Public Health Chief Nursing Officer Working Group Report

August, 2011

Ontario

Table of Contents

Executive Summary

The *Ontario Public Health Organizational Standards* require boards of health to designate a Chief Nursing Officer (CNO) by January 2013. To facilitate the implementation of this requirement, a Public Health Chief Nursing Officer Working Group[1] was established, jointly sponsored by the Ministry of Health and Long-Term Care (MOHLTC), the Registered Nurses Association of Ontario (RNAO) and ANDSOOHA - Public Health Nursing Management (ANDSOOHA), with representation from the Council of Medical Officers of Heath (COMOH); public health Chief Executive Officers (CEOs)/Chief Administrative Officers (CAOs) and Business Administrators; Ontario Nurses Association; current CNOs/senior nurse leaders; and the ministries of Health Promotion and Sport (MHPS) and Children and Youth Services (MYCS).

The Working Group's objectives included identifying and documenting role and requirements for public health CNOs and CNO implementation experiences and strategies. It developed recommendations on CNO role and requirements to provide information and guidance to boards of health and to foster greater consistency of the CNO role in public health units across the province. The recommendations were informed by literature reviews, the expert opinion of current public health CNOs and nurse leaders and an understanding of the public health context. The recommended CNO role incorporates the themes of Nursing Practice Quality Assurance and Continuous Quality Improvement, Nursing Leadership, and Organizational Effectiveness. The CNO requirements outline professional requisites and minimum levels of experience and education for CNO designates.

An environmental scan of public health units was conducted to establish a baseline for CNO roles in the province and to engage the field in sharing good/best practices, challenges and opportunities for CNO role operationalization. Informed by the environmental scan, the Working Group developed six recommendations to facilitate the implementation of the CNO role in public health units and to maximize their contribution to public health in Ontario.

The recommendations include government endorsement of the "CNO Role and Requirements" and emphasis on the expectation that the CNO role be implemented at a management level. To facilitate implementation of the CNO in public health units, the Working Group recommends that a variety of models be accepted, based on the organizational structure of the public health unit, and that transition provisions be reassessed in 2013 to determine the need to retain the accommodation. To ensure and support effective implementation of the full scope of the CNO role, the Working Group recommends the consideration of accountability measures and indicators; support for the provision of a CNO orientation session; and on-going opportunities for professional development, communities of practice and knowledge exchange.

[1] CNO Working Group terms of reference and membership list are provided in Appendix A.

1. History of the Public Health Chief Nursing Officer Initiative

Discussions respecting the need for and establishment of a CNO or nursing practice lead (NPL) in Ontario's public health units have continued for more than a decade.

In February 2000, the then Chief Medical Officer of Health (CMOH) and the Provincial Chief Nursing Officer (PCNO) endorsed the implementation of a CNO or NPL position in public health units in a letter issued to all Medical Officers of Health (MOHs). This letter positioned the implementation of a CNO within each public health unit as a preferred model within the organizational structure, and as a recognized best practice. In its May 2006 final report, the Public Health Capacity Review Committee recommended that the Ministry "…enforce the 2000 directive regarding the appointment of a senior nurse leader in each health unit."

In February 2011, the MOHLTC and MHPS issued the *Ontario Public Health Organizational Standards* which establish management and governance requirements for all boards of health. The *Organizational Standards* require all 36 boards of health to designate a CNO by January 2013, "…to be responsible for nursing quality assurance and nursing practice leadership." It was noted at the time that additional work would be undertaken in 2011 with RNAO and ANDSOOHA to define the role and requirements of the CNO position within public health, including implementation considerations and associated resource implications.

While many public health units currently have nursing leadership positions in place, a consequence of the non-prescriptive language of the February 2000 CMOH/CPNO letter was that public health units have implemented the CNO functions with varying scopes of activity and levels of accountability. The CNO requirement in the *Organizational Standards* aims to enable consistency in the designation, accountability, role and functions of CNOs in Ontario's public health units. In May, 2011, the Province confirmed its commitment to nursing leadership in public health by announcing that support would be provided to boards of health to meet the CNO requirement under the *Organizational Standards*.

In issuing the *Organizational Standards,* the ministries also committed to undertake additional work to define the role and requirements of the public health CNO. Thus, a Chief Nursing Officer Working Group, jointly sponsored by the MOHLTC, RNAO and ANDSOOHA, and with representation from the COMOH, public health CEOs/CAOs and Business Administrators, Ontario Nurses Association, current CNOs/senior nurse leaders, MHPS and MCYS, was struck and met from June to August 2011. This report is a summary of that work.

2. Ontario's Public Health Context

The context of public health differs from other health settings where CNOs function. As stated in the *Ontario Public Health Standards,* "…the primary focus of public health is the health and well-being of the whole population through the promotion and protection of health and the prevention of disease." The public health system includes governmental, non-governmental and community organizations operating at the local, provincial and federal levels. In Ontario, there are 36 boards of health that are responsible for the delivery of local public health services and programs, and are accountable for meeting the provincial standards under the *Health Promotion and Protection Act* (HPPA). Public health units are the operational arms of boards of health.

Province-wide, boards of health have three different organizational structures:

- Autonomous boards (encompassing multiple county and/or municipal governments);
- Councils of single tier municipalities (e.g., City of Toronto and City of Ottawa) where the board of health is a standing committee of council; and,
- Councils of regional municipalities (e.g., regional municipalities of Peel and Waterloo), where the regional council is the board of health.

There is also considerable variance among and across board of health jurisdictions with respect to geographic size, size and composition of populations served, type of community, and prevalence of priority populations.

The structure of the board of health affects how the public health unit is organized and managed and will, necessarily, affect the implementation of the CNO Initiative.

The HPPA mandates six key public health functions: population health assessment; health surveillance; health promotion; disease and injury prevention; health protection; and emergency preparedness and response. These functions are often integrated in order to more comprehensively address public health issues. Nurses working in public health contribute to all six functions and are involved in the range of programs and services provided by public health units in chronic disease and injury prevention, family health, environmental health, infectious diseases control, emergency preparedness and health promotion. In their work, nurses in public health[2] (PHNs) draw on skills and competencies from the four domains of nursing: clinical practice; research; leadership; and education. A CNO working in public health would be expected to address, and be accountable for, ensuring PHNs can apply the full scope of nursing practice to contribute to organizational effectiveness and ultimately, improve population health.

3. Summary of Literature Review

To inform the Working Group in its discussions and decision making, cross-jurisdictional literature reviews were undertaken on the roles and responsibilities of CNOs, comparable positions, and the organizational and practice benefits related to those roles. There is limited literature relating to CNOs in public health organizations, both in Canada and other jurisdictions.[1,2,3] Therefore, findings from other health care organizations, most commonly hospitals, comprised the majority of the reviewed literature. However, many of these findings are able to inform and relate to the public health context. The Working Group used the literature review findings with an understanding of the unique context of public health in Ontario as an added dimension for consideration when interpreting research outcomes.

