care priorities and trends emerged and are suggested for further research and knowledge transfer:

• Nursing practice, including models of care, skill mix, nurse to patient ratios and their relationship to patient and nurse outcomes
• Effective dissemination strategies so that the evidence becomes embedded in practice
• The possible and real impact of the current and future economic environment on nursing workforce, care models and patient outcomes; it was suggested that earlier work done by the RU should be refreshed and expanded
• Anticipatory research on issues that might impact patient- and nurse-related outcomes (e.g., greater use of unregulated workers, lack of integration within the health care system)
• Workforce stability and continuing health human resource shortages
• Nurse-sensitive outcome indicators to measure patient safety and quality; this could include determining the most meaningful measures, methodology for measurement and widespread use and logistics for dissemination of results
• Nurse leadership preparation and capacity building, including successful evidence-based approaches and measurable competencies
Other Comments

- "There is a need for the development of a nurse-sensitive report card, and the NHSRU could lead the development."
- "Sustaining some of the very important research initiatives of the RU longitudinally is important as the issues that drive health care are cyclical, and we need ongoing monitoring and current evidence."
- "Succession planning among the research leader community will be important so the valuable research continues and is not lost as new researchers with different interests emerge."
- "Some of the topics researched by the RU need to continue to be looked at."
- "Much of the work of the RU has applicability to the broader public sector, so sharing the evidence more broadly is encouraged."

CONCLUSIONS

All participants indicated they use evidence from the NHSRU and find it very helpful. The evidence is used in multiple ways, in particular to form policy agendas, support decisions and inform membership at both the organizational and provincial level. Participants agreed that the research completed by the unit pertaining to the outcomes of the NGG was a success. Many opportunities for further research and knowledge transfer were identified. Timely sharing of the results of this environmental scan is recommended. It is suggested that the results be shared electronically and through web conferencing. In addition, the NHSRU is encouraged to invite survey participants and others to assist in prioritizing future research directions.
APPENDIX A. SENIOR DECISION MAKER QUESTIONS FOR THE NHSRU ENVIRONMENTAL SCAN

Preamble
The Nursing Health Services Research Unit (NHSRU) is conducting an environmental scan of stakeholders to identify their research needs and preferences for receiving NHSRU research evidence. The environmental scan consists of three parts: a survey of NHSRU stakeholders, six key interviews with senior stakeholders and development of an inventory of priority issues surrounding the building and sustaining of the nursing workforce for better patient outcomes.

About the NHSRU
The purpose of the NHSRU program of research is to formulate evidence about how to best build and sustain the nursing workforce for better patient outcomes. This multi-site program will also assist the Ministry of Health and Long-Term Care (MOHLTC) by supporting collaboration between researchers and decision makers and ensuring accurate and timely data are available to inform evidence-based decision making.

The focus of the program is nursing health human resources, specifically the identification and analysis of priority issues in this field and the creation and operation of interventions relevant to these issues. Research activities are developed around three interrelated pillars: Nursing Workforce, Nursing Environment and Nursing Practice. An understanding of these pillars, along with the social factors that influence nursing supply and workforce deployment, are instrumental in building and sustaining a quality nursing workforce.

Pillar One: The Nursing Workforce
There is strong need for a stable nursing workforce, and only though research evidence can we determine how to best utilize available resources. To build the nursing workforce and to plan for the right nursing mix that best contributes to better patient outcomes, NHSRU investigators work closely with the MOHLTC to determine where further investment in nursing research will generate the greatest returns.
Pillar Two: The Nursing Environment

It is imperative that workplaces in Ontario are designed to ensure optimal delivery of quality care. The NHSRU research program has been developed with this in mind. It includes studies that focus on quality work environments and strategies for attracting and retaining nurses, rewarding evidence-based practice and supporting nurses' competence and ability to relate to patients, fellow nurses and colleagues.

Pillar Three: Nursing Practice

In practice, nurses need to be able to access information at times when decision making is crucial. The NHSRU recognizes that nursing requires a commitment to lifelong learning to ensure continued competency and evidence-informed patient care. The current research program assists the MOHLTC in providing access to more effective and rewarding opportunities for workplace learning, via knowledge translation interventions and the efficient use of information technologies.

