



**Canadian Federation
of Nurses Unions**
THE NATIONAL VOICE FOR NURSES

Enhancement of Patient Safety through Formal Nurse-Patient Ratios: A Discussion Paper



Nurse-Patient Ratios:

A discussion paper

Table of Content

Letter from Linda Silas, R.N., BScN, President Canadian Federation of Nurses Unions	p. 4
Letter from Dr. Gail Tomblin Murphy Tomblin Murphy Consulting Incorporated	p. 5
Nurse-Patient Ratios and Patient Safety: A Review of the Literature Author: Gail Tomblin Murphy Tomblin Murphy Consulting Incorporated	p. 7
Report from the Stakeholders' Meeting: March 22, 2005 Author: Fran Hadley Hadley Health Administration Services Limited	p. 30
Nurses-Patient Ratio Workshop: Summary Report Author: Gail Tomblin Murphy Tomblin Murphy Consulting Incorporated	p.41
Advancing the Dialogue Author: Advisory Committee	p.49

Nurse-Patient Ratios:

A discussion paper



September 30, 2005

Dear Colleagues,

On behalf of the 130,000 members of the Canadian Federation of Nurses Unions (CFNU), I wish to thank and recognize Dr Gail Tomblin Murphy and her team (Victor Maddalena, PhD, Halifax, Patricia Wejr, British Columbia Nurses' Union, Larry LeMoal, Saskatchewan Union of Nurses, Valerie MacDonald, Ontario Nurses' Association, and Susan Hicks, Office of Nursing Policy) for their hard work and dedication to this project.

Since the late 1990's efforts have been made to develop a pan-Canadian strategy for nursing. Unprecedented interest in health human resources has emerged, and from the outset, it was agreed that quality of nursing work life demanded immediate attention.

Through the Office of Nursing Policy, Health Canada has been in the forefront in development of a policy direction that would improve the quality of nursing work life, with initiatives such as Healthy Workplace. Together, nursing stakeholders have been striving for Canadian Health Human Resources Strategies that would include retention and recruitment strategies, and produce a stable and healthy nursing workforce.

As nursing organizations and bargaining agents for nurses, we need to explore how Nurse-Patient Ratios can be achieved within the context of providing positive outcomes for patients, nurses and health care agencies. What mechanism of control over workload exists or can be developed that both respects nurses' professional judgment and enables them to meet their professional standards of practice?

This project serves the Office of Nursing Policy and other stakeholders in nursing as a first Canadian discussion piece on Nurse-Patient Ratios and we wish to acknowledge Health Canada as funding partners.

The overall objective of the project was to examine what models to determine staffing levels exist currently in Canada and internationally (U.S. and Australia), and to learn the opinions of nursing stakeholders and of staff nurses. As you read, you will see that we have succeeded.

We have learned that Nurse-Patient Ratios are not intended to address the nursing shortage in a direct manner. Nurse-Patient Ratios serve as a tool for matching available nursing human resources and patient care requirements and are focused on attending to quality of care issues. But experience has also demonstrated that in some jurisdictions, the concept of safe ratios has served as retention and even recruitment strategies, i.e. Magnet Hospitals.

Some argue that adopting Nurse-Patient Ratios or nurse staffing plans provides a formalized mechanism that nurses and the general public can use to hold health organizations accountable for their decisions related to nurse staffing, patient safety and nurse well-being. Let's remember that legislation would not be required if health organizations voluntarily limit utilization of services to closely match available nursing human resources, or, at the very least, listened to nurses. But in most jurisdictions this has not been the case. In addition, there are other strategic investments that health organizations can make to improve retention and recruitment of nursing staff, and to improve the productivity of nurses and promote patient safety, such as full-time employment, continuing education, mentoring and Healthy Workplaces.

We all know there is a strong body of evidence to suggest that by achieving optimal nurse staffing levels that closely match the acuity level of patients, the quality of care is improved. Furthermore, achieving optimal nurse staffing levels also enhances the quality of worklife for nurses. This in the end this is really what matters and is CFNU's objective: Quality patient care balanced with healthy worklife.

Sincerely,

Linda Silas, RN, BScN
President

Canadian Federation of Nurses Unions

Nurse-Patient Ratios:

A discussion paper



Dear Reader:

In Canada, there is a renewed commitment to a coordinated, national approach to Health Human Resources (HHR) planning. The 2003 First Ministers' Accord on Health Care Renewal—with its explicit goal of providing timely access to quality health services for all Canadians—recognized that planning for the right number and mix of providers, when and where they are needed, is crucial. In the Accord, the federal government, provinces, and territories made a commitment to work together to improve HHR planning and management. At the same time nursing stakeholders have been working towards the development of a pan-Canadian health human resource strategy for the nursing profession to address issues related to recruitment and retention and the promotion of a stable and healthy workforce.

Nurses from across Canada are asking their leadership and bargaining agents to examine the feasibility of implementing formal Nurse-Patient Ratios as a strategy to address the ongoing problems of heavy workloads, workplace injuries, turnover, and burnout among the nurses. Mandatory Nurse-Patient Ratios are being viewed as an approach to promote patient safety by ensuring adequate nurse staffing levels. The National Executive Board of the Canadian Federation of Nurses Unions (CFNU) is involved in discussions with various nursing, healthcare, and governmental stakeholder groups to explore ways to improve patient safety and address ongoing labour issues in the nursing profession.

The CFNU's exploration of Nurse-Patient Ratios and patient safety is both critical and timely. Nurses are working with the Canadian public and other health care providers to offer meet the health needs of Canadians through team centered and innovative health care delivery models. Delivering care in an environment focussed on quality, safety, and evidence based decision making is a challenge. Nurses in this country remain committed to working with Canadians to achieve optimal health, system, and nurse outcomes.

I believe the key messages and recommendations offered in this report warrant careful consideration by all stakeholders as they provide a useful roadmap to determine whether Nurse-Patient Ratios can serve as an effective nurse staffing model in the Canadian context.

Key Messages from consultation with nurses:

- Respondents generally expressed the view that implementing Nurse-Patient Ratios would decrease workloads, assist with the retention and recruitment of nurses, contribute to improving the worklife and health of nurses, decrease stress levels and burnout of nurses and improve the quality of patient care.
- The minority viewpoint did not support Nurse-Patient Ratios and cited a lack of data and research documenting the effectiveness of mandatory minimum Nurse-Patient Ratios as a means to address patient safety and nurse well-being.
- While respondents were generally supportive of implementing mandatory minimum Nurse-Patient Ratios as a means to improving patient safety, it was acknowledged that there is a need to conduct more research on the effectiveness and long-term impact of implementing Nurse-Patient Ratios in various settings.
- Respondents readily identified the complexity of nursing practice and the challenges associated with delivering safe, effective patient care. Many respondents expressed the view that Nurse-Patient Ratios are just "numbers" and do not often reflect or consider the acuity of the patient and the skill and educational preparation of the nurse. The process to establish minimum Nurse-Patient Ratios will need to consider and incorporate a wide range of factors to ensure minimum Nurse-Patient Ratios lead to an improvement in patient safety and the well-being of nurses.
- Concern was expressed regarding the process to establish Nurse-Patient Ratios, in particular the role that professional nurses will play in the determination and monitoring of nurse-patient ratios. Furthermore, respondents expressed concern regarding the need to establish enforcement mechanisms to ensure employers comply with established Nurse-Patient Ratios.

Nurse-Patient Ratios:

A discussion paper



Recommendations:

1. Further examination, consultation and applied research in a Canadian context needs to be undertaken to determine whether Nurse-Patient Ratios would be an effective means to improve patient safety and improve the well-being of nurses.
2. That, following further consultation, a Nurse-Patient Ratio Pilot Project be initiated in an appropriate setting to test the use of mandatory Nurse-Patient Ratios as a staffing model.

In my view, actions stemming from these recommendations will be very strategic and will facilitate careful planning. There is a risk of moving forward too quickly without doing proper background research and possibly encountering opposition that could have been prevented. This is not "wait and see"...this is just effective planning. I believe that the experience of other jurisdictions outside of Canada suggests that implementing mandatory Nurse-Patient Ratios has been a contentious issue and while early indications suggest the model is achieving the desired goals, there is good reason to approach the evaluation of Nurse-Patient Ratios with a degree of caution.

If I can be of further assistance as CFNU and its affiliates considers the implementation of the recommendations please contact me.

Sincerely,

Dr. Gail Tomblin Murphy
Associate Professor
School of Nursing
and Department of Community Health and Epidemiology
Dalhousie University

Nurse-Patient Ratios:

A discussion paper



Nurse-Patient Ratios and Patient Safety: A Review of the Literature

Final Report

Tomblin Murphy Consulting Incorporated

Prepared for
The Canadian Federation of Nurses Unions
and
The Office of Nursing Policy, Health Canada

April 4, 2005

Nurse-Patient Ratios:

A discussion paper



Table of Contents

	Page
Introduction and Background.....	9
Nurse Staffing and Patient Safety.....	9
Dimensions of Nurse Staffing.....	10
Nursing Unit Related.....	10
Staff Related.....	10
Organization Related.....	11
The Experience of Canada and Other Jurisdictions.....	11
Canada.....	12
United States.....	13
Nurse Staffing Plans.....	13
Nurse-Patient Ratios.....	14
Australia.....	15
Pros and Cons of Nurse-Patient Ratios.....	17
Pros.....	17
Cons.....	18
Summary of Key Issues.....	28
Appendix One: American Nurses Association Principles of Nurse Staffing	
Appendix Two: Nurse Staffing Plans and Ratios	
Appendix Three: California's Nurse-Patient Ratios	
Appendix Four: Links to Nurse-Patient Ratio Legislation	
Appendix Five: Victoria State, Australia, Nurse-Patient Ratios	
Endnotes	

Nurse-Patient Ratios:

A discussion paper



1.0 Introduction and Background

Nursing stakeholders have been working towards the development of a pan-Canadian health human resource strategy for the nursing profession. This strategy will address issues related to recruitment and retention and the promotion of a stable and healthy workforce. In 2001 the Canadian Nursing Advisory Committee (CNAC) completed the report entitled, "Our Health, Our Future: Creating Healthy Workplaces for Canadian Nurses". One of the recommendations arising from this Report stated:

Nurse-Patient Ratios should be sufficient to meet the needs of patient and families, consistent with patient/client complexity and acuity, patient turnover and the qualification of and supports available to the nursing staff by June 2003 (p.36).

Nurses from across Canada are asking their leadership and bargaining agents to examine the feasibility of implementing formal Nurse-Patient Ratios as a strategy to address the ongoing problems of heavy workloads, workplace injuries, turnover, and burnout among the nurses. Moreover, mandatory Nurse-Patient Ratios are being viewed as an approach to promote patient safety by ensuring adequate nurse staffing levels. Based on the experience of other jurisdictions that have enacted legislation to mandate that health organizations adopt formal nurse-patient ratios, nurses in Canada are interested in knowing if a similar approach would be applicable in the Canadian context.

In the fall of 2004 the National Executive Board of the Canadian Federation of Nurses Unions (CFNU), in partnership with the Office of Nursing Policy, Health Canada initiated a discussion which resulted in a project to determine if formal, mandated, Nurse-Patient Ratios would enhance patient safety while at the same time respect professional nursing judgement.

This Report, entitled "**Nurse-Patient Ratios and Patient Safety: A Review of the Literature**", represents the first phase of the project. The Report consists of a literature review of published and unpublished reports from government, the academic community and professional organizations from Canada and abroad. This Report examines the various definitions and dimensions (pros and cons) of Nurse-Patient Ratios as a staffing policy and reviews the experiences of other jurisdictions, in particular California in the United States and the State of Victoria in Australia.

The second phase of the project will consist of a consultation session with stakeholders from the nursing profession including the Office of Nursing Policy, the Canadian Healthcare Association, the Canadian Council of Practical Nurse Regulators, the Registered Psychiatric Nurses of Canada, the Canadian Association of Schools of Nursing, nursing researcher community, the Canadian Nurses Association, Provincial Nursing Officers and the Canadian Federation of Nurses Unions. The goals of this consultation session will be to explore existing knowledge, share viewpoints on the benefits and drawbacks of Nurse-Patient Ratios, and to determine next steps.

This report is limited to an examination of nurse staffing from the perspective of Registered Nurses. It is acknowledged that the issue of nurse staffing in health organizations generally takes into consideration the presence of other non-RN care providers such as Licensed Practical Nurses, Registered Psychiatric Nurses, Personal Care Workers, etc. as appropriate.

