Abstract
Addressing Canada’s growing shortage of nurses requires effective strategies for their education, retention and recruitment. Although Nova Scotia produces more than 250 registered nurses and 125 licensed practical nurses each year, some 20% of these graduates leave the province to work elsewhere. The Nova Scotia Research to Action project focused on three retention and recruitment projects: (a) a new-nurse graduate orientation/transition framework, (b) guidelines for nursing mentorship and (c) an online employment tool to assist in the hiring of new nurse graduates. Project partners continue to work collaboratively to advance these provincial initiatives.

Background
Canada faces a growing shortage of nurses, underscoring the necessity of effective strategies for their education, retention and recruitment. Thirty-five percent to 61% of new graduates change their place of employment or leave nursing altogether within their first year of practice for a variety of reasons, including poor training, poor support systems and poor job satisfaction (Cowin and Duchscher 2006). It is generally acknowledged that orientation and transition programs have a major impact on new graduates’ decisions to stay with or leave an organization. A study conducted by the Foundation for Nursing Excellence (2009) on an evidence-based transition-to-practice initiative reported that successful programs that include positive preceptor–new graduate partnerships lead to increased feelings of competency on the part of new graduates, as well as increased competency scores and significantly fewer practice errors.
Although Nova Scotia nursing education programs have recently produced more than 250 registered nurses and 125 licensed practical nurses each year, about 20% of these graduates leave Nova Scotia upon graduation to work elsewhere. This exodus is believed to be due to aggressive recruitment by other jurisdictions and, perhaps more importantly, the ease of applying online for jobs in provinces such as Alberta and some parts of the United States. Complicating the problem is the fact that Nova Scotia does not have a provincial mechanism to coordinate job offers between new graduates and the district health authorities (DHAs) or long-term care or community care employers. Instead, graduates have had to locate vacancies on their own and apply separately to each DHA. In addition, Nova Scotia healthcare organizations rely heavily on overtime to fulfill nurse staffing requirements. Turnover negatively affects staff at the unit level, and senior staff are typically expected to work additional hours and with less support. High turnover also has an economic price, with the average cost of turnover to an institution in Canada estimated at $25,000 (O’Brien-Pallas et al. 2008).

The Nova Scotia Research to Action (RTA) project focused on three retention and recruitment initiatives: (a) new-nurse graduate orientation/transition, (b) mentorship guidelines and (c) tools and coordination of new graduate hiring in Nova Scotia. The goal of each was to create a standardized provincial approach to support new graduates during their first year of practice, increase retention and create a level playing field for all DHAs in the recruitment of new nurse graduates.

As part of the development of the first project, the Provincial Orientation and Transition Framework for New Nurse Graduates, two studies were conducted to assist in the development of a new-nurse orientation and transition-to-workplace program. These two studies were used to assist the project committee in the development of proposed provincial guidelines that included the following recommendations:

• The orientation period of new nurses will include a combination of classroom and clinical experience delivered over 12 weeks.
• Preceptor support will be required for the clinical orientation experience.
• Formal progress meetings will be held with the new graduate, nurse educator, manager and preceptor.
• Ongoing mentorship and peer-to-peer support will occur.

The second project, the 80/20 Late Career Nurse Strategy Mentorship Program Guidelines and Tools, entailed the development of tools and workshops providing educational opportunity for both mentors and mentees. A framework and
facilitator and participant manuals were developed for the workshops. Five workshops were held with over 75 participants. Nurses involved in the 80/20 projects had new opportunities to learn, build their own leadership capacity and make important practical contributions to their practice settings.

The third project, the Online Employment Tool for New Nurse Graduates, focused on the development of a provincial online tool to coordinate job offers between new graduates and the DHAs or long-term care or community care employers. The tool enabled access to employers’ profiles to allow students to learn about potential employers and for students to upload documents (cover letters, résumés, references) into an online student profile for employers.