Questions

1. Please state your position/role

How do you use NHSRU nursing research evidence?

Prompt:

- To form policy agenda
- To support decisions (e.g. HHR staffing)
- Briefing notes, to inform committees and departments
- To generate dialogue and debate
- To inform your membership
- For peer reviewed research papers
- Other

Would you like to make a comment about your choice?

2. How frequently do you access information from NHSRU researchers?

Prompt:

- Very frequently
- Frequently
- Infrequently
- Not Applicable

3. A) What is the best way for you to get NHSRU research evidence?

B) What are the challenges in getting NHSRU research evidence?
4. Who are the decision makers that need to have NHSRU evidence? What is the best way to get information to them in a timely manner?

Prompt: Please name two specific decision makers

5. Can you tell us a benefit and challenge of using NHSRU nursing research evidence?

6. Can you tell me how you think NHSRU research evidence has affected the policy process (e.g., agenda setting, policy options formulation, decision making, program design and implementation, evaluation) and how?

Prompt: Could you provide me with a specific example of an NHSRU success story?

7. Please rank accordingly from 1-4, the NHSRU products you are most likely to use

Prompt:
- Journal Abstracts
- Online Newsletter
- Research in Action Summary/Fact Sheets
- Research Reports

8. Do you access electronic information?

9. Do you use social media?

10. If answer is yes to above, what social media tools do you access the most?

Prompt:
- Blogs
- Facebook
- LinkedIn
- Twitter
- Web conference, webcast, podcast
- Wikis

11. What would you like to see the NHSRU host/produce?

- Blogs
- Plain language research summary of key findings in 5 bullet points or less
- Regularly scheduled face-to-face exchanges on research
- Seminars, conferences, symposia
- Twitter updates
- Web conference, webcast
12. **If you chose web conference/webcast, which do you prefer?**

Prompt:

- Web conferencing (I can see and hear the speaker and ask questions back using a headset microphone)
- Webcasting (I can see and hear the speaker but have no opportunity to ask questions or interact)

13. **If you chose web conferencing above, would you be willing to**

- Purchase a headset microphone to ask questions by voice without causing feedback or echo
- Type in questions to be viewed and answered by the speaker during the event
- E-mail questions after the event

14. **Would you pay a fee for web conferencing?**

15. **What are the biggest health care priorities and trends?**

Prompt: Your answer may help us tailor our Knowledge Transfer messages and prepare for future granting opportunities

Prompt: Would you like to share this with our other stakeholders? If yes, what do you think is the best way to do this?

- Face-to-face
- NHSRU blog
- Teleconferences
- Web conferences
- Wikis

16. **Are there any other comments you would like to make about your research needs and knowledge transfer preferences?**
APPENDIX B. ONLINE LIMESURVEY RESULTS

Field summary for Demographics

Please tell us a little bit about yourself. Are you a...

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer (a)</td>
<td>49</td>
<td>13.73%</td>
</tr>
<tr>
<td>Legislative decision maker (politicians, bureaucrats, interest groups) (b)</td>
<td>13</td>
<td>3.64%</td>
</tr>
<tr>
<td>Administrative decision maker (program manager, hospital exec, regional admin, board member) (c)</td>
<td>103</td>
<td>28.85%</td>
</tr>
<tr>
<td>Policy analyst (d)</td>
<td>33</td>
<td>9.24%</td>
</tr>
<tr>
<td>Clinical decision maker (practitioners, specialty &amp; professional society officials) (e)</td>
<td>26</td>
<td>7.28%</td>
</tr>
<tr>
<td>Industrial (pharmaceutical company, software device, manufacturer) (f)</td>
<td>1</td>
<td>0.28%</td>
</tr>
<tr>
<td>Researcher (g)</td>
<td>73</td>
<td>20.45%</td>
</tr>
<tr>
<td>Faculty/Educator (h)</td>
<td>108</td>
<td>30.25%</td>
</tr>
<tr>
<td>Student (i)</td>
<td>11</td>
<td>3.08%</td>
</tr>
<tr>
<td>Other</td>
<td>40</td>
<td>11.20%</td>
</tr>
</tbody>
</table>