2.0 Nurse Staffing and Patient Safety

There have been several extensive studies that have summarized the available research on the impact of nurse staffing levels on patient outcomes, quality of care and patient safety, as well as the health of nurses^{1 2 3 4 5}. There is strong empirical evidence that documents the link between inadequate nurse staffing and a wide range of adverse patient outcomes including, pressure ulcers, urinary tract infections⁶, pneumonia⁷, postoperative wound infections, medication errors, pulmonary compromise, thrombosis, pain management, upper gastrointestinal bleeding, falls⁸, shock or cardiac arrest⁹, failure to resuscitate¹⁰, readmission, and patient satisfaction, among other adverse occurrences^{11 12 13 14 15 16}. Conversely, it has been demonstrated that there is a reduction in adverse events when nurse staffing levels are appropriate for the level of patient care required^{17 18}.

Nurse-Patient Ratios:

A discussion paper



Linda McGillis Hall conducted an extensive review of the research literature examining the relationship between nurse staffing levels and the well-being of nurses¹⁹. McGillis Hall identified several research studies that documented the relationship between nurse staffing levels and a range of nursing outcomes including job satisfaction, job stress, job pressure, job threat, burnout, workplace injuries (e.g. back injuries and needlestick injuries), and role tension^{20 21}. In general, these studies found that in settings where there were inadequate nurse staffing levels and limited organizational support, nursing staff were at a higher risk of experiencing burnout, job dissatisfaction and workplace injuries^{22 23 24 25}. While these studies were able to determine that there was a link between nursing staffing levels and the well-being of nurses, further study is warranted to determine the impact of other factors in the work environment that may also impact on the well-being of nurses including for example, nursing staff's relationship with management, organizational culture, the interrelationship among nurses and other professional staff and level of autonomy^{26 27}.

It is widely recognized that the well-being of nursing staff plays an important role in their ability to provide quality nursing care²⁸. In organizations where there are higher rates of nurses experiencing job dissatisfaction, burnout, and high workloads the impact on patient care is noteworthy. Furthermore, it has been documented that institutions that experience high rates of turnover (as a result of job dissatisfaction) have higher costs per discharge, increased lengths of patient stays, and higher rates of undesirable outcomes and sentinel events²⁹.

3.0 Dimensions of Nurse Staffing

The American Nurses Association and the Canadian Nurses Association identify three factors that significantly influence nurse staffing including characteristics of the unit where nursing care is delivered and the organization within which the nursing unit is situated, the skills, experience and preparation of the nurse, and characteristics of the patient^{30 31}. It is clear that when describing nurse staffing the concept of a one-size-fits-all approach is not appropriate and many factors need to be considered including for example, factors related to the nursing unit where care is delivered, characteristics of staff providing the care (including the autonomous role and decision-making role that the directed care RN assumes pertaining to staffing and workload decisions) and factors related to the organization.

3.1 Nursing Unit Related

The American Nurses Association recognizes that the nursing care unit plays a significant role in determining appropriate nurse staffing levels. For example, the ANA states that many factors influence the requirements for nurse staffing on a nursing unit including, for example, the number and acuity level of patients; the location and context of the unit in the larger organization, available technology, and level of preparation and experience of nursing and ancillary staff providing care³². Furthermore, the ANA Principles state that appropriate staffing levels for a patient care unit must take into consideration individual and aggregate patient care needs and must consider for example, age and functional ability, cultural and linguistic diversities, severity and urgency of admitting condition, scheduled procedure(s), ability to meet health care requisites, availability of social supports, and other specific needs identified by the patient and by the registered nurse³³. The model of nursing care delivery also plays an important role in determining nurse staffing.

3.2 Staff Related

It is a mistake to assume that all nurses are alike. While a graduating nurse enters the field with the minimum skill set necessary to prepare them for nursing practice, they continue to grow and develop their skills over their professional career. The ANA Principles for Nurse Staffing suggest that the following nurse characteristics should be taken into account when determining staffing levels: experience with the type of patient being served, level of experience (novice to expert), education and preparation (including certification, language capabilities, tenure on the unit, level of control of practice environment, degree of involvement in quality initiatives, participation in nursing research), and competencies of clinical and non-clinical support staff the nurse must collaborate with and/or supervise³⁴.

Nurse-Patient Ratios:

A discussion paper



3.3 Organization Related

Health organizations should develop policies that demonstrate an appreciation for the value of registered nurses as strategic assets and personnel policies should reflect the agency's concern for employees' needs and interests³⁵. The organization needs to consider the many factors when determining nurse staffing including, for example, appropriate ancillary support services (for example, housekeeping, laundry, laboratory), the presence of non-RN nursing care providers, access to timely and relevant information, appropriate orientation and continuing education for staff (including preparation specific to technology used in providing patient care)³⁶. Furthermore, organizations need to allocate time for nurses to collaborate with and supervise other staff, provide support in ethical decision-making, provide sufficient opportunity for care coordination and arranging for continuity of care and patient/family education. Organizations should also be attentive to designing processes that facilitate transition during periods of work redesign, mergers and other major changes in work life, the right for staff to report unsafe conditions or inappropriate staffing without personal consequence and, a logical method for determining staffing levels and skill mix³⁷.

In a study examining evidence-based standards for measuring nurse staffing and performance by O'Brien-Pallas it was determined, 1) nursing unit productivity/utilization levels should target 85%; 2) levels higher than 85% lead to higher costs for poorer patient care, and poorer nurse outcomes; 3) maximum productivity/utilization is 93%; 4) units where nurses frequently work at or beyond maximum productivity/utilization must urgently reduce productivity/utilization and implement acceptable standards; and 5) productivity/utilization targets can be met by enhancing nurse autonomy, reducing emotional exhaustion, and having enough staff to cope with rapidly changing patient conditions³⁸.

It was further determined by O'Brien-Pallas that organizational factors related to improvement in the quality of care could be achieved by "1) hiring experienced, full-time, baccalaureate-prepared nurses; 2) staffing enough nurses to meet workload demands; and 3) creating work environments that foster nurses' mental and physical health, safety, security, and satisfaction."³⁹ Furthermore, O'Brien-Pallas found that, "Patient care is improved when units are staffed with degree-prepared nurses and when nurses can work to their full scope of practice. This not only improves job satisfaction, but nurses are also less likely to leave their jobs"⁴⁰.

4.0 The Experience of Canada and Other Jurisdictions

The nursing shortage is a global phenomenon that is impacting health systems in most developed countries. Nurses represent the largest group of health care professionals and the shortage of nursing personnel is having a direct impact on the health and worklife of nurses and on patient safety. Restructuring of the health system, increasing workloads, cut-backs in staffing, financial pressures and increased demand for health services further exacerbate the effects of nursing human resource shortages^{41 42 43 44}. Many nurses choose to leave the profession because they are unable to reconcile accepting larger patient case-loads and still maintain their own health and ensure the patient's safety. Market forces are often not adequate to ensure patient safety and quality of care⁴⁵. As a result nursing organizations have chosen to seek protection in legislation, or collective agreements to ensure adequate nurse staffing in the form of Nurse Staffing Plans or Nurse-Patient Ratios.

Any discussion on Nurse Staffing Plans or Nurse-Patient Ratios would not be complete without recognizing the important role that workload measurement tools play in determining appropriate staffing. There are various models and tools available to determine nursing workload and productivity. Each has the objective of documenting the complex relationship that exists between the nurse and the patient, specifically, the "amount and type (i.e. direct and indirect) of nursing resources needed to care for an individual patient"⁴⁶. O'Brien-Pallas et al. state that, "Any workload system developed should involve multiple measures that capture the complexity of patient conditions, the decision that providers make, environmental complexity, as well as the factors that influence processes and patient, nurse and system outcomes."⁴⁷

Nurse-Patient Ratios:

A discussion paper



The value of nursing workload and nurse productivity measures are limited by the accuracy and sensitivity of the tool employed, "...the soundness of the analytic process used in understanding their relevance to the nursing work environment"⁴⁸, and the degree to which the results of the data provided are acted upon. In most jurisdictions in Canada, in the absence of mandated staffing plans or nurse-patient ratios, workload measurement systems (WMS) play a key role in determining appropriate staffing levels (where WMS exist). Nursing workload measurement tools, including acuity-based classification measures have also played a role in determining nurse-staffing plans and minimum Nurse-Patient Ratios in the U.S. and Australia.

4.1 Canada

Every province and territory in Canada is experiencing the effects of the nursing shortage. Most jurisdictions are either contemplating the merits of, or have promoted the implementation of formalized Nurse-Patient Ratios as a means to address patient safety and quality of care issues. To date there is no jurisdiction in Canada that has formally legislated Nurse-Patient Ratios or nurse staffing plans as a requirement for acute care hospitals. The United Nurses of Alberta, in 2003, attempted to include mandatory minimum Nurse-Patient Ratios during the collective bargaining process, but the employers rejected this proposal⁴⁹. Recently in Ontario, Nurse-Patient Ratios have been discussed at the bargaining table and employers have resisted the concept.⁵⁰

In June 2003 the Canadian Nurses Association, representing Registered Nurses, issued a Position Statement entitled, "Staffing Decisions for the Delivery of Safe Nursing Care"⁵¹. Compliance with these principles is not required by legislation and there is no means to ensure adherence and accountability. This Position Statement articulates the position that, "...decision-making related to the delivery of safe nursing care, across the continuum of health care setting must be based on the following key principles and criteria:

1. Decision-making is based on having the appropriate number of positions and the competencies required to ensure safe, competent and ethical care.
2. Nurse administrators and managers (including supervisors, middle and senior managers) are responsible for ensuring appropriate staff mix (The combination and number of regulated and unregulated persons providing direct and indirect nursing care to clients in settings where registered nurses practice).
3. Legislative, professional and organizational parameters are respected.
4. The safety of clients must never "be compromised by substituting less qualified workers when the competencies of a Registered Nurse are required.
5. The staffing decision-making process recognizes the unique and shared competencies of each care provider group.
6. Responsibility and accountability of care providers are clear.
7. RNs at all levels in the organization are involved in decision-making that affects nursing practice, client care and the work environment.
8. Staffing decisions are evidence-based.
9. Organizations and other stakeholders, including RNs, ensure that the elements necessary for a quality professional practice environment are in place.
10. RNs are leaders in implementing collaborative practice and promoting effective communication among all members of the health care team.⁵²

The CNA's Position Statement further requires that staffing plans consider the unique characteristics of the client, the care provider's competencies and unique features of the practice environment. Input from nurses, including nurse in direct care, in the decision-making process is a central theme of the CNA position statement.

Nurse-Patient Ratios:

A discussion paper



In 2004, representatives from the Canadian Nurses Association (CNA), the Canadian Practical Nurses Association (CPNA), and the Canadian Council of Practical Nurse Regulators (CCPNR), and Registered Psychiatric Nurses of Canada, other nursing stakeholder groups established an evaluation framework to assist in the development of appropriate nursing staff mix plans.⁵³

The principles guiding this framework for evaluating the impact of nursing staff mix decisions include the following:

1. Client, nurse and system outcomes are central to the evaluation of nursing staff mix decisions.
2. Evaluation of the impact of nursing staff mix decisions is complex and requires a systematic and comprehensive approach using all of the components of this framework.
3. This evaluation framework recognizes and respects the value and contribution of each regulated nursing group.
4. This evaluation framework applies to all sectors and client populations.⁵⁴

It is important to note that in most jurisdictions in Canada nurse staffing has historically been, and continues to be, determined in an ad hoc manner. Nurse managers and staff nurses apply expert judgement when considering available resources and patient needs and determine the most effective nurse-patient staffing plans. Where available they also utilize data from workload measurement systems, nurse productivity and management information systems in the decision-making process.

4.2 United States

Two approaches have been adopted in the United States to legislate appropriate nursing staffing, in particular, Nurse Staffing Plans and Nurse-Patient Ratios. Each will be discussed in turn.