The projects’ provincial partners included the Nova Scotia Nurses’ Union, the Nova Scotia Department of Health and Wellness and the district health authorities. There were, as well, a number of supporting partners, including the Nova Scotia HSPnet (Health Services Placement) management committee, three university schools of nursing (Dalhousie, Saint Francis Xavier and Cape Breton), the Nova Scotia Community College (which offers licensed practical nurse programs), the regulatory bodies for registered and licensed practical nurses, the Registered Nurses Professional Development Centre and the Provincial Nursing Network.

**Objectives**
The specific objectives of the Nova Scotia projects were

- to develop a provincial orientation and transition framework for new nurse graduates;
- to develop mentorship guidelines and tools for the 80/20 Late Career Nurse Strategy; and
- to develop an online employment tool for new nurse graduates.

**Implementation**
A full-time project coordinator was contracted for a 27-month period (January 2009 to March 2011). A full-time administrative assistant was also hired; this support was required to assist with the research ethics board submissions, as well as other administrative and support tasks. A 0.5 FTE research assistant was contracted for six months, primarily to work with the evaluation consultants and prepare for the multi-modal evaluation strategies required by the various DHAs participating in the pilot project.
The original project called for the participation of three district health authorities. The Nova Scotia steering committee decided to extend the project to apply to the entire province, and this led to an increase in the expected length of time required to complete the research ethics board approval process. The province’s nine DHAs and IWK Health Centre in Halifax each has its own research ethics board. As a result, the scope of the project had to be reduced. As well, the H1N1 influenza epidemic, and an impending labour strike action by unionized staff in the DHAs and IWK Health Centre, resulted in the project partners’ diverting considerable time to these important, but non-project–related, concerns.

**Project Components**

1. **Provincial Orientation and Transition Framework for New Nurse Graduates**

Two studies were conducted to assist in the development of a new-nurse orientation and transition-to-workplace program.

First, an external consultant was engaged to develop an inventory and, when possible, identify best practices of new-nurse orientation programs in Nova Scotia. An inventory was conducted among the acute care facilities in the nine DHAs, the IWK Health Centre, community care as delivered by the Victorian Order of Nurses Halifax and selected long-term care facilities in Nova Scotia. The inventory collected information on the core orientation components, including (a) pre-orientation practices, (b) general/district orientation practice, (c) general nursing orientation, (d) clinical skills orientation, (e) preceptor practice, (f) follow-up and (g) evaluation. The identification of best practices included components/elements, competency-based practices, innovative approaches and socialization practices.

The inventory revealed wide-ranging variability across the province and identified critical differences between the various healthcare facilities, districts and communities in the provision of new-nurse orientation and transition programs (Sampson 2009).

The second study, a comprehensive pan-Canadian literature review of new-graduate transition research, was conducted to identify components of programs that may be regarded as best practice in enhancing the effectiveness of orientation and that produce positive outcomes.

These two studies were used to assist the project committee in the development of proposed provincial guidelines for an enhanced new-nurse orientation and transition support, which included the following recommendations:
• The orientation period of new nurses will include a combination of classroom and clinical experience delivered over 12 weeks.
• Preceptor support will be required for the clinical orientation experience.
• Formal progress meetings will be held with the new graduate, nurse educator, manager and preceptor.
• Ongoing mentorship and peer-to-peer support will occur.

The Registered Nurses Professional Development Centre (RNPDC) provided additional funding to assist with developing the Provincial Orientation and Transition Framework. The framework was presented to the Provincial Nursing Network, which has continued to implement this standardized approach in supporting new graduates and transitioning nurses in Nova Scotia.

2. 80/20 Late Career Nurse Strategy Mentorship Program Guidelines and Tools
This program provided an educational opportunity for both mentors and mentees to gain an understanding of mentorship and its benefits to all involved. The goals of the mentorship program were to develop evidence-informed guidelines for the mentor component, utilizing designated provincial 80/20 Late Career Nurse Strategy (LCNS) funding, in order to determine how the mentor role meets the needs of eligible nurses related to workplace retention and, through collaboration, to develop the 80/20 LCNS (which includes scheduling and expectations for the mentor role).