Note: ‘Other’ responses include: Consultant, registered and advanced practical nurse, staff at regulatory body, communications professional, manager (government, patient care), administrative assistant, advisor, associate dean, admissions coordinator, economist, union representative, international organization associate, research staff, medical editor.
1. The focus of the NHSRU is to generate evidence through research. How do you use NHSRU nursing research evidence?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>To form policy agenda (a)</td>
<td>27</td>
<td>10.34%</td>
</tr>
<tr>
<td>To support decisions (e.g. HHR staffing) (b)</td>
<td>58</td>
<td>22.22%</td>
</tr>
<tr>
<td>Briefing notes, to inform committees &amp; depts. (c)</td>
<td>18</td>
<td>6.90%</td>
</tr>
<tr>
<td>To generate dialogue and debate (d)</td>
<td>40</td>
<td>15.33%</td>
</tr>
<tr>
<td>To inform your membership (e)</td>
<td>15</td>
<td>5.75%</td>
</tr>
<tr>
<td>For peer reviewed research papers (f)</td>
<td>54</td>
<td>20.69%</td>
</tr>
<tr>
<td>Other (g)</td>
<td>29</td>
<td>11.11%</td>
</tr>
<tr>
<td>No answer</td>
<td>20</td>
<td>7.66%</td>
</tr>
</tbody>
</table>

![Pie chart showing the distribution of responses.]

- To form policy agenda (27)
- To support decisions (e.g. HHR staffing) (58)
- Briefing notes, to inform committees & depts. (18)
- To generate dialogue and debate (40)
- To inform your membership (15)
- For peer reviewed research papers (54)
- Other (29)
- No answer (20)
2. How frequently do you access information from NHSRU researchers?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very frequently (a)</td>
<td>15</td>
<td>5.75%</td>
</tr>
<tr>
<td>Frequently (b)</td>
<td>94</td>
<td>36.02%</td>
</tr>
<tr>
<td>Infrequently (c)</td>
<td>124</td>
<td>47.51%</td>
</tr>
<tr>
<td>Not Applicable (d)</td>
<td>6</td>
<td>2.30%</td>
</tr>
<tr>
<td>No answer</td>
<td>22</td>
<td>8.43%</td>
</tr>
</tbody>
</table>
3. Please rank accordingly, from 1-4, the NHSRU products you are most likely to use. [Ranking 1]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research evidence (reports) (a)</td>
<td>153</td>
<td>61.20%</td>
</tr>
<tr>
<td>Research in Action Summary, Fact Sheets, Placemats (b)</td>
<td>49</td>
<td>19.60%</td>
</tr>
<tr>
<td>Journal abstracts (c)</td>
<td>25</td>
<td>10.00%</td>
</tr>
<tr>
<td>Online newsletters (d)</td>
<td>23</td>
<td>9.20%</td>
</tr>
</tbody>
</table>
4. Please rank accordingly, from 1-4, the NHSRU products you are most likely to use. [Ranking 2]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research evidence (reports) (a)</td>
<td>40</td>
<td>16.46%</td>
</tr>
<tr>
<td>Research in Action Summary, Fact Sheets, Placemats (b)</td>
<td>99</td>
<td>40.74%</td>
</tr>
<tr>
<td>Journal abstracts (c)</td>
<td>70</td>
<td>28.81%</td>
</tr>
<tr>
<td>Online newsletters (d)</td>
<td>34</td>
<td>13.99%</td>
</tr>
</tbody>
</table>
4. Please rank accordingly, from 1-4, the NHSRU products you are most likely to use.[Ranking 3]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research evidence (reports) (a)</td>
<td>25</td>
<td>10.46%</td>
</tr>
<tr>
<td>Research in Action Summary, Fact Sheets, Placemats (b)</td>
<td>58</td>
<td>24.27%</td>
</tr>
<tr>
<td>Journal abstracts (c)</td>
<td>82</td>
<td>34.31%</td>
</tr>
<tr>
<td>Online newsletters (d)</td>
<td>74</td>
<td>30.96%</td>
</tr>
</tbody>
</table>
4. Please rank accordingly, from 1-4, the NHSRU products you are most likely to use.[Ranking 4]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research evidence (reports) (a)</td>
<td>28</td>
<td>11.91%</td>
</tr>
<tr>
<td>Research in Action Summary, Fact Sheets, Placemats (b)</td>
<td>34</td>
<td>14.47%</td>
</tr>
<tr>
<td>Journal abstracts (c)</td>
<td>65</td>
<td>27.66%</td>
</tr>
<tr>
<td>Online newsletters (d)</td>
<td>108</td>
<td>45.96%</td>
</tr>
</tbody>
</table>
4. Do you access electronic information? If your answer is NO (please proceed to question 9)