4.2.1 Nurse Staffing Plans⁵⁵

The American Nurses Association has promoted the adoption of legislation that mandates hospitals to develop and implement Nurse Staffing Plans. These plans are based upon ANA's Principles for Nurse Staffing⁵⁶ (See Appendix One: American Nurses Association Principles for Nurse Staffing). These principles are similar to the Canadian Nurses Association Position Statement on Staffing Decisions for the Delivery of Safe Nursing Care. The Principles are intended to facilitate the development of appropriate Nurse Staffing Plans that are flexible and take into account unique features of the organization, technology, staffing skills and mix, and patient acuity. Nurses play an important part in the development and decision-making process of each Nurse Staffing Plan.⁵⁷

*In 2004, Florida, Hawaii, Illinois, Massachusetts, Rhode Island and Washington states introduced legislation that would require health care facilities to develop nurse staffing plans. The bills contain a variety of components such as requiring: nurse administrators to adopt and implement a staffing plan with input from direct care registered nurses; the numbers of nursing staff responsible for patient care to be posted daily; the adequacy of the staffing plan be evaluated through the collection of patient quality outcomes; ANA's Principles for Nurse Staffing to serve as a basis for development of a staffing plan; and civil penalties to be used for enforcement purposes.*⁵⁸

The Nurse Staffing Plans are organization-specific and incorporate many factors that reflect the unique circumstances of the organization, including physical layout, available technology, the presence of ancillary personnel, the competencies and skill levels of individual nurses and the type of patient and acuity level. The objectives of Nurse Staffing Plans are to ensure congruency among available nurse staffing, projected patient workload and organizational features. Nurse staffing plans include non-RN auxiliary nursing staff.

A map outlining the States where Nurse Staffing Plans and Nurse-Patient Ratios have either been implemented or are being considered can be found in Appendix Two: Nurse Staffing Plans and Ratios.

Nurse-Patient Ratios:

A discussion paper



4.2.2 Nurse-Patient Ratios

California is the only state that has legislated nurse-patient ratios. Research indicates that at least 14 states are considering nurse-patient ratio legislation. In Connecticut and Illinois Nurse-Patient Ratios are established through regulations. The States of New York, Michigan, Minnesota and Hawaii have been successful in negotiating Nurse-Patient Ratios through the collective bargaining process.⁵⁹ It is noteworthy that there is variation among the various jurisdictions in terms of minimum nurse-patient ratios.

In the 1980s and early 1990s the State of California was experiencing significant challenges in their acute care system, particularly in the areas of shortages of nurses, increasing workloads and increasing patient acuity. In 1992, in an attempt to seek legal recourse to address the deteriorating nursing human resource situation the California Nurses Association sponsored Assembly Bill 1445. This initiative represented the first attempt to legislate Nurse-Patient Ratios for acute care hospitals in the United States. After several failed attempts to implement Nurse-Patient Ratios legislation, the California Nurses Association in 1999 sponsored Assembly Bill 394. To support this Bill the California Nurses Association mobilized mass rallies and obtained over 14,000 letters of support that were delivered to legislators and the governor of California. On October 10, 1999 Governor Gray Davis signed Bill AB394 and California became the first U.S. State to legislate minimum Nurse-Patient Ratios.^{60 61}

In 2000 the Governor of California requested that the California Department of Health Services initiate a process to develop regulations to support the Nurse-Patient Ratio legislation. The California Nurses Association established an expert panel comprised of 25 RNs to develop their own proposal for acceptable Nurse-Patient Ratios. The expert panel conducted a statistical analysis of over 21 million patient records and considered such factors as Diagnostic Related Groupings and patient acuity⁶². During 2001 the California Nurses Association conducted 21 Town Hall Meetings across the state and in September RNs, consumers, physicians attended hearings to provide testimony to advocate for safe nurse-patient ratios.⁶³

In 2003 final regulations were approved and effective January 1, 2004 all hospitals were required to comply with the new ratios or face financial penalty, termination or suspension of their license, fines or private right of action suits.⁶⁴ The State of California Nurse-Patient Ratio legislation requires that all hospitals comply with the following requirements:⁶⁵

RN Ratio	No RN can be assigned responsibility for more patients than the specific ratio at any time, under any circumstances, based on patient acuity and scope of practice laws. Ancillary nursing personnel can not be assigned responsibility for a patient.
Department of Health Services Establish Minimum N-P Ratios	Once the Department of Health Services minimum ratios are in place, additional staffing must be assigned based on patient acuity.
No Averaging	The ratios are the maximum number of patient assigned to any one RN at all times during a shift.
Break Coverage	A competent charge nurse, RN manager or break RN must relieve an RN during their breaks.

The Nurse-Patient Ratios that are mandated by law for acute care hospitals in California are outlined in Appendix Three - California Nurse-Patient Ratios.⁶⁶

Nurse-Patient Ratios:

A discussion paper



Needless to say, the adoption of Nurse-Patient Ratios did not proceed without opposition. Several organizations representing the hospital industry openly contested the merits of the Bill in the media and the political arena. Legal challenges to the bill have to date been unsuccessful. One of the more prominent groups that lobbied against Bill AB 394 was the California Hospital Association. The Association argued that forcing health organizations to adopt inflexible nurse patient ratios was impractical, cost inefficient and not necessary^{67 68}. It has been argued that the imposition of formal Nurse-Patient Ratios, and a lack of qualified staff to fill vacancies to ensure compliance with the Nurse-Patient Ratios has led to service reduction, cancellation of elective procedures, increased wait times in emergency rooms, increased risk of liability for hospitals, and hospital closures.⁶⁹ Planned modifications to the Nurse-Patient Ratios set to take effect in 2005 continue to be debated.

Advocates in favour of mandated minimum Nurse-Patient Ratios cite an extensive literature that documents the link between appropriate nurse staffing and patient safety and the well-being of nurses (See Section 2.0 above). While circumstantial and anecdotal evidence suggests that the foray into Nurse-Patient Ratios has been a success, the Nurse-Patient Ratio policy initiative in California has not been subjected to formal empirical analysis and evaluation.

It is important to acknowledge that legislated standards for nurse staffing usually specify minimum requirements, which can be adjusted upwards depending on patient requirements. Further information on specific legislation can be obtained in Appendix Four - Links to Nurse-Patient Ratio Legislation.

4.3 Australia

Prior to implementing legislated Nurse-Patient Ratios there was a chronic shortage of nurses in public hospitals in Victoria, Australia. Hospital administrators addressed the shortage by implementing bed closures, lengthening hospital waiting lists, and establishing policies that required existing nurses to work overtime and double shifts and facilities employed unqualified nurses to perform RN nursing duties.⁷⁰ Nurses were experiencing burnout and many were leaving hospital-based nursing practice. Nursing human resource data from the State Government revealed that there were approximately 20,000 Registered Nurses that could be working in the public hospital system, but chose to either leave nursing practice, or work in non-hospital settings. "On any given day there were up to 400 beds closed across Victoria because there were not enough nurses to keep them open."⁷¹ The Australian Nurses Federation (ANF) (Victorian Branch) maintained that the only way to address the present crisis was to provide nurses with adequate resources to enable them to provide quality patient care.

The ANF's efforts to convince the government of the severity of the nursing crisis failed, and in early 1999 the ANF sponsored two surveys that documented the extent and nature of the problems facing nurses. The Nursing Workforce Survey was conducted in concert with the Australian College of Nurse Management and the Victorian Deans of Nursing. The purpose of the survey was to determine the extent and impact of the existing nursing shortage. The findings of the survey revealed the following:

1. Almost 60% of acute and aged care facilities were experiencing nursing vacancies.
2. Over 30% of acute care facilities surveyed had vacancies for qualified nurses in Critical Care, Operating Room, and medical /Surgical units.
3. Over 20% of facilities had vacancies for mid-wives.
4. In the aged care sector, almost 60% of services surveyed were employing unqualified staff to fill their vacancies.⁷²

Nurse-Patient Ratios:

A discussion paper



The second survey sponsored by the ANF was the Work-Time-Life Survey. This purpose of this survey was to determine the impact the nursing shortage was having on nurse's work lives and how it affected their ability to provide patient care. The survey clearly demonstrated that the high numbers of nursing vacancies was having a serious impact on the personal and professional lives of nurses. The survey also confirmed that nurses were experiencing severe workload problems as a direct result of inadequate nurse-patient ratios, inadequate skill mix and chronic reliance on temporary staff to fill vacancies. Key findings from the Work-Time-Life Survey included:

1. 60% of nurses experienced constant workload problems.
2. 83.3% of nurses were concerned about the proportion of agency staff because they believed agency staff were less efficient and increased their workload.
3. 87% of nurses experienced stress.
4. 49% attributed this stress to inadequate nurse/patient ratios and an inappropriate proportion of graduates and agency staff.
5. 33.5% of nurses were dissatisfied with the balance between their working life and their family life and 49.7 % were dissatisfied with their ability to pursue social and community interests.⁷³

In 2000 the Victorian Branch of the Australian Nurses Federation was in the process of negotiating a new collective agreement with public hospitals. As part of the bargaining process the ANF proposed over 100 recommendations, including the implementation of Nurse-Patient Ratios as a means of maintaining safe and appropriate staffing levels. The ANF's proposal had four main objectives:

1. Mandatory nurse to patient ratios to allow nurses to control their workloads and provide safe, quality nursing care;.
2. Essential professional development so nurses could keep up to date with the best nursing care and be recognised for doing so;
3. A fully developed career structure so that experienced nurses with extensive nursing expertise could remain in the Victorian health system;
4. Wage parity with other health professionals.⁷⁴

The employers (public hospitals) resisted this initiative but the ANF was not prepared to compromise on their nurse-patient ratio proposal. They backed their commitment to the Nurse-Patient Ratios by threatening to strike. In response to the proposed implementation of the Nurse-Patient Ratios the Victorian government requested the Australian Industrial Relations Commission (AIRC) review the decision through an arbitration process. Following extensive hearings, the AIRC ruled in favour of the Nursing Federation and mandated the implementation of Nurse-Patient Ratios effective December 1, 2000.

The Australian government allocated approximately \$7 million (AUS) to implement the agreement. These monies were also intended to support recruitment and retention strategies (for example, increases in salaries, educational leave, increased shift differentials, improved maternity leave provisions and overtime pay).

In 2001 Victoria formally implemented mandatory minimum Nurse-Patient Ratios in all public sector facilities. The minimum ratios vary to meet the needs of different units and shifts. Healthcare institutions are categorized into different levels according to acuity of care, size and location. Minimum Nurse-Patient Ratios have been established for public hospitals in Victoria (See Appendix Five: Victoria State, Australia, Nurse-Patient Ratios).

The Nurse-Patient Ratio policy initiative in Victoria has not been subjected to formal empirical analysis and evaluation. Anecdotal evidence suggests that there has been a reduction in staff turnover, increased recruitment of hospital-based nurses, reductions in sick time, decreased reliance on "agency nurses", a decline in workplace injuries, and improvements in staff morale^{75 76}. Future evaluative studies are planned.

Nurse-Patient Ratios:

A discussion paper



In 2003 the Australian Federation of Nurses commissioned a study to examine the quality of worklife of nurses in Victoria State in Australia. The researchers examined the impact of Nurse-Patient Ratios and their findings on this issue can be summarized as follows:

The ratios have stabilized a deteriorating situation. They have not been applied rigidly or inflexibly. Their implementation and impact have been uneven. This reflects the context of the Victorian public health system: one of chronic nurse shortages and continual change. Their introduction has, however, been associated with important improvements for patients and nurses. Over 90 per cent of respondents reported that they are essential for the effective management of workloads. Their removal would undermine patient care and working conditions. It would also precipitate a major withdrawal of nursing labour from the system. Resignations from nursing, more early retirements or cutbacks in hours worked in nursing would be the most likely response from over half (52.6 per cent) of respondents to their removal. Few nurses in the Victorian public health system, it seems, trust management to get the issue of shift staffing levels correct. In short, ANF members in Victorian public health clearly feel the ratios are essential for an effective long run solution for the system's problems. Their removal would make the situation even worse by triggering a greater number of working nurses to leave the system.⁷⁷

Building on the success of the Victorian Branch, the ANF (Western Australian Branch) has also implemented nurse-patient ratios.⁷⁹ The Northern Territory and Queensland branches are also pursuing nurse-patient ratios. A settlement bargained by the New Zealand Nurses Organization and ratified in February 2005 included a provision for an independently chaired inquiry to investigate and make recommendations on safe staffing levels and establishing a process to ensure compliance.