3.1. Nursing Leader Role and Responsibilities

Within the literature, CNOs are generally defined as nurses on the senior management team of an organization, who oversee quality assurance and professional practice for the nurses and other health professionals. Literature relating specifically to public health revealed that the responsibilities and duties of CNOs, and comparable positions, differ based on a number of factors including the setting and size of the organization. In addition, the literature across health care settings suggests that the roles are diverse, vary in terms of responsibilities, and are increasingly beyond the sphere of nursing.[4,5,6,7,8] Despite this variance, common functions were identified.

[2] Referred to collectively as "public health nurses" or PHNs, without limiting the variety of qualifications held by nurses working in the public health sector.

Only four sources were identified that looked specifically at the roles or responsibilities of public health nurse executives, they were all from the US. A survey of public health nursing leadership job descriptions identified four core functions. Although responsibility and duties varied, the majority of the roles fit into one or more of these categories: assessment, policy, quality assurance and leadership.[9] The study also found that 66% of the job descriptions submitted contained functions that are considered general public health duties. Another study focused on the public health nurse executive's role in policy development.[10] In addition to this research, two documents gave examples of the specific duties of two particular nurse executive positions in public health in the US.[11,12]

When looking at research and documents about the roles and responsibilities of nursing leaders across healthcare settings, a number of common functions were identified, including clinical governance and service delivery[13,14,15,16,17,18,19], human resource management[20,21,22,23,24,25,26], leadership in general[27,28,29,30], but also specifically for the nursing profession[31,32,33] and patient safety and experience.[34,35,36,37,38,39,40,41] Other functions included business and financial issues[42,43,44,45,46,47,48], policy[49,50,51,52,53,54,55], quality assurance[56,57,58,59,60,61], assessment and planning[62,63], representing the organization externally[64,65,66], participating as a member of the executive team[67,68], facilitating the conduct, utilization and use of research[69] and serving as a change agent.[70]

3.2. Nursing Leader Effectiveness

Much of the literature focused on factors that relate to nursing leader effectiveness generally. The education level and experience of a nursing leader are found to be associated with effective leadership and CNO innovation. Two articles noted the importance of a graduate level education[71,72], and one elaborated that a master degree in nursing, as opposed to other disciplines, may better prepare nurses to become transformational leaders.[73] The literature states the importance of the nurse leader being a member of the senior leadership team who is involved in organizational decision making, and who reports to the head of the organization.[74,75,76,77] Organizational commitment to nursing and nursing practice also promotes nursing leader effectiveness. Organizations that have nursing as an explicit priority, including nursing participation at the highest level of decision making, develop and promote a supportive organizational culture for nursing.[78,79,80]

3.3. Value of Nursing Leaders

Literature on the value of the CNO, and nursing leaders in general[81], often reflects a strong belief in their benefit for nurses, organizations and patients.[82,83,84,85] The value of nurse leaders is expressed broadly as essential to the success of the organization generally[86] and nursing profession specifically[87,88], as inspiring a shared vision and commitment[89], and influencing the future of the health care organizations.[90] A number of studies explore through theory and empirical study specific contributions that nursing leaders make for the benefit of nurses, the organization and patients, and the interconnections of these benefits. This literature serves to address the often understated and poorly understood value of the CNO role.[91]

Also explored in literature is the relationship of nursing retention with nursing leadership, and the functions and expectation of the CNO role.[92,93,94] A participatory management style, including accessible, visible and transformational leadership, encourages nurse retention.[95,96] Organizational factors under the influence of a CNO, including relevant orientation programs,

support for professional development, and opportunities for reflective practice, are recommended to improve nurse retention.[97] The link of nurse retention and job satisfaction to better patient outcomes was also noted.[98]

Nursing leaders contribute to building a positive work environment. Effective leadership is seen as a critical component in building cohesion among nurses, accessing empowerment structures[99] and in implementing a nursing practice model.[100] The building of positive work environments is interrelated with other outcomes, including nurse empowerment, job satisfaction, work performance and effectiveness, and occupational mental health.[101,102,103,104] One study explored the relationship of improvements in these factors with patient outcomes, finding that magnet hospitals, which are recognized for positive nursing workplaces, were found to have lower mortality than other hospitals with similar organizational characteristics but not the same priority for nursing.[105] One study noted specifically that nurses perceive their performance as influenced by components related to nursing leadership, including autonomy, access to resources and leadership practices.[106] In addition, staff performance has been found to mediate the relationship between transformational nursing leadership and improved patient outcomes.[107]

Nursing leaders promote the use of research and evidence, innovation and knowledge exchange in nursing practice.[108,109,110,111,112,113,114] They lead adoption and diffusion[114], facilitate access to information, training and education[115], and create an organizational culture of best practices.[116] Visible nursing leadership was found to be significantly associated with a greater perceived support for innovation in one study.[117] Another article highlighted the value of nurse leaders in promoting knowledge transfer among nurses in the context of an aging workforce.[118]

4. Current Status of Public Health Chief Nursing Officers in Ontario

Nurses currently represent over 60% of the professional FTE designation in Ontario's public health system. There are more than 3,000 nurses (including public health nurses, registered nurses, registered practical nurses, and nurse practitioners) working in Ontario's 36 public health units.

Information on the current status of public health CNOs in Ontario was gathered through a survey open to all public health units in Ontario in August 2011. The survey was intended to establish a baseline for CNO roles in the province.

- Of the 36 public health units in Ontario, 33 responded to the survey, for a response rate of 92 per cent.

The majority of public health units in Ontario are operationalizing the CNO role and functions in some manner.

- While approximately one third (30%) of responding public health units have a formally designated CNO, 79 per cent have some form of Senior Nurse Leader (SNL) within the organization, either formally designated or informally identified.
- Only five (15%) of the responding public health units had no CNO or SNL in place, and had not begun planning to include one.
- Two public health units (6%) responded that they have no CNO/SNL, but planning for CNO designation was underway.
- About two-thirds (64%) of respondents stated that their public health unit has a Nursing Practice Council. The presence of an Nursing Practice Council was not an indicator of a public health unit having a CNO/SNL.

There are a number of common characteristics of CNO and SNL roles within public health units.