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Y)</td>
<td>237</td>
<td>96.34%</td>
</tr>
<tr>
<td>No (N)</td>
<td>9</td>
<td>3.66%</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

![Pie chart showing the distribution of responses to the question about accessing electronic information. The majority (96%) answered yes, while 3.66% answered no, and 0.00% did not respond.](attachment:image.png)
5. Please indicate which types of NHSRU information you use.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHSRU website (a)</td>
<td>185</td>
<td>51.82%</td>
</tr>
<tr>
<td>Online newsletter (b)</td>
<td>130</td>
<td>36.41%</td>
</tr>
<tr>
<td>E-mail alerts (c)</td>
<td>142</td>
<td>39.78%</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>2.52%</td>
</tr>
</tbody>
</table>

Note: ‘Other’ responses include dialogue with faculty members, reports, and no NHSRU information used.
6. Do you use social media? If you answered NO (please proceed to question 9)

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Y)</td>
<td>88</td>
<td>39.11%</td>
</tr>
<tr>
<td>No (N)</td>
<td>137</td>
<td>60.89%</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

![Pie chart showing 61% for Yes and 39% for No]
7. Indicate the social media tools you access the most. [Ranking 1]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (a)</td>
<td>11</td>
<td>10.28%</td>
</tr>
<tr>
<td>Wikis (b)</td>
<td>5</td>
<td>4.67%</td>
</tr>
<tr>
<td>Twitter updates (c)</td>
<td>2</td>
<td>1.87%</td>
</tr>
<tr>
<td>Webcasts/podcasts (d)</td>
<td>36</td>
<td>33.64%</td>
</tr>
<tr>
<td>Facebook (e)</td>
<td>42</td>
<td>39.25%</td>
</tr>
<tr>
<td>LinkedIn (f)</td>
<td>11</td>
<td>10.28%</td>
</tr>
</tbody>
</table>
8. Indicate the social media tools you access the most.[Ranking 2]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (a)</td>
<td>18</td>
<td>20.45%</td>
</tr>
<tr>
<td>Wikis (b)</td>
<td>7</td>
<td>7.95%</td>
</tr>
<tr>
<td>Twitter updates (c)</td>
<td>5</td>
<td>5.68%</td>
</tr>
<tr>
<td>Webcasts/podcasts (d)</td>
<td>23</td>
<td>26.14%</td>
</tr>
<tr>
<td>Facebook (e)</td>
<td>18</td>
<td>20.45%</td>
</tr>
<tr>
<td>LinkedIn (f)</td>
<td>17</td>
<td>19.32%</td>
</tr>
</tbody>
</table>

![Pie chart showing the distribution of social media tool usage]

- Blogs (18) - 20.45%
- Wikis (7) - 7.95%
- Twitter updates (5) - 5.68%
- Webcasts/podcasts (23) - 26.14%
- Facebook (18) - 20.45%
- LinkedIn (17) - 19.32%
8. Indicate the social media tools you access the most. [Ranking 3]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (a)</td>
<td>8</td>
<td>14.04%</td>
</tr>
<tr>
<td>Wikis (b)</td>
<td>7</td>
<td>12.28%</td>
</tr>
<tr>
<td>Twitter updates (c)</td>
<td>10</td>
<td>17.54%</td>
</tr>
<tr>
<td>Webcasts/podcasts (d)</td>
<td>11</td>
<td>19.30%</td>
</tr>
<tr>
<td>Facebook (e)</td>
<td>7</td>
<td>12.28%</td>
</tr>
<tr>
<td>LinkedIn (f)</td>
<td>14</td>
<td>24.56%</td>
</tr>
</tbody>
</table>

![Pie chart showing the percentage of each social media tool accessed.]