5.0 Pros and Cons of Nurse-Patient Ratios

5.1 Pros

1. It has been documented that inadequate nurse staffing levels contribute to adverse patient events. It has also been documented that organizations that increase the nurse-to-patient ratio (either voluntarily or by meeting the requirements of legislation, regulations or collective agreements) have seen an improvement in the quality of care delivered to patients and improvements in the well-being of nurses using various measures (See Section 2.0 Nurse Staffing and Patient Safety above).
2. If the positive trends in recruitment and retention that have been seen in Victoria and California persist, the implementation of Nurse-Patient Ratios may serve as a valuable recruitment and retention tool as the global nursing shortage progresses.
3. It has been the experience in the State of Victoria, Australia and the State of California that when legislation was enacted requiring mandatory compliance with established Nurse-Patient Ratios there was an increase in the numbers of nurses recruited to work in those areas, decreased staff turnover and absenteeism, and an increase in the number of candidates entering nursing schools. Mandated Nurse-Patient Ratios serve as an alternative to the ad hoc manner that is currently used in most jurisdictions to determine nurse staffing. Anecdotal evidence suggests there has also been an increased ability to provide services to the public, higher morale among nursing staff, increased confidence in the public hospital system, decreased dependence on nursing agencies (temporary nurses), a decline in workplace injuries for nurses, increased job satisfaction, and reduced stress.^{80 81 82 83}
4. Mandated Nurse-Patient Ratios have provisions for enforcement that are not present in voluntary staffing plans.

Nurse-Patient Ratios:

A discussion paper



5.2 Cons

1. Ratios do not often accurately reflect needs of people and the complexity of care required. In short, nurse patient ratios serve as a blunt measure for staffing requirements. Nurse-Patient Ratios use "occupied beds" as a proxy measure for patient demand and this provides limited information regarding the care requirements of the patients in those beds.⁸⁴ Furthermore, Nurse-Patient Ratios do not account for varying skill levels and educational preparation of nursing staff. "Although nurse staffing ratios can be calculated at both the nursing unit and hospital levels, hospital level ratios are often confounded by the inclusion of nursing staff that do not provide direct patient care"⁸⁵ This can vary depending on the type of nursing unit.
2. Nurse-Patient Ratios do not generally account for changes in acuity level of patients (changes in work patterns for example, day shift vs. night shift), layout of nursing unit, presence of ancillary personnel, non-RN care providers, presence of available technology, etc. It should be noted that mandated Nurse-Patient Ratios are generally described as minimum Nurse-Patient Ratios, implying that additional staff can be added as patient care requirements demand.
3. While it is generally acknowledged that staffing levels impacts directly on the quality of care, there is little empirical evidence to support specific, minimum Nurse-Patient Ratios for acute care hospitals.⁸⁶
4. "Even though staffing and skill mix variables are frequently adjusted for case mix and patient complexity, if these measures focus on the occupied bed or the capacity of the average nurse as opposed to the unique characteristics of patients and nurses, the outcomes of care and the nursing work environment, the empirical research base for planning of nursing resources will be limited. Most studies to date are cross sectional descriptive studies that do not test staffing interventions within the context of pre-and post-measurement. Studies of this nature are needed to provide answers to these complex questions."⁸⁷

6.0 Summary of Key Issues

In Victoria, Australia and California in the United States, Nurse-Patient Ratios were proposed and implemented as a direct response to a deteriorating nursing human resource situation and concern for patient safety. The nursing shortage and increasing demands for health services led to circumstances where health organizations were not adequately responding to situations where available nursing human resources were being overextended and patient safety (and nurse's health) was being compromised. The deteriorating nursing situation created a cyclical pattern where nursing shortages led to poor working conditions, rapid turnover of staff and lack of success in recruitment efforts and this in turn led to an exacerbation of the nursing shortage. Nurse-Patient Ratios are not intended to address the nursing shortage in a direct manner. Nurse-patient Ratios serve as a tool for matching available nursing human resources and patient care requirements and are focused on attending to quality of care issues.

Nursing unions have been attempting to negotiate provisions to improve Nurse-Patient Ratios for decades, well before the nursing shortage existed. It is a point of contention in the literature whether Nurse-Patient Ratios would have been implemented if there was an adequate supply of nurses. Literature from jurisdictions that have implemented legislated Nurse-Patient Ratios cite the nursing shortage, deteriorating working conditions and compromised patient safety as the key factors motivating the push to implement nurse-patient ratio legislation.

Many health organizations voluntarily supported the policy of standardized Nurse-Patient Ratios and saw this as a means to promote quality patient care and improve market share by guaranteeing minimum nurse-patient ratios. For example, in the United States the American Nurses Credentialing Center (ANCC) awards the designation of "Magnet Hospital" to those organizations that achieve a high standard of nursing excellence and adhere to national standards for improving the quality of patient care services.⁸⁸ Typically Magnet Hospitals do not experience the same degree of nursing shortage or quality of care issues as those organizations that are not certified under the ANCC certification program because they adhere to more progressive nurse staffing policies.

Nurse-Patient Ratios:

A discussion paper



Some argue that adopting Nurse-Patient Ratios or Nurse Staffing Plans provides a formalized mechanism that nurses and the general public can use to hold health organizations accountable for their decisions related to nurse staffing, patient safety and nurse well-being. Legislation would not be required if health organizations voluntarily limit utilization of services to closely match available nursing human resources, but in most jurisdictions this has not been the case. In addition, there are other strategic investments that health organizations can make to improve recruitment and retention of nursing staff, improve the productivity of nurses and promote patient safety. Strategies include for example, utilizing appropriate technology to improve efficiency, judicious use of non-RN care providers, providing valid and reliable data for planning purposes, providing adequate orientation and continuing education to nursing staff, improving workplace health, supporting effective teamwork among health professionals and developing policies that promote autonomy and respect for nursing personnel as valued members of the health care team. Health organizations can also implement competitive nursing compensation packages that remunerate nurses for their experience, educational preparation and contribution to the organization. Health organizations can also foster a culture that respects the autonomy and expert decision-making capacity of nurses regarding appropriate nurse staffing and quality of care issues.

There is a strong body of evidence to suggest that by achieving optimal nurse staffing levels that closely match the acuity level of patients the quality of care is improved. Furthermore, achieving optimal nurse staffing levels also enhances the quality of worklife for nurses. The adoption of mandated (through legislation, collective agreements or regulations) Nurse-Patient Ratios is one mechanism to achieve this end. Other options are available to policy makers that can achieve the same outcomes, including ensuring appropriate nurse staffing through the use of agreed upon nurse staffing plans, valuing and respecting the contribution of nurses as decision-makers. This requires a cooperative, trusting relationship among nurses and management to achieve the common goal of high quality patient care and the well-being of nurses. This can only be achieved through a consolidation of viewpoints among nurses, unions, administrators and governments regarding the importance of attending to optimal nurse staffing in health organizations.

The decision to adopt one mechanism to ensure adequate nurse staffing versus another is inherently a political decision. Voluntary compliance with nurse staffing policies that promote high standards of patient care and the well being of nurses is achievable. In the absence of consensus on the approach to achieving optimal nursing care the promotion of mandated standards remains an alternative for consideration.

April 4, 2005

Nurse-Patient Ratios:

A discussion paper



Appendix One

American Nurses Association

Principles of Nurse Staffing Plans⁸⁹

The nine principles identified by the expert panel for nurse staffing and adopted by the ANA Board of Directors on November 24, 1998 are listed below.

I. Patient Care Unit Related

- Appropriate staffing levels for a patient care unit reflect analysis of individual and aggregate patient needs.
- There is a critical need to either retire or seriously question the usefulness of the concept of nursing hours per patient day (HPPD).
- Unit functions necessary to support delivery of quality patient care must also be considered in determining staffing levels.

II. Staff Related

- The specific needs of various patient populations should determine the appropriate clinical competencies required of the nurse practising in that area.
- Registered nurses must have nursing management support and representation at both the operational level and the executive level.
- Clinical support from experienced RNs should be readily available to those RNs with less proficiency.

III. Institution/Organization Related

- Organizational policy should reflect an organizational climate that values registered nurses and other employees as strategic assets and exhibit a true commitment to filling budgeted positions in a timely manner.
- All institutions should have documented competencies for nursing staff, including agency or supplemental and travelling RNs, for those activities that they have been authorized to perform.
- Organizational policies should recognize the myriad needs of both patients and nursing staff.

Nurse-Patient Ratios:

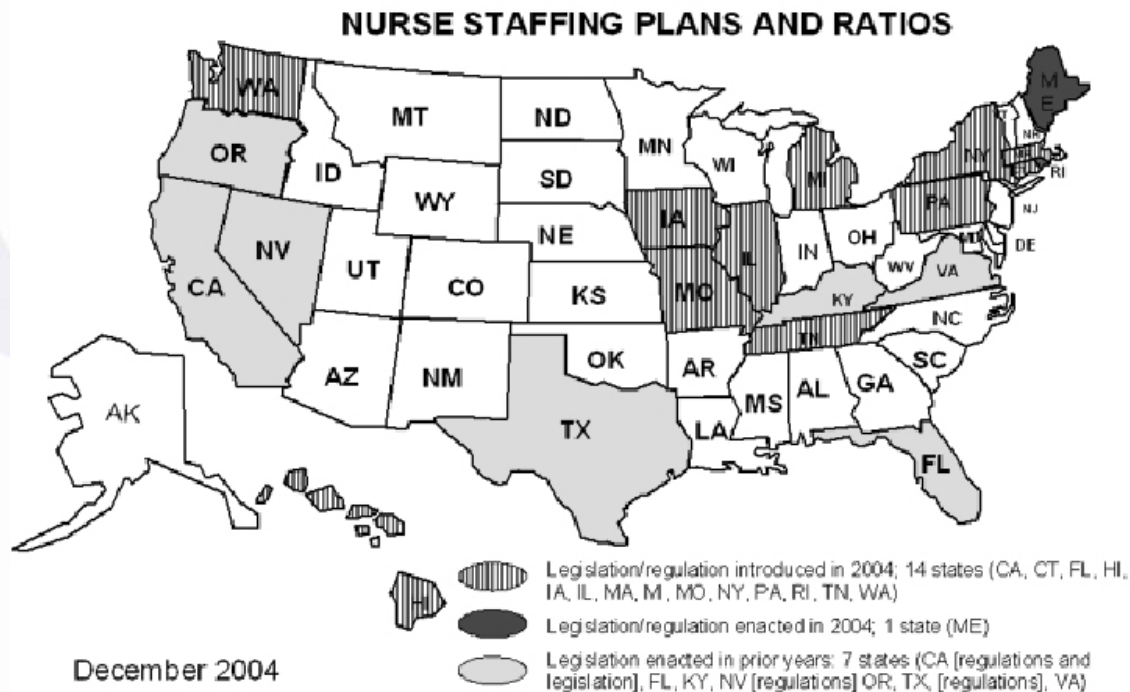
A discussion paper



Appendix Two

Nurse Staffing Plans and Ratios

The American Nurses Association's Nationwide State
Legislative Agenda



Source: ANA <http://nursingworld.org/gova/state/2005/staffing.htm>

Nurse-Patient Ratios:

A discussion paper



Appendix Three

California's Nurse-Patient Ratios⁹⁰

Intensive / Critical Care	1:2
Neo-Natal Intensive Care	1:2
Operating Room	1:1
Post-Anesthesia Recovery	1:2
Labour and Delivery	1:2
Antepartum	1:4
Postpartum Couplets	1:4
Postpartum Women Only	1:6
Pediatrics	1:4
Emergency Room	1:4
ICU Patients in the ER	1:2
Trauma Patients in the ER	1:1
Step Down Initial	1:4
Step Down in 2008	1:3
Telemetry Initial	1:5
Telemetry in 2008	1:4
Medical/Surgical Initial	1:6
Medical Surgical in 2005	1:5
Other Specialty Care Initial	1:5
Other Specialty Care in 2008	1:4
Psychiatric	1:6

Nurse-Patient Ratios:

A discussion paper



Appendix Four

Links to Nurse-Patient Ratio Legislation

California Assembly Bill 394.

http://www.calnurse.org/files.calnurse.org/assets/ab_394_bill_19991010_chaptered.pdf

Massachusetts (Proposed Legislation) AN ACT ENSURING QUALITY PATIENT CARE AND SAFE REGISTERED NURSE STAFFING.