A consultant with program planning and development expertise completed the developmental work for the mentorship program along with facilitation and co-facilitation of program workshops. The RNPDC provided a 0.5 FTE to continue the coordination of the provincial mentorship program. The workshop design and new-graduate transition program was greatly influenced by the work of Dr. Judy Boychuk Duchscher of the University of Calgary’s Faculty of Nursing, who has extensively researched the transition that occurs when a student nurse moves from the student role to that of a professionally practising nurse. From her research, she has developed the Transition Stages Model, which outlines what it looks and feels like to move through these stages and what can be done to help the new graduate (Figure 1).

**Mentor workshops: Design and implementation**
These workshops were designed as one-day, eight-hour workshops. The design was flexible so that the program could be delivered to intact groups of mentors, intact groups of mentees or to a mixed group of mentors and mentees. The goal of the workshops was to teach the basics of mentorship and the mentoring
relationship, as well as the challenges that may be encountered in mentorship of new nurse graduates, and also to expand mentoring opportunities for senior nurses.

**Figure 1.** Transition Stages Model

![Diagram showing transition stages model with stages: Learning, Performing, Concealing, Adjusting, Accommodating, Searching, Examining, Doubting, Questioning, Revealing, Separating, Recovering, Exploring, Critiquing, Accepting.]

Two manuals were developed for the workshops: a program participant manual and a guide for the facilitators leading the workshops.

The *Mentorship Facilitator Manual* included instructions for the program facilitators as well as pre-session preparation, instructions, agenda, workshop objectives and a PowerPoint presentation. Detailed instructions and discussion notes served to guide facilitators through “icebreaker” exercises and 15 structured activities (e.g., identification of supports required during phases of the transition period, mentee–mentor trust-building strategies, qualities of a successful relationship, etc.).
assessing mentee progress, multi-generational issues, conflict management, self-assessment for signs of stress in oneself and in the workplace, and coaching).

The Mentorship Manual given to participants included the workshop objectives, ground rules, agenda and an overview of the Transition Stages Model (Figure 1). It also included an overview of mentoring/preceptorship; benefits for the mentor, mentee and organization; stages of mentorship; generations in the workplace; personal learning goals, planning and assessment; giving feedback; listening effectively; conflict management skills and resolution; stress identification and management; and coaching. Additional resource materials were included in an appendix.

Five workshops were held with nurses participating from six DHAs; there were over 75 participants. Nurses involved in the 80/20 projects had new opportunities to learn, build their own leadership capacity and make important practical contributions to their practice settings. New graduates also identified that the support provided by their mentor has aided their transition to practice.

**Recruitment and participation in 80/20 Late Career Nurse Strategy**

The initial package for the 80/20 LCNS program, which was developed at the Department of Health and Wellness by the Office of Nursing Advisory Services, was revised and distributed to the nine district health authorities, the IWK Health Centre and long-term and continuing care facilities in the province to communicate to nurses the opportunity to participate in mentoring workshops and to become potential mentors for new nurse graduates.

The Nova Scotia Department of Health and Wellness provided funding for the backfilling of positions for those nurses attending the mentorship program workshop and participating in the 80/20 projects. The department also supplied communications advisers to assist with development of resources and strategies for project marketing. The DHAs contributed the funding for new graduates to attend the mentorship program workshops and a 0.3 FTE to lead and support the mentorship program and 80/20 projects within their respective districts. The employers provided human resources consultants and administrative support from various levels within their district health authority to assist in data collection and the evaluation strategies.

Eight DHAs applied to participate in the 80/20 project, and those employers posted invitations for nurses to apply. A lower-than-expected number of late career nurses applied, and the steering committee agreed to expand the criteria.
to include other interested registered nurses, leading to an increase in applications. There was significant resistance from some nurse managers to the introduction of the 80/20 model, and this point was addressed through strong, committed and continued leadership at the district level in moving cultural change forward.

A total of 20 nurses participated as mentors from five DHAs. Some resources were adapted from the 80/20 strategy implemented in the Research to Action project in British Columbia. The primary role for participating nurses was to act as mentors to new nursing graduates, but there was also time for mentors to engage in a range of other professional development activities, such as new practice protocols for critical care and emergency care, development of patient education brochures and a cardiopulmonary resuscitation policy for one of the participating DHAs. All mentors received education and training, and manuals were developed for participants and facilitators.

3. Online Employment Tool for New Nurse Graduates
This project focused on the development of a provincial online tool to coordinate job offers between new graduates and the province’s district health authorities, long-term care and community care employers.

The NS Department of Health and Wellness utilizes a web-based system for managing nursing practice education. The Health Sciences Placement Network (HSPnet) was launched in April 2003 by the BC Academic Health Council and provides a web-based system for managing practice education in the health sciences with a database and tools to support practice education. With funds from the RTA project, an enhancement to HSPnet was purchased that enables the system’s capacity to develop an online, coordinated provincial approach to new graduate hiring.

A multi-stakeholder HSPnet deployment work group developed and piloted the employment tool for new graduates. The tool enabled access to employers’ profiles to allow students to learn about the employer and for students to upload documents such as résumés and references into an online student profile for employers. Employers were assisted in the development and activation of their site profiles in workshop/training sessions and also teleconferences conducted by the national HSPnet director with employers’ human resources personnel. Consent forms were revised by the universities to enable student access to HSPnet.
The HSPnet employment tool for new graduates was launched in July 2010 with a small pilot group of 17 students who were graduating from the Dalhousie School of Nursing. A delay in the full implementation of the HSPnet enhancement for new graduate employment was due to the workload of the national HSPnet team and revisions to consent forms requiring the approval of the university’s legal department. Full implementation of the tool began with the spring 2011 graduating classes of Dalhousie and St. Francis Xavier universities’ schools of nursing.

The HSPnet new graduate employment tool that was developed through this project is now available across Canada to educational programs that use HSPnet for student placement.

**Lessons Learned**
- The individual projects could have been implemented earlier if the scope of the overall RTA project had not been expanded beyond the original proposal.
- In organizations where there are deep-seated trust issues in management, or where the culture is change resistant, the introduction of a new 80/20 model requires strong, committed and persistent leadership. This is required both to encourage adoption of the model by nurses but also to ensure support of the change by front-line and middle management.
- Employers should receive the tools to aid in successful implementation of 80/20, and managers should be included in the mentorship education programs to support scheduling and meetings between mentors and mentees.
- To facilitate mentor–mentee communication, a variety of strategies should be employed: group mentoring sessions, face-to-face meetings, and communication through telephone calls, email and messaging.

**Sustainability and Transferability**
Project partners are continuing to work collaboratively to advance these provincial initiatives.

- The orientation and transition framework has been presented to the Provincial Nursing Network, and work continued in 2011 to implement this evidenced-based, standardized approach to supporting new graduates and transitioning nurses.
- There is very strong interest in and advocacy for the 80/20 initiative to continue among project partners. The mentorship program will continue as a provincial program under the auspices of the Registered Nurses Professional
Development Centre. Another provincial union that represents nurses, the Nova Scotia Government Employees Union, has also expressed interest in the 80/20 initiative.

The HSPnet Online Employment Tool can be broadened for use with the Co-operative Student Employment Opportunity for third-year nursing programs and, eventually, with graduates of the Continuing Care Assistant Program and those of licensed practical nurse programs.

Acknowledgements
We would like to thank the Nova Scotia Research to Action Steering Committee and also Joan Philpitt for administrative support.

References