The pie chart visually represents the data with each category colored differently for easy identification.

- Blogs (8) 25%
- Wikis (7) 19%
- Twitter updates (10) 18%
- Webcasts/podcasts (11) 12%
- Facebook (7) 12%
- LinkedIn (14) 14%
8. Indicate the social media tools you access the most.[Ranking 4]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (a)</td>
<td>8</td>
<td>16.67%</td>
</tr>
<tr>
<td>Wikis (b)</td>
<td>12</td>
<td>25.00%</td>
</tr>
<tr>
<td>Twitter updates (c)</td>
<td>9</td>
<td>18.75%</td>
</tr>
<tr>
<td>Webcasts/podcasts (d)</td>
<td>5</td>
<td>10.42%</td>
</tr>
<tr>
<td>Facebook (e)</td>
<td>8</td>
<td>16.67%</td>
</tr>
<tr>
<td>LinkedIn (f)</td>
<td>6</td>
<td>12.50%</td>
</tr>
</tbody>
</table>
8. Indicate the social media tools you access the most. [Ranking 5]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (a)</td>
<td>10</td>
<td>23.81%</td>
</tr>
<tr>
<td>Wikis (b)</td>
<td>10</td>
<td>23.81%</td>
</tr>
<tr>
<td>Twitter updates (c)</td>
<td>6</td>
<td>14.29%</td>
</tr>
<tr>
<td>Webcasts/podcasts (d)</td>
<td>5</td>
<td>11.90%</td>
</tr>
<tr>
<td>Facebook (e)</td>
<td>4</td>
<td>9.52%</td>
</tr>
<tr>
<td>LinkedIn (f)</td>
<td>7</td>
<td>16.67%</td>
</tr>
</tbody>
</table>

![Pie chart showing the distribution of social media tools accessed by respondents.](chart.png)
8. Indicate the social media tools you access the most.[Ranking 6]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (a)</td>
<td>7</td>
<td>17.50%</td>
</tr>
<tr>
<td>Wikis (b)</td>
<td>9</td>
<td>22.50%</td>
</tr>
<tr>
<td>Twitter updates (c)</td>
<td>13</td>
<td>32.50%</td>
</tr>
<tr>
<td>Webcasts/podcasts (d)</td>
<td>2</td>
<td>5.00%</td>
</tr>
<tr>
<td>Facebook (e)</td>
<td>3</td>
<td>7.50%</td>
</tr>
<tr>
<td>LinkedIn (f)</td>
<td>6</td>
<td>15.00%</td>
</tr>
</tbody>
</table>
9. What would you like to see the NHSRU host/produce?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web conference/webcast (a)</td>
<td>167</td>
<td>46.78%</td>
</tr>
<tr>
<td>Twitter updates (b)</td>
<td>5</td>
<td>1.40%</td>
</tr>
<tr>
<td>Blogs (c)</td>
<td>20</td>
<td>5.60%</td>
</tr>
<tr>
<td>Plain language research summary (d)</td>
<td>174</td>
<td>48.74%</td>
</tr>
<tr>
<td>Regularly scheduled face-to-face exchanges on research (e)</td>
<td>64</td>
<td>17.93%</td>
</tr>
<tr>
<td>Seminars, conferences, symposia (f)</td>
<td>137</td>
<td>38.38%</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>3.08%</td>
</tr>
</tbody>
</table>

Note: 'Other' responses include: Any of the above, none of the above, video conferencing (with audio or with type-in option), webinars, webcasting with call-in option, grey literature review, e-mail updates, funding opportunities, sector specific research, training, choice would depend on size and purpose of topic.
10. If you checked Web conference/webcast, which do you prefer?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web conferencing (I can see and hear the speaker and ask questions back using a headset microphone) (a)</td>
<td>146</td>
<td>40.90%</td>
</tr>
<tr>
<td>Webcasting (I can see and hear the speaker, but have no opportunity to ask questions or interact) (b)</td>
<td>58</td>
<td>16.25%</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>3.36%</td>
</tr>
</tbody>
</table>