- In the public health units that stated they had a CNO/SNL, all shared the role with another position.
- In most cases, the role was shared with a position at the senior management level[3], for example, Director Health Protection and Director Family Health. Eighty-eight per cent of respondents stated that their CNO/SNL reports to the CEO or MOH.
- In eight cases (31%), the CNO/SNL role was specified as a part of the job title.
- Almost all (92%) the CNO/SNLs had over ten years of nursing experience.
- When asked to estimate the proportion of the current CNO/SNL's time that is available for regular performance of CNO functions, 73 per cent of respondents said CNO/SNL functions are allocated less than 0.2 FTE. The remaining respondents (29%) indicated that the time available was either 0.2 FTE, 0.3 FTE (often designated or allotted for specific CNO functions) or not applicable. Anecdotes provided alluded to lack of time available for CNO role/function implementation as a result of competing priorities with other management responsibilities.
- Two public health units commented the CNO functions were undertaken in different ways.
    - In one, the CNO role is shared among four nursing directors. It was estimated that the total time available for CNO functions was 0.8 FTE, shared among these four positions.
    - The other public health unit commented that while their CNO dedicates one day per week to the role, a nursing specialist position carries out a significant proportion of the tasks related to CNO functions. They advised that without this support, the CNO role would be full time.

5. Implementation Opportunities and Issues

The MOHLTC also engaged the public health field through questions posed via an information session on the CNO Initiative to a variety of public health unit staff, including CNOs/SNLs and MOHs. Participants were asked to share what they perceived to be good/best practices for CNO role operationalization, based on current experiences within their respective organizations, as well as challenges and opportunities for implementation

The following is a summary of common themes identified on three specific topics: (a) Good practices/best practices for operationalizing the CNO role, (b) Challenges in implementing the role and potential solutions, and (c) Resources and supports to facilitate the implementation of the role.

5.1. Good Practices/Best Practices for Operationalizing the Role

Public health units that currently had a CNO or SNL in place provided anecdotal information that identified and supported the effectiveness and utility of such a role within the organization. Good/best practice suggestions included:

- Establishing the designated CNO role at the senior management level, where CNOs are able to bring forward the nursing perspective and contribute to and support organizational strategizing and effectiveness.

[3] Health units have a variety of management structures, some flatter than others. In general, the CNO/SNL role was embedded at the most senior management level within the structure, such as, program manager, director or chief executive officer.

- Building in accountability mechanisms within the Organizational Standards above simple designation of the CNO (e.g., incorporating a CNO role into specific management positions, and enacting board of health by-laws to designate discipline practice leads in the public health unit). It was argued that such accountability would give the role credibility and authority, and foster meaningful change. One public health unit offered as an example that their board of health had passed a by-law requiring that each discipline had a designated practice leader within the public health unit.
- Providing for contributions to be made as part of larger inter-disciplinary practice structures and functions.
- Providing opportunities for CNOs to contribute to broader health care system level discussions and to inform policy, program and practice issues, as well as decisions where there are implications for public health and public health nursing.

A number of public health units highlighted the importance of designating the CNO role at senior management level as best practice. CNOs embedded within such positions shared their experiences which included the ability to bring a nursing perspective to organizational level dialogue to inform decisions on organizational strategic planning. Other examples included: facilitating evidence-based practice; assessing and articulating how nursing practice decisions connect with organizational strategies; acting as a conduit between senior management and Nursing Practice Councils; bringing front line perspective to the decision-making table; and participating in discussions regarding strategies to support professional practice in the organization and its benefits to the community and populations.

The CNO role was described by one MOH as “indispensable” within a public health unit. The role supported review of policy, professional development, mentorship and leadership, and contributed to organizational operations and effectiveness, and in some cases, during critical public health emergencies. An example provided included the coordinating role the CNO played in identifying, organizing an operationalizing the training and service delivery by nursing staff during the H1N1 emergency, and ensuring that implementation of required immunization services functioned effectively and efficiently to meet immediate needs in the population and community served by that particular public health unit.

In a number of public health units, an inter-professional model with practice leaders for each discipline has been operationalized. Benefits of an inter-professional practice council include: promotion and support of inter-professional practice within public health; eliciting common issues across disciplines for collaborative problem solving; and facilitating the sharing of resources and streamlining of organizational policies and practices (e.g., common documentation, medical directives, integration of best practices and evidence-based practice, etc.).

As a sub-set or in lieu of inter-professional practice councils, some public health units also have a Nursing Practice Council which is chaired by or receive support from the CNOs or SNLs. These Nursing Practice Councils often develop resources or programs for professional development or practice that are picked up by other disciplines within the public health unit, and modified to meet their professional and practice needs. One example provided was a nursing leader mentorship program that was utilized to create something similar for other disciplines within the public health unit.

Comments and examples were also provided to highlight the impact that public health nursing leadership contributes to the broader health system. Public health CNOs are able to articulate competencies and practice environments that are distinct from other areas of nursing and its contributions to the health care system as well as its unique needs in order to practice within the

domain of public health (e.g., regulatory requirements, standards of practise, etc.). It was argued that this voice is required where broad policies decisions may be made that are suited for clinical nursing practice in institutional settings rather than population based nursing in communities.

5.2. Challenges to Operationalizing the Role

Issues highlighted included:

- Finding suitable candidates in northern/rural areas given the nursing shortages and difficulty accessing graduate education in those regions;
- The need to consider equivalency for those CNOs with decades of public health experience but no graduate degree, and
- The fact that most director level positions within public health units, where a CNO role may be embedded, do not generally require graduate level preparation.

While there is consensus that having graduate prepared CNOs is a best practice and expected, some flexibility respecting this pre-requisite during a transition phase and consideration of equivalency on a case by case basis were suggested.

Funding was also raised as a challenge. Participants commented on the availability of adequate funding to hire a full-time CNO so that other responsibilities carried by senior management positions could be assigned elsewhere. This would allow CNOs to focus on nursing practice and professional development, leadership and organizational effectiveness, and mitigate potential CNO role dilution that could occur when other programmatic responsibilities carried by the incumbent take priority.

In public health units where inter-professional practice is promoted and implemented, there is some concern that designating a CNO places the nursing professional above others within the public health unit, and be perceived as implying greater priority or importance. It was noted that while the *Organizational Standards* mandate boards of health to designate a CNO, it also encouraged boards to consider models for inter-disciplinary practice and the establishment of other discipline specific practice leads.

It was noted that leadership of a few public health units have questioned both the need of the CNO role within public health units as well as some aspects of the role and requirements of a CNO. Concerns were raised that without support from public health unit leadership (e.g., MOHs, CEOs, boards of health), implementation of the role may not occur or may be limited to nursing quality assurance tasks. The *Organizational Standards* require that a CNO be designated; however, there is no question that without full support from and commitment of the organization's leaders, the intent and full benefit of the role may not be fulfilled. It was suggested that the Ministry consider opportunities to work with public health leadership to facilitate implementation of CNOs within a model that best works with their organizational structure, while still fulfilling as much of the role and requirements recommended by the Working Group as possible.