<http://www.massnurses.org/News/2002/safestaff/billtextdec2002.pdf>

Nurse-Patient Ratios:

A discussion paper



Appendix Five
Victoria State, Australia
Nurse-Patient Ratios⁹¹

Type of Unit	Hospital Category	a.m. shift	p.m. shift
General Medical/ Surgical Ward	Level 1	1:4 + in charge	1:4 + in charge
	Level 3	1:5 + in charge	1:6 + in charge
Ante/Postnatal	All levels	1:5 + in charge	1:6 + in charge
Operating Theatre	3 nurses per theatre (1 scrub, 1 scout and 1 anaesthetic nurse) This may vary up and down depending on pre-determined factors		
Post Anaesthetic Care Unit / Recovery Room	All shifts 1:1 for unconscious patient		

Nurse-Patient Ratios:

A discussion paper



Endnotes

- ¹ Spilsbury, K. & Meyer, J. (2001). Defining the Nursing Contribution to Patient Outcome: Lessons From a Review of the Literature Examining Nursing Outcomes, Skill Mix and Changing Roles. *Journal of Clinical Nursing*, 10, 3-14.
- ² Curtin, L. (September 30, 2003). An Integrated Analysis of Nurse Staffing and Related Variables: Effects on Patient Outcomes. *Online Journal of Issues in Nursing*. Available: www.nursingworld.org/ojin/topic22/tpc22_5.htm
- ³ Needleman, J, et al. (February 28, 2001). Nurse Staffing and Patient Outcomes in Hospitals. Final Report for Health Resources Services Administration. Contract No. 230-99-0021, Harvard School of Public Health, Boston, Massachusetts.
- ⁴ McGillis Hall, L. (2005). Chapter 2 Nurse Staffing. In L. McGillis Hall (Ed.) *Quality Work Environments for Nurse and Patient Safety*. Toronto: Jones and Bartlett Publishers.
- ⁵ Lang, T.A., Hodge, M., Olson, V., Romano, P.S. & Kravitz, R.L.. (July/August 2004). A Systematic Review on the Effects of Nurse Staffing on Patient, Nurse Employee and Hospital Outcomes. *Journal of Nursing Administration*, 34 (7/8), 326-337.
- ⁶ Needleman, J. et al. (2002). Nurse-Staffing Levels and the Quality of Care in Hospitals. *New England Journal of Medicine*, 346, 1715-1722.
- ⁷ Cho, S.H., Ketefian, S., Barkauskas, V.H. & Smith, D.G. (March/April 2003). The Effects of Nurse Staffing on Adverse Events, Morbidity, Mortality, and Medical Costs. *Nursing Research*, 52, (2), pp. 71-79.
- ⁸ Sovie, M. D. & Jawad, A. F. (2001). Hospital Restructuring and its Impact on Outcomes. *Journal of Nursing Administration*, 31, 588-600.
- ⁹ Pearson, S.D. et al. (2004). Nurse Staffing and Mortality for Medicare Patients with Acute Myocardial Infarction. *Medical Care*, 42, 4-12.
- ¹⁰ Aiken et al. (2002). Hospital Nurse Staffing, and Patient Mortality, Nurse Burnout and Job Dissatisfaction. *Journal of the American Medical Association*, 288 (10), 1987-1993.
- ¹¹ McGillis Hall, L. (2005). Op. Cit. Pp. 16-23.
- ¹² Clarke, S.P. (2003). Balancing Staffing and Safety. *Nursing Management*, 34 (6), 44-48
- ¹³ Spilsbury, K. & Meyer, J. (2001). Defining the Nursing Contribution to Patient Outcome: Lessons From a Review of the Literature Examining Nursing Outcomes, Skill Mix and Changing Roles. *Journal of Clinical Nursing*, 10, 3-14.
- ¹⁴ Curtin, L. (September 30, 2003). An Integrated Analysis of Nurse Staffing and Related Variables: Effects on Patient Outcomes. *Online Journal of Issues in Nursing*. Available: www.nursingworld.org/ojin/topic22/tpc22_5.htm
- ¹⁵ Whitman, G.R. et al. (2002). The Impact of Staffing on Patient Outcomes Across Specialty Units. *Journal of Nursing Administration*. 32 (12) pp. 633-639.
- ¹⁶ McGillis Hall, L., Doran, D., & Pink, G.H. (2004). Nurse Staffing Models, Nursing Hours, and Patient Safety Outcomes. *JONA*, 34 (1), pp 41-45.
- ¹⁷ Sochalski, J. (2004). Is More Better? The Relationship Between Nurse Staffing and the Quality of Nursing Care in Hospitals. *Medical Care*, 42, pp. II-67–II-73)
- ¹⁸ McGillis Hall, L. et al. (2003). Nurse Staffing Models as Predictors of Patient Outcomes. *Medical Care*, 41 (9), pp 1096–1109.

Nurse-Patient Ratios:

A discussion paper



- ¹⁹ McGillis Hall, L. (2005). Chapter 2 Nurse Staffing. In L. McGillis Hall (Ed.) *Quality Work Environments for Nurse and Patient Safety*. Toronto: Jones and Bartlett Publishers.
- ²⁰ McGillis Hall (2005). *Op cit.* P. 15.
- ²¹ Lang et al. (2004) *op. Cit.* P. 329.
- ²² Aiken, L.H., Clarke, S.P. & Sloane, D.M. (2002). Hospital Staffing, Organization, and Quality of Care: Cross national Findings. *International Journal for Quality in Health Care*, 14(1), 5-13.
- ²³ McGillis Hall, L. & Doran, D. (2004). Nurse Staffing, Care Delivery Model and Patient Care Quality. *Journal of Nursing Care Quality*, 19(1), 27-33.
- ²⁴ Aiken, L.H., Clarke, S.P., Sochalski, J. & Silber, J.H. (2002). Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction. *Journal of the American Medical Association*, 288(16), 1987-1993.
- ²⁵ Mark, B.A., Salyer, J. & Wan, T.T. (2000). Market, Hospital and Nursing Unit Characteristics as Predictors of Nursing Unit Skill Mix. *Journal of Nursing Administration*, 30(11), 552-560.
- ²⁶ McGillis Hall, L. (2005). *Op. Cit.* P. 23.
- ²⁷ O'Brien-Pallas, L., Thomson, D., McGillis Hall, L. Pink, G., Kerr, M., Wang, S., Li, X., Meyer, R. (September 2004). Evidence-based Standards for Measuring Nurse Staffing and Performance. CHSRF.
- ²⁸ Curtin, L.L. (September 30, 2003). An Integrated Analysis of Nurse Staffing and Related Variables: Effects on Patient Outcomes. *Online Journal of Issues in Nursing*, www.nursingworld.org/ojin/topic22/tpc22_5.htm
- ²⁹ Gelinas, L. & Bohlen, C. (2002). The business Case for Retention. *Journal of Clinical Systems Management*. 4 (78), 14-16, 22.
- ³⁰ American Nurses Association (1999). Principles for Nurse Staffing. www.ana.org.
- ³¹ Canadian Nurses Association (June 2003). Position Statement -- Staffing Decisions for the Delivery of Safe Nursing Care. www.can-aiic.ca
- ³² ANA (1999). *Op. Cit.*.
- ³³ ANA (1999). *Op. Cit.*.
- ³⁴ ANA (1999). *Op. Cit.*.
- ³⁵ McClure, M.L., Poulin, M.A., Sovie, M.D. and Wandelt, M.A. (1983). *Magnet Hospitals: Attraction and Retention of Professional Nurses*. Kansas City, MO: American Nurses Association.
- ³⁶ AMA Principles for Nurse Staffing (1999). *Op.cit.*
- ³⁷ AMA Principles for Nurse Staffing (1999). *Op.cit.*
- ³⁸ O'Brien-Pallas, L., Thomson, D., McGillis Hall, L. Pink, G., Kerr, M., Wang, S., Li, X., Meyer, R. (September 2004). Evidence-based Standards for Measuring Nurse Staffing and Performance. CHSRF.
- ³⁹ Ibid.
- ⁴⁰ Ibid.

Nurse-Patient Ratios:

A discussion paper



- ⁴¹ Clarke, S.P. (2003). Balancing Staffing and Safety. *Nurse Manager*, 34(6), 44-48.
- ⁴² Aiken et al. (Oct. 23/30, 2002). Hospital Nursing Staffing and Patient Mortality, Nurse Burnout and Job Dissatisfaction. *JAMA*, 288(10), 1987-1993.
- ⁴³ Shaver, K.H. & Lacey, L.M. (2003). Job and Career Satisfaction Among Staff Nurses Effects of Job Setting and Environment. *JONA*, 33 (3), 166-172.
- ⁴⁴ Needleman, J, et al. (February 28, 2001). Nurse Staffing and Patient Outcomes in Hospitals. Final Report for Health Resources Services Administration. Contract No. 230-99-0021, Harvard School of Public Health, Boston, Massachusetts.
- ⁴⁵ American Nurses Association: 2003 Legislation: Nurse Staffing Plans and Ratios, www.nursingworld.org
- ⁴⁶ O'brien-Pallas, L., Meyer, R. & Thomson, D. (2005). Workload and Productivity. In L. McGillis Hall (Ed.) *Quality Work Environments for Nurse and Patient Safety*. Toronto: Jones and Bartlett Publishers.
- ⁴⁷ Ibid. p. 131.
- ⁴⁸ Ibid.
- ⁴⁹ United Nurses of Alberta (February 9, 2003). Negotiations: UNA Negotiations News: The Latest from the Bargaining Table. <http://www.una.ab.ca/conferences/media%20releases/Increasing%20nursing%20care...>
- ⁵⁰ E-mail correspondence. March 18, 2005. Valerie MacDonald, Manager, SDST Ontario Nurses' Association.
- ⁵¹ Canadian Nurses Association (June 2003). Position Statement: Staffing Decisions for the Delivery of Safe Nursing Care". www.cna-aiic.ca
- ⁵² Canadian Nurses Association Position Statement : Staffing Decision for the Delivery of Safe Nursing Care, www.can-aiic.ca
- ⁵³ CNA/CPNA (January 2005) Evaluation Framework to Determine the Impact of Nursing Staff Mix Decisions. http://www.cna-aiic.ca/CNA/documents/pdf/publications/Evaluation_Framework_2005_e.pdf
- ⁵⁴ Ibid.
- ⁵⁵ www.nursingworld.org/NursingProjectUSMapPlansandRatios.htm
- ⁵⁶ <http://nursingworld.org/readroom/stffprnc.htm>
- ⁵⁷ <http://nursingworld.org/readroom/stffprnc.htm>
- ⁵⁸ Principles for Nurse Staffing <http://nursingworld.org/readroom/stffprnc.htm>
- ⁵⁹ E-mail correspondence, with Judy Malone Stack, Assistant to the Director of Organizing, United American Nurses, February 25, 2005.
- ⁶⁰ www.calnurses.org. "CNA's 12 Year Campaign for Safe RN Staffing Ratios - Fact Sheet".
- ⁶¹ Institute for Health and Socio-Economic Policy (March 2001). AB 394: California and the Demand for Safe and Effective Nurse to Patient Staffing Ratios. Author.
- ⁶² Institute for Health and Socio-Economic Policy (March 2001). AB 394: California and the Demand for Safe and Effective Nurse to Patient Staffing Ratios. Author.

Nurse-Patient Ratios:

A discussion paper



- ⁶³ Ibid.
- ⁶⁴ American Nurses Association: 2003 Legislation: Nurse Staffing Plans and Ratios, www.nursingworld.org
- ⁶⁵ Source: www.calnurse.org - RN Ratios Alert , Ratio Basics.
- ⁶⁶ Source www.calnurse.org - RN Ratios Alert, Ratio Basics
- ⁶⁷ New Nurse-to-Patient Staffing Ratios Present Challenges in California. Medical News, 14 (2), Full Issue.
- ⁶⁸ California Hospital Association. January 18, 2005. CNA and Ratios: A Campaign of Misinformation. [Press Release] <http://www.calhealth.org/public/press/node1.asp?ID=1>
- ⁶⁹ Ibid.
- ⁷⁰ Australian Nursing Federation (Victorian Branch) Nurse-Patient Ratios: Nursing Shortages? www.anfvic.asn.au/news_ratios%20booklet.htm
- ⁷¹ Ibid.
- ⁷² Ibid.
- ⁷³ Ibid.
- ⁷⁴ Ibid.
- ⁷⁵ www.icn.ch/sewaug-oct01.htm
- ⁷⁶ www.anfvic.asn.au
- ⁷⁷ Buchanan, J. Bretherton, T. ,Bearfield, S. & Jackson, S. (March 2004). Stable, But Critical : The Working Conditions of Victorian Public Sector Nurses in 2003. Australian Nursing Federation.
- ⁷⁸ Ibid.
- ⁷⁹ NZNO News Release (February 25, 2005). Nurses Vote to Accept Fair Pay Settlement.
- ⁸⁰ www.calnurses.org/?Action=content&id=170. Fact Sheet on RN Staffing Ratio Law.
- ⁸¹ International Council of Nurses (2005). Nursing Matters: Nurse:Patient Ratios. www.icn.ch/matters_rnptratio.htm
- ⁸² www.icn.ch/sewaug-oct01.htm . International Council of Nurses Nurse Patient Ratios.
- ⁸³ Australian Nursing Federation (Victorian Branch) (Op. Cit.)
- ⁸⁴ O'Brien-Pallas, L., Duffield, C., Tomblin-Murphy, G., Birch, S. & Meyer, R. (2005) Nursing Workforce Planning: Mapping the Policy Trail. The Global Nursing Initiative. International Council of Nurses. Geneva.
- ⁸⁵ Ibid.
- ⁸⁶ Lang et al. (2004) Op. Cit.
- ⁸⁷ O'Brien-Pallas et al. (2005) Op. Cit.
- ⁸⁸ <http://www.nursingworld.org/ancc/inside/about/aboutmagnet.html>

Nurse-Patient Ratios:

A discussion paper



⁸⁹ Principles for Nurse Staffing <http://nursingworld.org/readroom/stffprnc.htm>

⁹⁰ www.calnurses.org

⁹¹ www.anfvic.asn.au/news_briefs/news_ratios%20summary.htm

Nurse-Patient Ratios:

A discussion paper



Report from Stakeholders' Meeting

**Tuesday March 22, 2005
Ottawa, Ontario**

Hadley Health Administration Services Ltd.

Prepared for
The Canadian Federation of Nurses Unions

September 2005

Nurse-Patient Ratios:

A discussion paper



Objective: *To solicit and report on the participants' opinions of Nurse-Patient Ratios and Patient Safety*

Participants

Della Falkner - CHA - Canadian Health Association
 Pat Griffin - CASN - Canadian Associations of Schools of Nursing
 Susan Hicks - HC - Health Canada
 Verna Holgate - CLPNM - College of Licensed Practical Nurses of Manitoba
 Larry LeMoal - SUN - Saskatchewan Union of Nurses
 Lisa Little CNA - Canadian Nurses Association
 Valerie MacDonald - ONA - Ontario Nurses' Association
 Sandra MacDonald-Rencz - HC - Health Canada
 Gail Tomblin Murphy - Dalhousie University
 Barbara Oke - Principal Nursing Officer - Government of Nova Scotia
 Annette Osted - RPNM - College of Registered Psychiatric Nurses of Manitoba
 Linda Silas - CFNU - Canadian Federation of Nurses Union
 Patricia Wejr - BCNU - British Columbia Nurses' Union
 Fran Hadley - HHAS Facilitator

Introduction

From British Columbia to Newfoundland and Labrador, nurses who deliver direct patient care are asking their representatives to position themselves in favour of formal Nurse-Patient Ratios which ensure safe patient care and positive outcomes for patients, nurses and agencies. Nurses across Canada hope that such ratios would address the issue of heavy workloads which have resulted in high injuries/high absenteeism and turnover rates and compromised patient safety.

Discussions regarding improved Nurse-Patient Ratios have occurred within the Nova Scotia Nurses' Union (NSNU), the Ontario Nurses' Association (ONA), the Saskatchewan Union of Nurses (SUN) and British Columbia Nurses' Union (BCNU). This study will assist all stakeholders in determining further action.

Since the late 1990's efforts have been made to develop a pan-Canadian strategy for nursing. Unprecedented interest in health human resources has emerged, and from the outset, it was agreed that quality of nursing work life demanded immediate attention.

Through the Office of Nursing Policy, Health Canada has been in the forefront in development of a policy direction that would improve the quality of nursing work life, with initiatives such as Healthy Workplace. Together, nursing stakeholders have been striving for Canadian Health Human Resources Strategies that would include retention and recruitment strategies, and produce a stable and healthy nursing workforce.

Nurse-Patient Ratios:

A discussion paper



Experience has demonstrated that in some jurisdictions, the concept of safe ratios has served as retention and even recruitment strategies, i.e. Magnet Hospitals. More recently, the Office of Nursing Policy and national nursing stakeholders have been involved in discussions and projects on patient safety which will require exploration of safe ratios.

Meeting Discussion

The March 22, 2005, meeting in Ottawa of key stakeholders is one phase of a project that is looking at a number of elements related to a pan-Canadian health human resource strategy for the nursing profession. The meeting co-sponsored by the Canadian Federation of Nurses Unions (CFNU) and the Office of Nursing Policy, Health Canada was conducted to explore the feasibility of a Canadian version of a nurse-patient ratio model for staffing. The purpose of the consultation was to gather the opinions of health-care leaders and nurse union leaders on whether formal, mandated, Nurse-Patient Ratios implemented in Canada would enhance patient safety, quality of care, nurses' work environments while at the same time respect professional nursing judgment.

For ease of reading and for the purpose of this report, the term Nurse-Patient Ratio is used when referring to the staffing model explored and reviewed by Dr. Gail Tomblin Murphy in the Literature Review appended to this document. Conceivably, if a Canadian model is developed, implemented and evaluated it may be labelled differently but may replicate/resemble certain aspects of the models implemented in the USA and Australia.

Linda Silas welcomed the participants and provided a synopsis of and background information on this project.

Literature Review

Dr. Gail Tomblin Murphy followed with an overview of the Literature Review conducted on Nurse-Patient Ratios providing details of the scope and purpose of the Review with the discussion focusing on the Pros and Cons section of the Review. The participants congratulated Dr. Tomblin Murphy on the neutral tone of the Review and suggested the following two elements be added and briefly outlined in the final version of the Literature Review:

1. Flexibility in terms of revising Ratios, and
2. Mechanisms to address the need to make revisions if and when needed.

Dr. Tomblin Murphy emphasised that this initiative is positioned for success. She congratulated the leaders for their foresight and commitment to ensuring that the work and planning of this initiative is grounded and well supported in evidence-based information.

Nurse-Patient Ratios:

A discussion paper



Overall, the participants agreed that the Nurse-Patient Ratio concept could be one strategy to address nurse workload issues. However, the participants concurred that the current unsustainable nurse workload was a symptom of a larger system problem and that a number of other elements would have to be addressed to remedy the situation.

The participants acknowledged the following limitations in the Literature Review:

1. There is no literature on or no Canadian examples of mandated ratios.
2. The America and Australian experiences with Nurse-Patient Ratios profiled the acute care sector with little/no inclusion of other sectors including Long-term Care, Community and Mental Health.
3. Concern was raised that the ratios included RN staff exclusively.
4. A further concern was the paucity of information on the impact that these initiatives had on the system as a whole.
5. The lack of information on the financial implications of planning and implementing Nurse-Patient Ratios.

A Favoured Canadian Version

The participants as a group favoured a serious look at implementing an approach similar to those profiled in the Literature Review and suggested a number of themes to consider when transferring the concept to the Canadian system. The participants identified essential elements to incorporate into a Canadian version of the Nurse-Patient Ratio concept. A recurring theme in the discussion was the need to address patient safety, nurses' health and appropriate staffing levels.

Essential Elements

- Mandated minimal professional staffing standards,
- Supported by electronic and appropriate workload measurement systems and tools,
- Incorporate strong nursing leadership,
- Involve all disciplines including occupational and physical therapists, social workers, etc. in the development, implementation and evaluation,
- Include all direct care providers in the ratio count,
- Develop/adopt flexibility mechanisms to ensure staffing adjustments that match staffing requirements noted in Workload Measurement System/tools(WMS), changing patient acuity, evolving changes in delivery systems, etc.,
- Design and allow for individualized approaches to reflect specific sectors, jurisdictions, needs, and
- Incorporate, with extended criteria/details, the CNA and ANA sets of principles.

The following list summarizes what the participants believe are the Barriers and Enablers to consider/address when planning, implementing and evaluating a Canadian version of Nurse-Patient Ratios. This group suggested that the Nurse-Patient Ratio term was misleading and did not adequately capture all of the elements that a Canadian model would incorporate. The participants felt that a term similar to "Professional Staffing Standards" would be more reflective of the complexity and comprehensiveness of a Canadian initiative.

Nurse-Patient Ratios:

A discussion paper



The consensus after considerable discussion was that something needed to happen and that it needed to happen sooner than later to address the current nursing workload crisis. The group favoured planning and implementing a series of pilots across the country involving all sectors, stakeholders and all groups of direct care providers. A vision was articulated that the participants favoured as they acknowledged the need to phase in such an initiative:

- To address the immediate need in the short-term for identifying that “something is being done”,
- The medium-term where implementation could be started, tested and evaluated, and
- The long-term where corrections and revisions could be implemented.

Details of this phased approach follow the Barriers and Enablers sections.

Barriers

The participants representing national stakeholder groups generously shared their opinions on whether a Nurse-Patient Ratios concept as described in the Literature Review could be implemented in Canada. Their comments described a number of elements to consider to facilitate the planning, implementation and evaluation of a Canadian version of a Nurse-Patient ratio initiative. The Barriers articulated include concerns/limitations related to the availability of Research, the constraints of Legislation, the limitations/demand on Resources, the immature state of valid and reliable Data/Information, the attitude of Nurses and Employers, and the restrictions in the Political Will arena.

Research

- Limited empirical evidence to support Nurse-Patient Ratios,
- Little evidence on the outcomes of interdisciplinary team care,
- The word Nurse-Patient Ratio is limiting as it doesn't reflect the multiple factors considered in the concept,
- Misunderstanding of the American model leads readers to believe other than RNs are included in the ratios,
- The optics of the concept is misleading as it suggests that the nurse's clinical judgement is pre-empted by simplifying the ratio to a simple number,
- Difficult to differentiate between evidence and opinions if and when planning the Pilot.

Legislation

- Legislated Nurse-Patient Ratios could result in long delays if/when there is a need to revise Ratios,
- Government funders are unlikely to pass legislation that would force them to increase staffing/costs in their own facilities,
- A policy driven formally mandated staffing standard is a preferred option but previously in place methods have been abandoned,
- A “one-size-fits all” homogeneous approach will not work.

Nurse-Patient Ratios:

A discussion paper



Resources

- Process will be long, complex and consume scarce resources,
- Will have to depend on already constrained resources to develop plans and cost implications,
- Limited expertise to plan, implement and evaluate the concept,
- May be difficult to ensure all nurse groups (RNs, LPNs, RPNs,) as well as other regulated professions be included in count as well as in developing the ratios,
- Expect resistance from employers, funders, staff, etc.
- Stakeholders are distrustful of new initiatives and perceive them to be another attempt to cut back on staffing.

Data/Information

- Canadian public does not have the information to support/pressure the funders to implement this approach,
- Limited Canadian public awareness of the concerns of the direct care providers regarding patient/client/resident safety,
- Limited but growing data becoming available on patient safety but media coverage is not widespread,
- Existing Patient Classification and Workload Measurement Systems (WMS) are inadequate to determine quantity and type/qualifications of staff and staff mix needed,
- Current WMS are primarily in acute care and do not track workload for Long-term Care, Mental Health and Community,
- WMS do not include/account for the complex context of nursing care (availability of other providers, technology, practice patterns of physicians, support in the community, etc.),
- Insufficient support to current WMS (staff time to audit for reliability and validity, educators to orient new staff, etc.),
- Most often only RNs have access to input data on WMS,
- The major concern is that workload hinders staff compliance with WMS as staff perceive WMS as being an extra workload burden,
- Many facilities do not have electronic systems to support WMS,
- Few WMS tools are embedded into the care assessment and care provision captured in the patient's Electronic Health Record (EHR),
- Frequently nursing staff do not understand the purpose and mistrust WMS instruments and staff seldom see reports or any positive impact on staffing related to WMS findings.

Nurses

- The current "risk-adverse" nursing culture limits nurses moving forward on new initiatives until all the information, processes, etc. are perfect and in place,
- Invisibility of nurses and their contribution is a major cause for setbacks in staffing dollars/positions,
- Recent cuts in budgets have eliminated many of the leadership support for nurses including front-line nursing managers, educators, clinical specialists, etc.
- Insufficient strong leadership in nursing,
- Nursing leaders need to be formally prepared/have skills sets to make quality decisions and dialogue successfully with administrators,
- Current nursing role is limited, not utilizing full scope of practice,
- Limitation of nurses' understanding of research, e.g. the link between staffing and adverse effects on patients,
- There is a chance that nurses will perceive that the process will not involve them sufficiently nor will their clinical judgement be valued,

Nurse-Patient Ratios:

A discussion paper



- Implementing the Nurse-Patient Ratio concept in one sector (e.g. hospital) may cause nurses encouraged by better working conditions to shift from other sectors (long-term care, mental health, community) leaving those notoriously underserved sectors further disadvantaged,
- If staffing increases are mandated and there are limited available nurses to staff the positions, what strategies will be implemented,
- Although nurses have the right and the responsibility not to accept unsafe workloads, currently they do not have the ability/authority to refuse additional admissions to their units even if they judge a new admission would result in an unsafe patient care situation.

Employers and Political Will

- Employers are reported as resisting sharing outcomes of workload measurement findings,
- It is speculated that employers resist sharing WMS data as this may lead to a loss of control,
- Enforcement of or any connection to penalties related to non compliance to a mandated ratio system or something similar will be problematic,
- Unknown implications on the whole system such as unions' collective agreements, shifts in budgets, etc.
- The development and implementation will also require Federal and Provincial/Territorial governments collaborate and support the initiative to facilitate successful adoption of the models across jurisdiction,
- May not be accepted across all provinces and organizations resulting in an uneven adoption of the concept.

Enablers

The participants were able to profile a number of significant Enablers that they believe would facilitate planning, implementing and evaluating a Canadian version of the Nurse-Patient Ratio concept. A number of these elements are the flip side of the Barriers listed previously and include availability of existing and growing Research, the system's Level of Preparedness, the attitudes of Nurses, documented Models, the growing thrust for a collaborative approach to Planning and the evolution of Data/Information sources.

Research

- Implementation of the proposed Pilot will benefit from the American and Australian experience.
- Build on existing evidence from the American and Australian experience that provides ratios for various types of hospitals (4 classifications), by departments (Med/Surg, Paeds, ER, Mat/New Born, etc.), by jurisdiction(rural, urban), etc.
- Documented Nurse-Patient Ratio models promote flexible staffing that is more quickly responsive to patient needs
- The Australian report has Collective Agreement language in it as a model to build on.
- The concept addresses the need for nursing leadership as the reported models include staff nurses PLUS a Charge Nurse.
- Provides an opportunity to build on and enhance the numbers of existing strong nursing leaders.
- Evidence suggests that large numbers of nurses return to the workplace following implementation of Nurse-Patient Ratios.
- Existing studies support the relationship between increased staffing, a reduction in adverse patient incidents, and shortened length of stay.
- Supported by recent patient safety reports that suggest patients are not getting adequate care leading to adverse effects such as falls, acquired functional disability, medication errors, hospital acquired infections, etc.

Nurse-Patient Ratios:

A discussion paper



- Opportunity to continue to build on the evidence that appropriate nurse utilization/productivity has serious positive outcomes for patients/clients/residents and their families,
- Addresses the need for evidence to make politicians accountable for cost containment while ensuring people get the proper care,
- On going and evolving studies will provide more information on Population Health and inform decisions on types/quality of services needed to address needs,
- Further improvements to the concept will be the design of an evaluation element that will demonstrate the before and after effects on all components of the system (people, staff, organizations and the system).

Models

- Some models, although not perfect, exist in the long-term care sector where hours of care per resident are identified and linked to a standardized assessment,
- Canada has experience with this concept when using policy-directed staff ratios in critical care areas,
- Two sets of principals, from CNA and ANA, are available to guide the development of a Canadian version of Nurse-Patient Ratios,
- Best Practice models in Canada are available to look at,
- British Columbia is moving forward with the Health ministry ADM bringing parties to the table to work on solutions. They have agreed to have point-of-care providers in the decision making activities,
- Nova Scotia reports that nurses work collaboratively with administrators to make decisions that impact workload,
- WMSs in Nova Scotia are part of the electronic chart (EHR) that will be implemented in 34 hospitals. Home Care is using electronic charting systems as well.

Resources/Preparedness

- Consistent theme from staff nurses is that “something needs to be done” to address the unsustainable workload,
- Unsure if there is less tension between the groups of nurses at the facility level than at the provincial levels,
- Policy makers, funders and administrators are ready for information to guide their decision making,
- Federal government continues to fund a number of projects to address the nursing shortage,
- Momentum is building to encourage/demand collaborative mechanisms where employers, funders, regulators, educators, researchers, direct care providers, unions come together to address these and other significant Health-care Systems issues,
- Participants representing a broad range of stakeholders at the March 22nd meeting appeared to approve of the Pilot approach including the Timed-implementation strategy.

Nurse-Patient Ratios:

A discussion paper



Nurses

- Current professional standards mandate that the nurse has the right and a responsibility to say "NO" to unsafe workload situations that jeopardizes their scope of practice and patient safety,
- Nurses have the skills and responsibility to make the decisions; but do not have the authority/power to do so,
- Build on nurse education programs by expanding the curriculum to include language/management skill development to be confident when dealing with administration,
- The mandated ratio would remove the nurse manager from the vulnerable position of having to confront administration with the request for appropriate/additional staffing,
- May mitigate nursing shortage as nurses close to retirement may be retained and continue to work in a more reasonable workload environment.

Data/Information

- Would make the link between staffing, staffing mix and outcomes on key indicators such as patient safety much clearer,
- The data will meet the need of planners, funders to be able to pull out the numbers related to staff/case-care level,
- WMSs work well when adequate resources are provided(technology to facilitate input, education, audits, etc.), the nurses(all groups) understand the purpose of the system, all nursing groups have input in the development and maintenance of the system, and the reports are timely and are acted on. It is recommended that WMS tools be imbedded into nurses' routine work to facilitate compliance with the tool,
- Opportunity to support the accreditation process that encourages and values the input of direct care providers and their involvement in decision making,
- New Patient Safety Institute would be a good partner in this initiative and suggest that planners frame the partnership in a common interest in Patient-Outcomes,
- The following section describes a Vision and a proposed Timed Implementation strategy that the participants acknowledged as a viable approach to planning, implementing and evaluating a Canadian version of a Nurse-patient ratio.

The participants identified significant benefits could be achieved in Planning Activities that address patient safety, quality care and nurses' health. These are listed below:

- The ability to compare care levels and staffing needs across all sectors would provide better planning information and improve decision making around services and budgets,
- Decision makers recognize that plans must not be tied to traditional ways of measuring needs e.g., bed occupancy rates and are seeking other methods to support quality decisions,
- Information gathered would address administrators' need to link staffing to broader indicators such as costs, LOS, etc. Many of these broad indicators are already collected and could be combined to provide comprehensive information for quality decision making,
- For sectors including ambulatory care, community and mental health, the proposed concept would link the number of nurses and the number of visits and outcomes to better plan and manage the whole system,
- Inclusion of all direct care providers in the planning, implementation and evaluation would go a long way in developing interdisciplinary teams and coordinated care.

The Vision

The participants articulated a Vision that would see the planning, implementation and evaluation of a Canadian staffing model in a three phase approach.

Nurse-Patient Ratios:

A discussion paper



Proposed Implementation Strategy

That the CFNU lead a collaborative process with stakeholders to set up pilot projects across the provinces and territories that would test the establishment of formal Nurse-Patient Ratios in all sectors of nursing service delivery.

Establishment of the ratios would engage and be guided by direct care providers (RNs, LPNs, and RPNs) as well as other regulated care providers, employers, regulatory bodies, researchers, government and other stakeholders. The collaborative Nurse-Patient Ratio process would assume the following three phases are required:

Short-term

Phase 1 of CFNU nurse-patient ratio project:

- Consultation with stakeholders to begin the establishment of the planning, implementation and evaluation elements of the process.

Action: To inventory, gather and synthesize evidence regarding relationship between staffing levels and patient, nurse and organizational outcomes.

- Knowledge uptake activities to boost direct care provider's understanding and ability to use related research/evidence. Care providers will be able to incorporate their growing body of knowledge along with their professional responsibilities to ensure the provision of quality care for patients/clients/residents and to optimize care receivers' safety. In addition, better informed direct care providers will collaborate with administrators to ensure healthy work environments.

Action: To consider cost implications/savings of ratio establishment process.

Note: recognize that nurse unions may proceed with collective bargaining processes to begin to assess employer willingness to implement nurse patient ratios.

Mid-Term

Phase 2 of CFNU Nurse-Patient Ratio project:

- Establish a Project Budget.

Action: Identify appropriate/likely funding sources. Develop and submit funding requests.

- Establish formal Nurse-Patient Ratio projects in pilot sites.

Nurse-Patient Ratios:

A discussion paper



Action: To design research to collect baseline evidence to identify before/after outcomes indicators.

- Establish and implement formal ratios and testing of process, including workload measurement tools.
- Supplement formal ratios by incorporating staffing plan guidelines from professional associations, and results from research regarding, patient nurse and organizational outcomes, workload measurement experience, and right of direct care providers to have much greater role in determining staff mix and resources.

Long-Term

Phase 3 of CFNU Nurse-Patient Ratio project:

Move beyond formal ratios at unit level to look at supplementing or replacing formal ratios depending on outcomes (recognizing their possible limitations)

- Taking into account the nursing services required to meet population health needs,
- Changes in scope of practice,
- Pautonomy and authority,
- Delivery mechanisms,
- Staff mix, and
- Provider collaboration.

In this way, we would acknowledge and incorporate the reasoned opposition to ratios, by saying in effect.....

- "We know ratios are a crude tool...but let's start working to implement improved ratios until we find something better..."
- We can move to testing formal ratios..., realizing they are a learning and transition phase, and
- These ratios likely need to be supplemented in the long term with more sophisticated planning models that may be urged by professional associations and academics, and incorporating direct care authority."

Conclusion

The participants thanked Linda Silas and the CFNU for the leadership demonstrated in organizing this opportunity for key stakeholders to discuss and share their opinions on Nurse-Patient Ratios, a promising concept that has the potential to address current workload and patient safety concerns in Canada.

Nurse-Patient Ratios:

A discussion paper



Nurse-Patient Ratio Workshop Summary Report

Canadian Federation of Nurses Unions
12th Biennial Convention

Regina, Saskatchewan
June 5 - 6, 2005

Tomblin Murphy Consulting Incorporated

Prepared for
The Canadian Federation of Nurses Unions

August 2005

Nurse-Patient Ratios:

A discussion paper



Tomblin Murphy Consulting Incorporated
Prepared for:
The Canadian Federation of Nurses Unions
August 2005

Table of Contents

1.0 Introduction.....	43
2.0 Convention Workshop on Nurse-Patient Ratios.....	43
3.0 Summary of Responses	43
4.0 Key Messages.....	45
Appendix A - Nurse-Patient Ratios Workbook.....	46

Nurse-Patient Ratios:

A discussion paper



1.0 Introduction

The National Executive Board of the Canadian Federation of Nurses Unions (CFNU) is involved in discussions with various nursing, healthcare, and governmental stakeholder groups to explore ways to improve patient safety and address ongoing labour issues in the nursing profession. In this regard, there is an interest in exploring the merits of implementing formal, mandated, Nurse-Patient Ratios in Canada as a means to enhance patient safety and the well-being of nurses. This interest is fueled, in part, by the implementation of mandatory, minimum Nurse-Patient Ratios in California in the United States and the State of Victoria in Australia.

In April of 2005 the Canadian Federation of Nurses Unions and the Office of Nursing Policy, Health Canada, commissioned Tomblin Murphy Consulting Inc. to write a report entitled, **"Nurse-Patient Ratios and Patient Safety: A Review of the Literature"**. The Literature Review consists of an examination of published and unpublished reports from government, the academic community and professional organizations from Canada and abroad with a particular focus on issues related to nurse staffing and patient safety. This review of the literature examined the various definitions and dimensions (pros and cons) of Nurse-Patient Ratios as a staffing policy and the experiences of other jurisdictions.

2.0 Convention Workshop on Nurse-Patient Ratios

The Canadian Federation of Nurses Unions held its 12th Biennial Convention at the Delta Regina Hotel in Regina, Saskatchewan from June 3-6, 2005. One of the sessions at the Convention was a workshop on Nurse-Patient Ratios hosted by Dr. Gail Tomblin Murphy. The goals of the nurse-patient ratio workshop were to explore existing knowledge, share viewpoints on the benefits and drawbacks of Nurse-Patient Ratios and to seek input from participants. Participants in the focus group sessions were invited to complete a Workbook that consisted of 13 questions examining various aspects of Nurse-Patient Ratios (See Appendix A – Nurse-Patient Ratios Workbook). The following is a summary of the results of the responses (269 workbooks were completed) and focus group discussions.

3.0 Summary of Responses

The information contained in this summary is intended to be a synthesis of the responses provided by participants in the nurse-patient ratio workshop. The focus groups, workbook design and the analysis of the responses were not subjected to the rigors normally associated with conducting formal academic research. The summary of findings should be interpreted accordingly.

Question 1: What is your professional designation?

The majority of respondents were Registered Nurses (93%) followed by Licensed Practical Nurses (3%), Registered Psychiatric Nurses (1%), and the remaining responses (3%) selected either multiple categories or no category was selected.

Question 2: How long have you worked in the nursing profession?

The majority of respondents have worked in the nursing profession for more than 20 years (67.7%), followed by 16-20 years (16%), 11-15 years (9.3%), 6-10 years (4%) and 0-5 years (2.6%).

Question 3: In what area do you work?

The respondents who worked exclusively in one of the survey categories reported the following: Nursing Union (3%), Acute Care (52%), Community/Public Health (14%), Mental Health (3%), Clinics/Industry (13%). Many of the respondents reported that they work in multiple areas (18%).

Nurse-Patient Ratios:

A discussion paper



Question 4: Do you believe that mandatory Nurse-Patient Ratios or some other form of mandatory nurse-staffing, will improve the quality of patient care?

The majority of respondents said they believed that mandatory Nurse-Patient Ratios (or some other form of mandatory nurse-staffing) will improve the quality of patient care. Only 13 of the 269 respondents (4%) responded "no" to this question. Examples of reasons for believing that Nurse-Patient Ratios would improve patient care included: ensuring an appropriate workload for nurses, reduced stress and burnout, increased job satisfaction, improved recruitment and retention and better individual care of patients. Those opposed cited a lack of evidence and research to support the effectiveness of nurse-patient ratios.

Question 5: Do you feel that minimum Nurse-Patient Ratios will improve the recruitment and retention of nurses in your health organization or nursing unit?

The overwhelming majority of respondents said that Nurse-Patient Ratios would improve the recruitment and retention of nurses. Reasons cited included decreasing nurse workloads, reducing stress levels in the workplace, improving nurse-patient staffing, improving the health and well-being of nurses, and so forth. Some respondents expressed the view that Nurse-Patient Ratios would not improve recruitment and retention or that they were lacked sufficient information to make an informed judgement. Reasons cited for Nurse-Patient Ratios not improving recruitment and retention focused primarily on the particular type of nursing unit (e.g. emergency room, community nursing) or geography, specifically, rural areas.

Question 6: What are some of the benefits that you foresee with implementing mandatory nurse-patient ratios?

The benefits associated with implementing Nurse-Patient Ratios include: decreasing levels of absenteeism, sick time, disability, workplace injury and workplace stress, and improvements in the areas of job satisfaction, quality of patient care, morale and better work environment, manageable workloads, and recruitment and retention of nurses.

Question 7: What other measures need to be implemented to improve the quality of patient care and the well-being of nurses?

Responses suggest there are various means to improve the quality of care and the well-being of nurses including, for example, providing education for nurses to upgrade their qualifications, improving labour-management relations and respecting nurses as professionals, providing appropriate technology to increase work efficiency (equipment), providing additional support staff to increase nurse efficiency, reducing mandatory overtime, empowering nurses to work to their full scope of practice, allowing for more flexible working hours, providing on-site child care, and improving working conditions, among others.

Question 8: What are the drawbacks that you foresee with implementing mandatory nurse-patient ratios?

Respondents identified several potential drawbacks associated with implementing mandatory nurse-patient ratios including, for example, establishing mechanisms to hold organizations accountable for implementing (or not implementing) Nurse-Patient Ratios and, establishing effective and consistent tools and procedures for determining patient acuity and care requirements. Concern was also expressed regarding the process that would be used to establish minimum Nurse-Patient Ratios and the need to consider the different kinds of nursing units, patient needs, nurse training, geographical location of the organization or nursing unit in the determination of the ratios. Some respondents expressed concern that the implementation of minimum Nurse-Patient Ratios combined with the current shortage of nurses may lead to increased cost of delivering care and bed or facility closures.

Question 9: I feel that our union leadership should be given a mandate to advocate for mandatory, minimum nurse patient ratios.

The general response to the question of whether union leadership should be given the mandate to advocate for mandatory minimum Nurse-Patient Ratios can be characterized as strongly agree (average of 1.8 on a scale of 1 to 5 with 1 being "Strongly Agree" and 5 "Strongly Disagree"). However, the qualitative responses suggest that more research needs to be conducted to determine how Nurse-Patient Ratios would be implemented in the workplace.

Question 10: Nurse-Patient Ratios are still relatively new. I think we should adopt a "wait and see" attitude.

The majority of respondents disagreed strongly with the statement that a "wait and see" attitude should be adopted. The average score for this question was 4.25 on a scale of 1 to 5 with 1 being "Strongly Agree" and 5 being "Strongly Disagree". Of those that responded 4.5% were undecided.

Nurse-Patient Ratios:

A discussion paper



Question 11: Do you feel you have enough information to judge whether Nurse-Patient Ratios are an effective way to improve the nursing shortage and address quality of care issues?

Responses to this question were divided equally with 46.5% saying yes and 46.5% saying no. The remaining surveys were left blank (7%)

Question 12. What additional information do you need to make an informed choice regarding the effectiveness of nurse-patient ratios?

Responses to this question were varied, but there was interest expressed in closely examining the experience of other jurisdictions (in particular California and Victoria State) that have implemented mandatory nurse-patient ratios. In addition, respondents reported that there is a need to conduct or examine research that provides evidence that Nurse-Patient Ratios will indeed lead to improvements in the quality of care. Furthermore, there is a need to proceed cautiously with the implementation of Nurse-Patient Ratios in different nursing settings for example, acute care, community care, long term care and in rural and urban settings. Some respondents identified shift work as another issue that needs to be considered in the determination of nurse-patient ratios.

Reducing nurse staffing requirements to simplistic Nurse-Patient Ratios does not often consider the many factors that need to be considered when staffing a nursing unit. Respondents identified the need to examine various aspects of Nurse-Patient Ratios and patient safety including for example, availability of properly trained and qualified nursing staff, availability of proper equipment, physical layout of the nursing unit, the presence of ancillary nursing staff, legal scope of practice of RNs and LPNs (and the need to clearly define the role of RNs and LPNs in each nursing setting), the acuity level and type of patient served, primary care or team nursing, and so forth.

Question 13: Is there anything else you would like to tell us regarding nurse staffing, patient safety, nurse well being?

Many of the concerns expressed cite the complexity of nursing practice and the delivery of patient care and the need to consider many factors in the determination of appropriate nurse staffing levels.

4.0 Key Messages:

- Respondents generally expressed the view that implementing Nurse-Patient Ratios would decrease workloads, assist with the retention and recruitment of nurses, contribute to improving the worklife and health of nurses, decrease stress levels and burnout of nurses and improve the quality of patient care.
- The minority viewpoint did not support Nurse-Patient Ratios and cited a lack of data and research documenting the effectiveness of mandatory minimum Nurse-Patient Ratios as a means to address patient safety and nurse well-being.
- While respondents were generally supportive of implementing mandatory minimum Nurse-Patient Ratios as a means to improving patient safety, it was acknowledged that there is a need to conduct more research on the effectiveness and long term impact of implementing Nurse-Patient Ratios in various settings.
- Respondents readily identified the complexity of nursing practice and the challenges associated with delivering safe, effective patient care. Many respondents expressed the view that Nurse-Patient Ratios are just "numbers" and do not often reflect or consider the acuity of the patient and the skill and educational preparation of the nurse. The process to establish minimum Nurse-Patient Ratios will need to consider and incorporate a wide range of factors to ensure minimum Nurse-Patient Ratios lead to an improvement in patient safety and the well-being of nurses.
- Concern was expressed regarding the process to establish nurse-patient ratios, in particular the role that professional nurses will play in the determination and monitoring of nurse-patient ratios. Furthermore, respondents expressed concern regarding the need to establish enforcement mechanisms to ensure employers comply with established nurse-patient ratios.

Nurse-Patient Ratios:

A discussion paper



Appendix A - Nurse Patient Ratios Workshop Workbook

Nurse-Patient Ratios

Workbook

June 5, 2005

Please answer the following questions. Either write in your answer or place an "X" in the appropriate box.
Do not write your name on the Workbook.

In what Province/Territory do you work? _____

1. What is your professional designation?

R.N. ☐

L.P.N. ☐

R.P.N. ☐

Nurse Practitioner ☐

Other ☐

2. How long have you worked in the nursing profession?

0-5 years ☐

6-10 years ☐

11-15 years ☐

16-20 years ☐

More than 20 years ☐

3. In what area do you work?

Nursing Union ☐

Acute Care ☐

Community/Public Health ☐

Mental Health ☐

Clinics/Industry ☐

Other ☐

Nurse-Patient Ratios:

A discussion paper



4. Do you believe that mandatory nurse-patient ratios, or some other form of mandatory nurse staffing, will improve the quality of patient care? Why?

5. Do you feel that minimum Nurse-Patient Ratios will improve the recruitment and retention of nurses in your health organization or nursing unit?

6. What are some of the benefits that you foresee with implementing mandatory nurse-patient ratios?

7. What other measures need to be implemented to improve the quality of patient care and the well-being of nurses?

8. What are some of the drawbacks that you foresee with implementing mandatory nurse-patient ratios?

9. I feel that our union leadership should be given a mandate to advocate for mandatory, minimum nurse-patient ratios.

1	2	3	4	5	6
Strongly Agree				Strongly Disagree	Undecided

10. Nurse-Patient Ratios are still relatively new. I think we should adopt a "wait and see" attitude.

1	2	3	4	5	6
Strongly Agree				Strongly Disagree	Undecided

11. Do you feel you have enough information to judge whether Nurse-Patient Ratios are an effective way to improve the nursing shortage and address quality of care issues?

Yes [] No []

Nurse-Patient Ratios:

A discussion paper



12. What additional information do you need to make an informed choice regarding the effectiveness of nurse-patient ratios?

13. Is there anything else you would like to tell us regarding nurse staffing, patient safety, nurse well-being? (Use reverse side of paper if required.)

THANK YOU!

Nurse-Patient Ratios:

A discussion paper



Advancing the Dialogue

Advisory committee

Dr. Gail Tomblin Murphy	
Larry LeMoal	SUN
Patricia Wejr	BCNU
Valerie MacDonald	ONA
Susan Hicks	ONP
Linda Silas	CFNU

Prepared for
The Canadian Federation of Nurses Unions

September 2005

Nurse-Patient Ratios:

A discussion paper



Recommendations

Recommendation One:

Further examination, consultation and applied research in a Canadian context needs to be undertaken to determine whether Nurse-Patient Ratios would be an effective means to improve patient safety and improve the well-being of nurses.

This includes:

- An examination of the experience of other jurisdictions that have implemented mandatory, minimum nurse-patient ratios or other forms of other mandatory nurse staffing arrangements to determine if these approaches to nurse staffing have been effective in improving patient safety and the well-being of nurses;
- An examination of the role of nurses in the development and monitoring of Nurse-Patient Ratios in other jurisdictions.
- An examination of how the differences in legislated scopes of practice among provinces and territories would influence the establishment of nurse-patient ratios;
- An examination of the impact of mandatory Nurse-Patient Ratios on collective agreements and the collective bargaining process;
- An examination of the benefits or drawbacks of including or excluding any of the regulated nursing occupational groups (RN, LPN and RPN) or other non-nursing support workers in the determination of appropriate nurse-patient ratios;
- An examination of tools or measures that can be used to consistently measure patient acuity and workload in various settings including acute care, long term care, community care, mental health, etc. to assist in the development of nurse-patient ratios.

Recommendation Two:

That, following further consultation, a Nurse-Patient Ratio Pilot Project be initiated in an appropriate setting to test the use of mandatory Nurse-Patient Ratio as a staffing model.