Note: 'Other' responses include: Either of the above, none of the above, option to type-in questions, webinar with phone dial-in option, webinar with audio and PowerPoint presentation, interactive webinar, videoconferencing, choice would depend on size of group and purpose of topic.
11. If you chose web conferencing above, would you be willing to:

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase a headset microphone to ask questions by voice without causing feedback or echo (a)</td>
<td>72</td>
<td>20.17%</td>
</tr>
<tr>
<td>Type in questions, to be viewed and answered by the speaker during the event (b)</td>
<td>143</td>
<td>40.06%</td>
</tr>
<tr>
<td>E-mail questions after the event (c)</td>
<td>87</td>
<td>24.37%</td>
</tr>
</tbody>
</table>

![Bar chart showing the distribution of answers with corresponding counts and percentages]
12. Would you pay a fee for web conferencing?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Y)</td>
<td>69</td>
<td>41.32%</td>
</tr>
<tr>
<td>No (N)</td>
<td>98</td>
<td>58.68%</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
13. Are you interested in sharing your "hot topics" in nursing with other stakeholders?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Y)</td>
<td>149</td>
<td>88.17%</td>
</tr>
<tr>
<td>No (N)</td>
<td>20</td>
<td>11.83%</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
14. If yes, what do you think is the best way to do this?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHSRU blog (a)</td>
<td>67</td>
<td>18.77%</td>
</tr>
<tr>
<td>Web conferences (b)</td>
<td>104</td>
<td>29.13%</td>
</tr>
<tr>
<td>Teleconferences (c)</td>
<td>79</td>
<td>22.13%</td>
</tr>
<tr>
<td>Face-to-face (meeting) (d)</td>
<td>79</td>
<td>22.13%</td>
</tr>
<tr>
<td>Wiki (e)</td>
<td>8</td>
<td>2.24%</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>1.40%</td>
</tr>
</tbody>
</table>

Note: ‘Other’ responses include videoconferences, e-mail, LISTSERV, face-to-face meetings are inefficient.
15. Are there any other comments you would like to make about the NHSRU Knowledge Transfer activities?

<table>
<thead>
<tr>
<th>Answer</th>
<th>29</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No answer</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

- NHSRU research is very valuable for policy work, and the more readily available it is, the better. I don't make purchasing decisions and had to pass on questions implying expenditures.
- I would like to see this more accessible to those of us in community health care.
- Terrific resource to me - the information that comes to me e-mail is the very first information I will read for the day. Thank you.
- Just to remind you that NHSRU is a role model for nursing research, and I continue to appreciate having access to full research reports.
- I find that much of the research does not have applicability to my field and passions and therefore I don't check it as closely or regularly as might if I expected to see something applicable. I work in the Public Health Nursing field and have a passion for developing nurse leaders and advocates.
- Keep up sharing the good work. It stimulates me to keep up to date.
- The clinical setting today is caught in a flood of "evidence" and people in decision-making positions are often depending on others to synthesize the evidence being brought forward, it is a slippery slope.
- As mentioned social media is out. I appreciate and need the info however I find it tough to spend time negotiating websites and then reading lengthy reports.
- Since many of us have to provide evidence of continuing education, please work with accrediting bodies such has CCHL etc to have webcasts and seminars recognized for credits.
- Great source for best evidence.
- It would be a good idea to increase the profile of the Unit's activities with nursing students. Most of the students that I interact with do not know about this resource.
- NHSRU is doing excellent work, congratulations.
- Are there publications in journals of abstracts and research results from NHSRU? If NHSRU contributors can be invited to regional or national nursing conferences to present papers.
- I am interested in research to the practice of home care services in the community.
- It is a good modality for evidence sharing.
- The Health Human resource research has been very valuable in making decisions regarding our nursing workforce.
- For frontline nursing executives, the topics on current issues related either to models of practice, HHR, IEN and nursing shortage are helpful and save time while knowing that the research is reliable. I have a copy of Toward, a national report card for nursing on my desk. This is the topic as a director of nursing practice I need to be knowledgeable about but that I do not have time to research myself. I would like to see more on workload measurement and electronic documentation best practice. Thank you.
- Most organizations are very tight for money and are into accountability agreements. Payment may deter participation.
- While many of the social media opportunities are interesting to me and I would like to learn to participate, I haven't had much exposure to this in the past. I am willing to learn and to try out new technologies to help us connect with each other.
APPENDIX C. ONLINE SURVEY TEMPLATE