A final challenge identified is the ability of a public health unit to embed the CNO role and requirements in an existing senior management position. In some public health units, currently there are no nurses holding senior management positions and no expected vacancies or expansions. Additionally, senior management positions may not be discipline-based. Participants suggested that it may be necessary to have some flexibility to allow consideration of alternative models that might work depending on the context of the public health unit (e.g.,

embedding the CNO role in a non-executive management position, but allowing for contribution at the senior management table).

5.3. Resources and Supports

Participants proposed a variety of supports and resources to facilitate implementation and on-going development of the CNO role and functions. These have been highlighted below:

- *Role and Responsibilities:* There was an overwhelming request for a clearly defined role and responsibilities for the CNO to articulate expectations and promote consistency of the role across public health units. Also recommended was the development of performance measurements relating to the role and links to organizational accountability.
- *Networking:* Several participants requested that mechanisms and structures be established to facilitate provincial networking and information-sharing among CNOs as well as opportunities to meet (e.g., special sessions at the Ontario Public Health Association conferences). Suggestions also included coordination at the Ministry level through a provincial nursing leader (i.e. Nursing Secretariat and PCNO) or at the Public Health Division level (i.e., through a nursing practice leader). It was also proposed that both RNAO and ANDSOOHA could play coordinating and supportive roles.
- *Flexibility with role implementation and models:* To accommodate the diverse organizational structures of public health units, it was suggested that some flexibility be provided respecting role implementation to best suit the needs of the public health unit (e.g., in smaller public health units, ability to use the CNO to support all disciplines with practice issues and professional development regarding core competencies).
- *Funding:* It was suggested that funding to support implementation of the CNO role be considered, including provision of salary dollars to employ nursing practice leads to support operationalization of some of the CNO's functions.
- *Orientation session and resources*: It was proposed that some type of formal orientation session to introduce the role be undertaken. Both RNAO and ANDSOOHA offered to facilitate such a session and advised that it had already developed resources to support nursing leadership development.

6. Recommendations for the Role and Requirements

In the *Organizational Standards* the government committed to undertaking further work with RNAO and ANDSOOHA to support implementation of the CNO requirement by boards of health. Therefore, a primary task of the Working Group was to make recommendations on the role and requirements for Public Health CNOs. The complete recommendations can be found in Appendix B.

The recommended role and requirements are intended to provide information and guidance to boards of health on the scope of functions a CNO should undertake in their public health unit. The recommendations are not intended to be a job description nor are they tied to funding requirements. The recommended role and requirements seek to elicit the best outputs and outcomes possible for nursing practice, leadership and organizational effectiveness from the CNO role, as well as foster greater consistency in the CNO role and functioning across public health units. It is recognized that given the diversity of public health units across the province, boards of health are able to implement the CNO role in a manner that best suits their

organizational structure and the context of their public health unit. The Working Group sought to incorporate such flexibility in the development of the recommended CNO role and requirements.

The role and requirements were informed by the literature, expert opinion and the roles and experiences of current public health nurse leaders in Ontario. A cross-jurisdictional literature review, summarized earlier, was conducted on the roles and responsibilities of CNOs. The literature related to CNOs in public health contexts and in the Canadian context is limited. Thus, this review and analysis required extraction of key roles and requirements that would be applicable to the Ontario public health context from other health care sectors and jurisdictions.

The Working Group's analysis was also informed by resources and documents provided by public health units and organizations in Ontario and guided by the expertise of both existing CNOs in Ontario public health units and other stakeholders. Through Working Group meetings, crucial roles and requirements were identified, synthesized and, where appropriate, excluded. In so doing, three themes were identified and used as a framework for the recommended role. The themes are: *Providing Nursing Practice Quality Assurance and Continuous Quality Improvement, Providing Nursing Leadership and Supporting Organizational Effectiveness*.

Consensus was reached on the *Nursing Practice Quality Assurance and Continuous Quality Improvement* and *Nursing Leadership* themes. However, consensus was not reached on the inclusion of contribution to "organizational … *decision-making*" under the *Organizational Effectiveness* theme in the recommended role. The representative from COMOH advised that the organization supports implementation of the CNO role at the senior management team level, but did not support the inclusion of "management decision-making" as a defined function of the CNO role, and requested official recognition of its non-support from the Working Group.

Lack of consensus centred specifically on the expectation that the CNO role *per se* would include contribution to "organizational …decision-making", which COMOH views as the function of the senior management position in which the CNO role is embedded, making its inclusion in the CNO role inappropriate. COMOH noted that its position was consistent with the wording of the *Organizational Standards* which identifies responsibilities relating to "…nursing quality assurance and nursing practice leadership."

The counter perspective was that to fulfill the CNO's nursing practice and nursing leadership roles, and to ensure that public health units benefited fully from such expertise, it is required that the CNO have the legitimacy, opportunity and obligation to provide a nursing perspective to organizational management discussions and processes, such as strategic planning and the associated decision-making. Additionally, like any other public health manager with discipline-specific knowledge, CNOs would be expected to apply the full range of their competencies to facilitate organizational effectiveness and success. Therefore, it is appropriate to recognize as a function, ***contribution*** to organizational strategic planning and decision-making from a CNO perspective.

While discussions occurred at several meetings to clarify this area of disagreement, consensus was not reached and COMOH's objection was noted and has been brought forward in this report.

7. Recommendations

The Working Group makes the following recommendations to facilitate the implementation of the CNO role in Ontario's public health units and maximize their contribution to public health in Ontario.

1. *That the "CNO Role and Requirements" (outlined in Appendix 2) be endorsed by the government as a best practice and disseminated to inform boards of health respecting the implementation of the CNO Initiative.*

2. *That the government emphasize the expectation that the CNO role will be implemented at the senior management team level within the public health unit and reinforce this requirement if and when the Organizational Standards are updated.*

3. *That in facilitating implementation of the CNO role, the government allow for a variety of models that reflect and respect the specific organizational structure of public health units and enhance resources available for such purposes.*

4. *That the provision to allow designated CNOs that lack graduate preparation a three-year period from date of designation to obtain a relevant graduate degree be viewed as an accommodation during a transition period, and be revisited in 2014 to assess the necessity for retention of the accommodation.*

5. *That the development of accountability measures and indicators respecting implementation and maintenance of the CNO Initiative be considered and, as appropriate, included in public health accountability agreements when they are refreshed in 2013.*

6. *That the government, in collaboration with public health and nursing partners, support provision of an orientation session respecting CNO role and requirements, and on-going opportunities for CNO professional development, communities of practice and knowledge exchange.*

Appendix A: Public Health CNO Working Group

Terms of Reference:

The Public Health Chief Nursing Officer Working Group was struck to support the implementation of CNO positions by Ontario's 36 boards of health to meet the requirements of the Ontario Public Health Organizational Standards. Specifically, the Working Group is responsible for:

- Identifying the range of roles and responsibilities of a CNO applicable within a public health context;
- Documenting implementation experience and strategies for CNO roles in public health and identify potential best practices for implementation; and,
- Developing this report for the Executive Sponsors that includes recommendations.

The Working Group held its inaugural meeting on June 9th and met throughout the summer to develop recommendations on the CNO role, requirements and implementation within health units. The aim was to have recommendations available to provide best practices guidance so that boards of health had the opportunity and support to implement the CNO initiative prior to the January 1, 2013 deadline specified in the Organizational Standards.

Working Group decisions were made by consensus; however, the terms of reference provided that were consensus was not achieved, it would be documented and included in the Working Group's report.

Membership:

Organization	**Member/Representative**
Executive Sponsors:	
Ministry of Health & Long-Term Care (MOHLTC)	Sylvia Shedden, A/Assistant Deputy Minister, Public Health Division (at time of the working group initiation)
Registered Nurses Association of Ontario (RNAO)	Doris Grinspun, Executive Director
Joint Chairs	
Ministry of Health & Long-Term Care (MOHLTC)	Michèle Harding, A/Director, Public Health Practice Branch
Registered Nurses Association of Ontario (RNAO)	Irmajean Bajnok, Director, International Affairs and Best Practice Guidelines Program and RNAO Centre for Professional Nursing Excellence
Association of Nursing Directors and Supervisors in Official Health Agencies (ANDSOOHA)	Jo Ann Tober, President ANDSOOHA and CEO, Brant County Health Unit
Members	
Council of Medical Officers of Health	Dr. Graham Pollett, MOH, Middlesex-London Health Unit
Public Health Chief Executive/Administrative Officers	April Reitdyk, Director, Public Health, Chatham-Kent Public Health Unit
Business Administrators in Public Health	Ann Schlorff, Director, Central Resources, Waterloo Health Department
Nursing Secretariat, MOHLTC	Sandra Oliver, Senior Policy Analyst
Ontario Nurses Association	Barbara Deter, PHN, Windsor-Essex Health Unit

Organization	Member/Representative
RNAO Senior Nurse Leader	Carol Timmings, Chief Nursing Officer and Director, Chronic Disease Prevention, Toronto Public Health
Senior Nurse Leader	Joyce Fox, Director of Healthy Living Services & Nursing Leadership Designate, Simcoe-Muskoka District Health Unit.
Senior Nurse Leader	Susan Kniahnichi, District of Algoma Health Unit
ANDSOOHA	Karen Quigley-Hobbs, Region of Waterloo Health Department
Ministry of Health Promotion & Sport	Janette Bowie, RN, Standards, Programs & Community Development
Ministry of Children & Youth Services	Nancy Novak, RN, Sr. Policy Analyst, Early Learning Child Development Branch
Working Group Secretariat	
Public Health Practice Branch	Nancy Peroff-Johnston, Sr. Nursing Consultant, and Joanna Kirton, Practicum Student
Nursing Secretariat	Sandra Oliver and Marsha Pinto, Senior Policy Analysts
RNAO	Sara Clemens, Nursing Policy Analyst

Appendix B: Recommended Public Health CNO Role and Requirements

The presence of a Chief Nursing Officer (CNO) in each health unit will enhance the health outcomes of the community at individual, group and population levels: through contributions to organizational strategic planning and decision making; by facilitating recruitment and retention of qualified, competent public health nursing staff; and enabling quality public health nursing practice. Furthermore, the CNO articulates, models and leads the way towards a vision of excellence in public health nursing practice, which facilitates evidence-based services and quality health outcomes in the public health context.

It is expected that the CNO role will be implemented at a senior management team level within the health unit reporting to the Medical Officer of Health (MOH) or Chief Executive Officer (CEO) and, in that context, contributes to organizational effectiveness.

Providing Nursing Practice Quality Assurance and Continuous Quality Improvement:

The Chief Nursing Officer:

1. Acts as the principal lead and resource for nursing practice and professional issues; oversees and has the authority to manage quality assurance and improvement activities related to nursing practice. Such activities include:
    - Leading or contributing to the resolution of issues respecting the quality of nursing practice for nurses employed by the organization and ensuring nursing practice requirements are met;
    - Leading and overseeing policy and procedure development for public health nursing practice;
    - Promoting and consulting on on-going evaluation of public health nursing practices, services and programs;
    - Fostering a culture of enquiry and innovation in public health nursing practices;
    - Providing leadership to the Nursing Practice Council;
    - Liaising with, and participating as an active member in nursing and public health organizations;
    - Facilitating the application of standards, best practice guidelines, legislation, regulations, competencies and trends of public health nursing practice (e.g., Ontario Public Health Standards, College of Nurses of Ontario and Canadian Community Health Nursing Standards of Practice, Public Health and Public Health Nursing Core Competencies,) towards quality public health practice; and,
    - Engaging and collaborating with the inter-professional teams on public health practice issues representing the nursing perspective and promoting inter-disciplinary public health practice.

Appendix B continued

2. Promotes nursing professional development and continuous learning of public health and related nursing knowledge by:
   - Facilitating planning for professional development, including securing and managing resources for training and education, and professional development resources and tools; and
   - Leading and overseeing knowledge exchange/translation, research, staff orientation, and mentoring.

Providing Nursing Leadership:

3. The Chief Nursing Officer represents public health nursing at the community, provincial and national level by:
   - Contributing the perspective of public health nursing to multi-sectoral planning groups, organizations and governmental committees within and beyond the public health sector;
   - Communicating nursing's contributions to and influencing the functions of public health (i.e., health protection, health surveillance, population health assessment, health promotion, illness and injury prevention, and emergency preparedness and response); and,
   - Communicating nursing's contributions to the health of individuals, communities and populations by addressing the social determinants of health.

4. Additionally, the CNO liaises with academic bodies and community partners to:
   - Coordinate and support quality student placements, orientation and learning in public and community health nursing practice;
   - Consult in the development of curriculum;
   - Develop inter-disciplinary and multi-disciplinary learning opportunities; and
   - Identify public health nursing research questions and foster academic/practice research partnerships.

Supporting Organizational Effectiveness:

5. The Chief Nursing Officer:
   - Advances a nursing perspective in support of, and to further, organizational effectiveness to meet the Ontario Public Health Standards and Public Health Organizational Standards through contributions to organizational strategic planning;
   - Promotes the full utilization of nursing capacity and practice competencies within a healthy work environment, which contributes to nursing job satisfaction; and,
   - Promotes professionalism by implementing and supporting evidence-informed leadership and professional practice standards.

Minimum Requirements:

1. Registered Nurse with the College of Nurses of Ontario;
2. Baccalaureate degree in nursing;
3. Graduate degree with a focus on public health or nursing, or a relevant academic equivalent[4], or be committed to obtaining such qualifications within 3 years of designation;
4. Minimum of 10 years nursing experience with progressive leadership responsibilities, including a significant level of experience in public health; and,
5. Member of appropriate professional organizations (e.g., RNAO, ANDSOOHA-PH Nursing Management; OPHA; etc.).

[4] For example, community health, health promotion, and health administration, etc.

References/ End Notes:

[1] Kirk, H. (2008). Nurse executive director effectiveness: A systematic review of the literature. *Journal of Nursing Management* 16: 374–381.
[2] Smith, S.L. (2009). H*The transition of chief nurse executives into chief executive officer and chief operating officer roles.*H A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in The University of Michigan. Last accessed: April 2011.
[3] Courtney, M., Yacopetti, J., James, C., Walsh, A. & Montgomery, M. (2002). Queensland public sector nurse executives: Professional development needs. *Australian Journal of Advanced Nursing* 19(3): 8-14.
[4] Burdett Trust for Nursing and The King's Fund. (2009). T*he nurse executives' handbook: Leading the business of caring from ward to board.*H Last accessed: April 2011.
[5] Burdett Trust for Nursing. (2006). *Who cares, wins: Leadership and the business of caring.* September. Last accessed: April 2011.
[6] Kleinmann, C.S. (2003). Leadership roles, competencies, and education: How prepared are our nurse managers? *JONA* 33(9): 451-455.
[7] Caroselli, C. (2010). Evolutionary emergent: Chief nurse executive as chief vision officer. *Nursing Science Quarterly* 23(1): 72-76.
[8] Filkins, J. (2003). Nurse Directors' jobs – A European perspective. *Journal of Nursing Management* 11: 44-47.
[9] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.
[10] Deschaine, J.E. & Schaffer, M.A. (2003). Strengthening the role of public health nurse leaders in policy development. *Policy, Politics, & Nursing Practice* 4(4): 266-274.
[11] The County of Los Angeles, Department of Health Services. (2005) Director of public health nursing (nursing director, administration). Examination No. Y-5296-H-Bulletin No. 2005-195-105:ER. Last accessed: April 2011.
[12] Hill, K.S. (2008). Leading change: The creativity of a public health nurse leader. *JONA* 38(11): 459-460.
[13] Courtney, M., Yacopetti, J., James, C. & Walsh, A. (2001). Queensland public sector nurse executives: Job satisfaction and career opportunities. *Australian Health Review* 24(2): 83-95.
[14] Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[15] Morjikian, R.L., Kimball, B., Joynt, J. (2007). The nurse executive's role in implementing new care delivery models. *JONA* 37(9):399-404.
[16] Jones, C.B., Havens, D.S. & Thompson, P.A. (2009). Chief nursing officer turnover and the crisis brewing. *JONA* 39(6): 285-292.
[17] Englebright, J. & Perlin, J. (2008). The chief nurse executive role in large healthcare systems. *Nurse Admin Q* 32(3): 188-194.
[18] Burdett Trust for Nursing and The King's Fund. (2009). The nurse executives' handbook: Leading the business of caring from ward to board. Last accessed: April 2011.
[19] Machell, S., Gough, P. & Steward, K. (2009). *From ward to board: Identifying good practice in the business of caring.* The King's Fund. Last accessed: April 2011.
[20] Burdett Trust for Nursing. (2006). *Who cares, wins: Leadership and the business of caring.* September. Last accessed: April 2011.
[21] Burdett Trust for Nursing and The King's Fund. (2009). The nurse executives' handbook: Leading the business of caring from ward to board. Last accessed: April 2011.
[22] Courtney, M., Yacopetti, J., James, C. & Walsh, A. (2001). Queensland public sector nurse executives: Job satisfaction and career opportunities. *Australian Health Review* 24(2): 83-95.
[23] Welsh Assembly Government. (2009). HA community nursing strategy for Wales. A consultation document. Last accessed: April 2011.
[24] American Nurses Association. (2000). *Scope and standards for nurse administrators* (3rd ed.). Washington, DC: American Nurses Publishing, as cited in Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[25] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.
[26] Courtney, M., Yacopetti, J., James, C., Walsh, A. & Montgomery, M. (2002). Queensland public sector nurse executives: Professional development needs. *Australian Journal of Advanced Nursing* 19(3): 8-14.
[27] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.

[28] Filkins, J. (2003). Nurse Directors' jobs – A European perspective. *Journal of Nursing Management* 11: 44-47.
[29] Cathcart, E.B. (2008). The role of the chief nursing officer in leading the practice. Lessons from the Benner Tradition. *Nurs Admin Q* 32(2): 87–91.
[30] Australian Bureau of Statistics. (2009). Unit group 1342 Health and welfare services managers. 1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1. Last accessed: April 2011.
[31] Burdett Trust for Nursing. (2006). *Who cares, wins: Leadership and the business of caring.* September. Last accessed: April 2011.
[32] Burdett Trust for Nursing and The King's Fund. (2009). The nurse executives' handbook: Leading the business of caring from ward to board. Last accessed: April 2011.
[33] Courtney, M., Yacopetti, J., James, C. & Walsh, A. (2001). Queensland public sector nurse executives: Job satisfaction and career opportunities. *Australian Health Review* 24(2): 83-95.
[34] Burdett Trust for Nursing and The King's Fund. (2009). The nurse executives' handbook: Leading the business of caring from ward to board. Last accessed: April 2011.
[35] Machell, S., Gough, P. & Steward, K. (2009). *From ward to board: Identifying good practice in the business of caring*. The King's Fund. Last accessed: April 2011.
[36] Burdett Trust for Nursing. (2006). *Who cares, wins: Leadership and the business of caring.* September. Last accessed: April 2011.
[37] Machell, S., Gough, P., Naylor, D., Nath, V., Steward, K., Williams, S. (2010). Putting quality first in the boardroom: Improving the business case of caring. The King's Fund and Burdett Trust for Nursing. Last accessed: April 2011.
[38] American Organization of Nurse Executives [AONE]. (2007). HAONE Guiding principles for the role of the nurse executive in patient safety. Last accessed: April 2011.
[39] Kleinmann, C.S. (2003). Leadership roles, competencies, and education: How prepared are our nurse managers? *JONA* 33(9): 451-455.
[40] Disch, J., Dreher, M., Davidson, P., Sinioris, M. & Wainio, J.A. (2011). The role of the Chief Nurse Officer in ensuring patient safety and quality. *JONA* 41(4): 179-185.
[41] American Nurses Association. (2000). *Scope and standards for nurse administrators* (3rd ed.). Washington, DC: American Nurses Publishing, as cited in Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[42] Burdett Trust for Nursing. (2006). *Who cares, wins: Leadership and the business of caring.* September. Last accessed: April 2011.
[43] Burdett Trust for Nursing and The King's Fund. (2009). The nurse executives' handbook: Leading the business of caring from ward to board. Last accessed: April 2011.
[44] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.
[45] Havens, D.S., Thompson, P.A., Jones, C.B. (2008). Chief nursing officer turnover: Chief nursing officers and healthcare recruiters tell their stories. *JONA* 38(12): 516-525.
[46] Caroselli, C. (2010). Evolutionary emergent: Chief nurse executive as chief vision officer. *Nursing Science Quarterly* 23(1): 72-76.
[47] Filkins, J. (2003). Nurse Directors' jobs – A European perspective. *Journal of Nursing Management* 11: 44-47.
[48] Courtney, M., Yacopetti, J., James, C., Walsh, A. & Montgomery, M. (2002). Queensland public sector nurse executives: Professional development needs. *Australian Journal of Advanced Nursing* 19(3): 8-14.
[49] Deschaine, J.E. & Schaffer, M.A. (2003). Strengthening the role of public health nurse leaders in policy development. *Policy, Politics, & Nursing Practice* 4(4): 266-274.
[50] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.
[51] Englebright, J. & Perlin, J. (2008). The chief nurse executive role in large healthcare systems. *Nurse Admin Q* 32(3): 188-194.
[52] Australian Bureau of Statistics. (2009). Unit group 1342 Health and welfare services managers. 1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1. Last accessed: April 2011.
[53] Welsh Assembly Government. (2009). HA community nursing strategy for Wales. A consultation document. Last accessed: April 2011.
[54] Scottish Executive. (2006). Delivering care, enabling health: Harnessing the nursing, midwifery and allied health professions' contribution to implementing *Delivering for Health* in Scotland. November. Last accessed: April 2011.
[55] American Nurses Association. (2000). *Scope and standards for nurse administrators* (3rd ed.). Washington, DC: American Nurses Publishing, as cited in Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.

[56] The County of Los Angeles, Department of Health Services. (2005) Director of public health nursing (nursing director, administration). Examination No. Y-5296-H-Bulletin No. 2005-195-105:ER. Last accessed: April 2011.
[57] Courtney, M., Yacopetti, J., James, C. & Walsh, A. (2001). Queensland public sector nurse executives: Job satisfaction and career opportunities. *Australian Health Review* 24(2): 83-95.
[58] Morjikian, R.L., Kimball, B., Joynt, J. (2007). The nurse executive's role in implementing new care delivery models. *JONA* 37(9):399-404.
[59] Filkins, J. (2003). Nurse Directors' jobs – A European perspective. *Journal of Nursing Management* 11: 44-47.
[60] Machell, S., Gough, P. & Steward, K. (2009). *From ward to board: Identifying good practice in the business of caring*. The King's Fund. Last accessed: April 2011.
[61] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.
[62] Courtney, M., Yacopetti, J., James, C. & Walsh, A. (2001). Queensland public sector nurse executives: Job satisfaction and career opportunities. *Australian Health Review* 24(2): 83-95.
[63] Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[64] Jones, C.B., Havens, D.S. & Thompson, P.A. (2009). Chief nursing officer turnover and the crisis brewing. *JONA* 39(6): 285-292.
[65] Brown, A. & Stevens, R. (2003). Public health nursing leadership, responsibilities and issues in state health departments: Results of an Association of State and Territorial Directors of Nursing (ASTDN) survey. Last accessed: April 2011.
[66] Courtney, M., Yacopetti, J., James, C. & Walsh, A. (2001). Queensland public sector nurse executives: Job satisfaction and career opportunities. *Australian Health Review* 24(2): 83-95.
[67] Jones, C.B., Havens, D.S. & Thompson, P.A. (2009). Chief nursing officer turnover and the crisis brewing. *JONA* 39(6): 285-292.
[68] Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[69] American Nurses Association. (2000). *Scope and standards for nurse administrators* (3rd ed.). Washington, DC: American Nurses Publishing, as cited in Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[70] American Nurses Association. (2000). *Scope and standards for nurse administrators* (3rd ed.). Washington, DC: American Nurses Publishing, as cited in Smith, S.L. (2009). The transition of chief nurse executives into chief executive officer and chief operating officer roles. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Nursing) in the University of Michigan.
[71] Clement-O'Brien, K., Polit D.F., & Fitzpatrick J.J. (2011). Innovativeness of nurse leaders. *Journal of Nursing Management* 19(4):431-8.
[72] Kleinman, C. S. (2004). Leadership: A key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing* 35(3):128-32.
[73] Kleinman, C. S. (2004). Leadership: A key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing* 35(3):128-32.
[74] Disch, J., Dreher, M., Davidson, P., Sinioris, M. & Wainio, J.A. (2011). The role of the chief nurse officer in ensuring patient safety and quality. *Journal of Nursing Administration* 41(4):179-85.
[75] Tomey, A.M. (2009). Nursing leadership and management effects work environments. *Journal of Nursing Management* 17(1):15-25.
[76] Wong, C.A., Laschinger, H., Cummings, G.G., Vincent, L. & O'Connor, P. (2010) Decisional involvement of senior nurse leaders in Canadian acute care hospitals. *Journal of Nursing Management* 18(2): 122-133.
[77] Matthews, S., Spence Laschinger, H.K., & Johnstone, L. (2006). Staff nurse empowerment in line and staff organizational structures for chief nurse executives. *Journal of Nursing Administration* 36(11):526-33.
[78] Upenieks, V.V. (2003). The interrelationship of organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. *Health Care Manager* (22)2: 83-98.
[79] Aiken, L.H., Sochalski, J., & Lake, E.T. (1997). Studying outcomes of organizational change in health services. *Medical Care* 35(11): NS6-NS18.
[80] Spence Laschinger, H. K. & Havens, D. S. (1997). The Effect of Workplace Empowerment on Staff Nurses' Occupational Mental Health and Work Effectiveness. *JONA* 27(6): 42-50.
[81] Kirk, H. (2008). Nurse executive director effectiveness: A systematic review of the literature. *Journal of Nursing Management* 16(3):374-81.

[82] Disch, J., Dreher, M., Davidson, P., Sinioris, M. & Wainio, J.A. (2011). The role of the chief nurse officer in ensuring patient safety and quality. *Journal of Nursing Administration* 41(4):179-85.
[83] Upenieks, V.V. (2003). The interrelationship of organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. *Health Care Manager* (22)2: 83-98.
[84] Germain, P.B. & Cummings, G.G. (2010). The influence of nursing leadership on nurse performance: A systematic literature review. *Journal of Nursing Management* 18(4):425-439.
[85] Wong, C.A., Laschinger, H., Cummings, G.G., Vincent, L. & O'Connor, P. (2010) Decisional involvement of senior nurse leaders in Canadian acute care hospitals. *Journal of Nursing Management* 18(2): 122-133.
[86] Disch, J., Dreher, M., Davidson, P., Sinioris, M. & Wainio, J.A. (2011). The role of the chief nurse officer in ensuring patient safety and quality. *Journal of Nursing Administration* 41(4):179-85.
[87] Upenieks, V.V. (2003). The interrelationship of organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. *Health Care Manager* (22)2: 83-98.
[88] Wong, C.A., Laschinger, H., Cummings, G.G., Vincent, L. & O'Connor, P. (2010) Decisional involvement of senior nurse leaders in Canadian acute care hospitals. *Journal of Nursing Management* 18(2): 122-133.
[89] Germain, P.B. & Cummings, G.G. (2010). The influence of nursing leadership on nurse performance: A systematic literature review. *Journal of Nursing Management* 18(4):425-439.
[90] Wong, C.A., Laschinger, H., Cummings, G.G., Vincent, L. & O'Connor, P. (2010) Decisional involvement of senior nurse leaders in Canadian acute care hospitals. *Journal of Nursing Management* 18(2): 122-133.
[91] Disch, J., Dreher, M., Davidson, P., Sinioris, M. & Wainio, J.A. (2011). The role of the chief nurse officer in ensuring patient safety and quality. *Journal of Nursing Administration* 41(4):179-85.
[92] Cummings G.G., Olson, K., Hayduk, L., Bakker, D., Fitch, M., Green, E., Butler, L. & Conlon, M. (2008). The relationship between nursing leadership and nurses' job satisfaction in Canadian oncology work environments. *Journal of Nursing Management* 16(5): 508-18.
[93] Kleinman, C. S. (2004). Leadership: A key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing* 35(3):128-32.
[94] Tomey, A.M. (2009). Nursing leadership and management effects work environments. *Journal of Nursing Management* 17(1):15-25.
[95] Kleinman, C. S. (2004). Leadership: A key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing* 35(3):128-32.
[96] Tomey, A.M. (2009). Nursing leadership and management effects work environments. *Journal of Nursing Management* 17(1):15-25.
[97] Cummings G.G., Olson, K., Hayduk, L., Bakker, D., Fitch, M., Green, E., Butler, L. & Conlon, M. (2008). The relationship between nursing leadership and nurses' job satisfaction in Canadian oncology work environments. *Journal of Nursing Management* 16(5): 508-18.
[98] Tomey, A.M. (2009). Nursing leadership and management effects work environments. *Journal of Nursing Management* 17(1):15-25.
[99] Upenieks, V.V. (2003). The interrelationship of organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. *Health Care Manager* (22)2: 83-98.
[100] Kleinman, C. S. (2004). Leadership: A key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing* 35(3):128-32.
[101] Upenieks, V.V. (2003). The interrelationship of organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. *Health Care Manager* (22)2: 83-98.
[102] Germain, P.B. & Cummings, G.G. (2010). The influence of nursing leadership on nurse performance: A systematic literature review. *Journal of Nursing Management* 18(4):425-439.
[103] Aiken, L.H., Smith, H.L., & Lake, E.T. (1994). Lower medicare mortality among a set of hospitals known for good nursing care. *Medical Care* 32(8):771-787.
[104] Spence Laschinger, H. K. & Havens, D. S. (1997). The Effect of Workplace Empowerment on Staff Nurses' Occupational Mental Health and Work Effectiveness. *JONA* 27(6): 42-50.
[105] Aiken, L.H., Smith, H.L., & Lake, E.T. (1994). Lower medicare mortality among a set of hospitals known for good nursing care. *Medical Care* 32(8):771-787.
[106] Germain, P.B. & Cummings, G.G. (2010). The influence of nursing leadership on nurse performance: A systematic literature review. *Journal of Nursing Management* 18(4):425-439.
[107]Wong, C.A. & Cummings G.C. (2007). The relationship between nursing leadership and patient outcomes: A systematic review. *Journal of Nursing Management* 15(5):508-21.
[108] Cummings G.G., Olson, K., Hayduk, L., Bakker, D., Fitch, M., Green, E., Butler, L. & Conlon, M. (2008). The relationship between nursing leadership and nurses' job satisfaction in Canadian oncology work environments. *Journal of Nursing Management* 16(5): 508-18.

[109] Gifford, W., Davies, B., Edwards, N., Griffin, P. & Lybanon V. (2007). Managerial leadership for nurses' use of research evidence: An integrative review of the literature. *Worldviews on Evidence-Based Nursing* 4(3):126-145.
[110] Gifford W.A., Davies, B., Edwards, N. & Graham, I.D. (2006). Leadership strategies to influence the use of clinical practice guidelines. *Nursing Research* 19(4):72-88.
[111] Angus, J., Hodnett, E. & O'Brien-Pallas, L. (2003). Implementing evidence-based nursing practice: A tale of two intrapartum nursing units. *Nursing Inquiry* 10(4): 218-228.
[112] Bleich, M.R., Cleary, B.L., Davis, K., Hatcher B.J., Hewlett P.O. & Hill, K.S. (2009). Mitigating knowledge loss. *JONA* 39(4): 160-164.
[113] Parahoo K. (2000). Barriers to, and facilitators of, research utilization among nurses in Northern Ireland. *Journal of Advanced Nursing* 31(1):89-98.
[114] Gifford, W., Davies, B., Edwards, N., Griffin, P. & Lybanon V. (2007). Managerial leadership for nurses' use of research evidence: An integrative review of the literature. *Worldviews on Evidence-Based Nursing* 4(3):126-145.
[115] Parahoo K. (2000). Barriers to, and facilitators of, research utilization among nurses in Northern Ireland. *Journal of Advanced Nursing* 31(1):89-98.
[116] Gifford W.A., Davies, B., Edwards, N. & Graham, I.D. (2006). Leadership strategies to influence the use of clinical practice guidelines. *Nursing Research* 19(4):72-88.
[117] Cummings G.G., Olson, K., Hayduk, L., Bakker, D., Fitch, M., Green, E., Butler, L. & Conlon, M. (2008). The relationship between nursing leadership and nurses' job satisfaction in Canadian oncology work environments. *Journal of Nursing Management* 16(5): 508-18.
[118] Bleich, M.R., Cleary, B.L., Davis, K., Hatcher B.J., Hewlett P.O. & Hill, K.S. (2009). Mitigating knowledge loss. *JONA* 39(4): 160-164.