Stakeholder Survey on Stakeholder Preferences for Environmental Scan

We need your input

Knowledge Translation (KT) requires an understanding of the information needs and preferences of target audiences. The Nursing Health Services Research Unit (NHSRU) is conducting a survey of stakeholders to identify the ways they prefer to receive NHSRU information. The aim is to encourage more collaborative relationships and increase the likelihood that research will be consulted in relevant situations. Please give us a few minutes of your time by completing our survey. Your responses will help us understand the information needs and preferences of our stakeholders. Thank you for participating.

There are 15 questions in this survey

Demographics

1. Please tell us a little bit about yourself

Are you a…

Please choose all that apply:

☐ Employer
☐ Legislative decision maker (politicians, bureaucrats, interest groups)
☐ Administrative decision maker (program manager, hospital exec, regional admin, board member)
☐ Policy analyst
☐ Clinical decision maker (practitioners, specialty & professional society officials)
☐ Industrial (pharmaceutical company, software device, manufacturer)
☐ Researcher
☐ Faculty/Educator
☐ Student
☐ Other:

General

2. The main focus of the NHSRU is to generate evidence through research. How do you use NHSRU nursing research evidence?

Please choose only one of the following:

☐ To form policy agenda
☐ To support decisions (e.g. HHR staffing)
☐ Briefing notes, to inform committees & depts.
☐ To generate dialogue and debate
☐ To inform your membership
For peer reviewed research papers
Other

Make a comment on your choice here:

3. How frequently do you access information from NHSRU researchers?

Please choose only one of the following:
- Very frequently
- Frequently
- Infrequently
- Not Applicable

Make a comment on your choice here:

4. Please rank accordingly, from 1-4, the NHSRU products you are most likely to use.

Please number each box in order of preference from 1 to 4

- Research evidence (reports)
- Research in Action Summary, Fact Sheets, Placemats
- Journal abstracts
- Online newsletters

5. Do you access electronic information?

If your answer is NO (please proceed to question 9)

Please choose only one of the following:
- Yes
- No

6. Please indicate which types of NHSRU information you use.

Please choose all that apply:

- NHSRU website
- Online newsletter
- E-mail alerts
- Other:

7. Do you use social media? If you answered NO (please proceed to question 9).

Please choose only one of the following:

- Yes
- No

8. Indicate the social media tools you access the most.
Please number each box in order of preference from 1 to 6

☐ Blogs
☐ Wikis
☐ Twitter updates
☐ Webcasts/podcasts
☐ Facebook
☐ LinkedIn

9. What would you like to see the NHSRU host/produce?

Please choose all that apply:

☐ Web conference/webcast
☐ Twitter updates
☐ Blogs
☐ Plain language research summary
☐ Regularly scheduled face-to-face exchanges on research
☐ Seminars, conferences, symposia
☐ Other:

10. If you checked web conference/webcast which do you prefer?

Please choose all that apply:

☐ Web conferencing (I can see and hear the speaker and ask questions back using a headset microphone)
☐ Webcasting (I can see and hear the speaker, but have no opportunity to ask questions or interact)
☐ Other:

11. If you chose web conferencing above, would you be willing to:

Please choose all that apply:

☐ Purchase a headset microphone to ask questions by voice without causing feedback or echo
☐ Type in questions, to be viewed and answered by the speaker during the event
☐ E-mail questions after the event

12. Would you pay a fee for web conferencing?

Please choose only one of the following:

☐ Yes
☐ No

13. Are you interested in sharing your "hot topics" in nursing with other stakeholders?
Please choose only one of the following:

☐ Yes
☐ No

14. If yes, what do you think is the best way to do this?

Please choose **all** that apply:

☐ NHSRU blog
☐ Web conferences
☐ Teleconferences
☐ Face-to-face (meeting)
☐ Wiki
☐ Other:

15. Are there any other comments you would like to make about the NHSRU Knowledge Transfer activities?

Please write your answer here: