

**Toward Increased Integration
of LPNs into Health Authority
Employment Settings**

**Four Discussion Papers
Prepared by the Health Authorities
Health Professions Act
Regulations Review Committee**

July-November 2002

I. Introduction

Reporting to the Council of CEOs, the Health Authorities Health Professions Act Regulations Review Committee (the Review Committee) includes four senior executives with clinical/operational responsibilities, one member of the Labour Relations Policy Advisory Council, and one member of the Human Resources Leaders Group.

The Review Committee has considered numerous policy and legislative submissions from health professional colleges in the past 30 months. They most recently reviewed the policy submission from the College of Licensed Practical Nurses of Alberta (CLPNA), as well as the legislative amendment to increase the scope of practice of Registered Nurses (“nurse practitioners”).

At its May 28, 2002 meeting, the Review Committee discussed concerns from health authority stakeholders consistent with three themes:

- Categories of members
- Responsibilities of health authorities, educational institutions and the CLPNA for training and certification; and
- Performance by LPNs of additional restricted activities.

The Review Committee supports the CLPNA’s policy submission, and believes that they have responded effectively to all earlier concerns.

The Review Committee requested that developmental work be completed on identifying impediments and opportunities for increased deployment of LPNs, as well as principles of change management for deploying LPNs to their full scope of practice.

The contents of this discussion paper reflect the views of numerous health authority managers throughout the province, who were canvassed in June 2002, using a semi-structured questionnaire. This paper has been prepared to provide information and suggestions for health authorities to consider impediments, strategies and change management principles in more effectively deploying LPNs.

II. The Issue in Context

Many federal and provincial reports on health reform in the past several years have addressed human resource issues. The Kirby Commission ("The Health of Canadians -The Federal Role") includes a number of principles and recommendations for reform, including the current hierarchy of health care professionals: "Scopes of practice need to change in order to improve effectiveness and efficiency." (Part I, page 145).

The Romanow Commission ("Shape the Future of Health Care -Interim Report - February 2002) similarly recommends a larger and more independent role for health care providers and encouraging increased health human resource planning. The Canadian College of Health Services Executives has commented upon health human resources as a depleting asset: "... No amount of money, no well-planned system integration model can replace the need for sound human resource planning and support... Unless actions are taken, Canada will experience a shortage of between 60,000 and 110,000 registered nurses by the year 2010."

The Canadian Healthcare Association completed a summary of recent provincial and territorial health system reports, including Quebec, Saskatchewan, Alberta, British Columbia, the Northwest Territories and New Brunswick. All reports address the need for increased health human resource planning and better utilization of existing health care professionals.

There are approximately 23,000 RNs in Alberta and 4,700 LPNs. The authors of the (Alberta) Premier's Advisory Council on Health (Mazankowski) report entitled "A Framework for Reform" made a number of relevant comments:

"... regional health authorities indicate that there is a shortage of about 1950 nurses for 2001/2002. This trend is expected to continue for the next three years, which means Alberta could be short 6000 nurses by 2003/2004. Alberta's nursing workforce is also aging; the average age of nurses is 43.4 years and close to 30% of them are over 50. More than 25% of the nursing workforce is slated for retirement in the next decade..."

"... Some work done by nurses could be done by licensed practical nurses. There likely also are extended roles other providers could play in aspects of health care such as mental health, community programs, or health promotion..."

Unfortunately, there are a number of barriers in place. While many of the professional organizations talk positively about the need to work together, in reality, they seem unwilling to give up parts of their "scope of practice" unless there is some corresponding compensation. While some professionals are interested in expanding their scope of practice at the "higher" end of more complex services, they are unwilling to give up any services at the lower end where technicians and assistants could perform the work.

In some cases, legislation is a barrier... In other cases, union contracts require the use of particular health providers even though others could probably do the work and at less cost... powerful unions and health organizations may have, at times, acted as barriers to change unless they see those changes to be in the best interests of their members." (pages 32 to 34).

The Canadian Institute for Health Information reported (2002) that Alberta's LPN/RN rate per 100,000 Canadians was 15%, whereas the Canadian average was 21%. British Columbia had the lowest rate of LPNs in the workforce at 13%, whereas Newfoundland had the highest at 34%.

III. Overview of LPN Competencies – Present and Future

(i) CLPNA Submission

Under the HPA, "restricted activities" are health procedures or services that require specific competence to be performed safely. Regulated members must limit themselves to restricted activities they are competent to perform and appropriate to their area of practice and the procedure being performed. The performance of restricted activities is limited by the competencies and practice standards of the profession.

In the new legislation, which may come into force in the fall of 2002, LPNs with Basic Authorization will be able to *continue to perform* restricted activities that are within their current scope of practice, including:

- Administering subcutaneous injections
- Removing nasal pharyngeal suction catheters.
- Inserting and removing oral pharyngeal suction catheters.
- Inserting and removing urethral catheters.
- Inserting vaginal suppositories and ointments.
- Inserting vaginal catheters.
- Inserting rectal suppositories.

- Inserting devices for the purpose of administering medications or solutions for the purpose of elimination.
- Removing nasal gastric tubes
- Inserting tubes for feeding.
- Inserting anticoagulant medication into established peripheral ports or locks.
- Administering diagnostic imaging contrast agents.
- Administering nitrous oxide as ordered, under supervision.

LPNs with **Additional Authorization** will be able to *continue to perform* all activities requiring Basic Authorization plus:

- Starting intravenous lines
- Inserting nasal gastric tubes.
- Inserting or removing instruments, devices, fingers or hands beyond the cartilaginous portion of the ear canal for the purpose of syringing ears.
- Inserting or removing instruments, devices, fingers or hands beyond the point in the nasal passages where they normally narrow.

LPNs with **Advanced Authorization** will be able to *continue to perform* all activities requiring Basic Authorization and Additional Authorization plus:

- Removing a portion of a corn or callus in the performance of foot care
- Inserting sponges, irrigation and suction devices, mechanical retractors or fingers as retractors into an incision, under supervision.
- Inserting anticoagulant medication into established central ports or locks.
- Applying casts to set or reset a fracture, under the supervision of a physician.
- Inserting and removing orthopedic devices, under the supervision of an authorized practitioner.

The CLPNA has proposed **new** restricted activities that LPNs may perform:

- (i) Intramuscular injections: LPNs who graduated after June 2001 are proposed to be able to complete this restricted activity in the future with "Basic Authorization." LPNs who graduated prior to June 2001 will require post-basic education.
- (ii) Intradermal injections: a training program will be piloted in June 2002 for LPNs to complete this restricted activity as an "Advanced Authorization."

- (iii) **Vaccinations:** LPNs will be able to complete this restricted activity as an "Advanced Authorization" upon completion of a provincial certification program in immunization.

The College of Licensed Practical Nurses of Alberta (CLPNA), working closely with public health specialists, has developed a comprehensive immunization certificate course. This course will be available to employers to deliver to relevant LPNs, in conjunction with the CLPNA.

The Health Authority Review Committee supports LPNs completing these restricted activities in the future, and recognizes that many health authorities will be looking to LPNs to assist in providing immunizations, as early as the fall of 2002. LPNs with these additional competencies should initially practice in inter-disciplinary team settings.

(ii) Survey of Alberta Practices

The University of Alberta Population Health Laboratory completed a study in 2002 for the CLPNA dealing with numerous issues surrounding deployment and utilization of LPNs. The study involved contact with LPNs in all Health Authorities and Provincial Boards, and other areas of the health system. It dealt with nursing processes and practices, intentions with respect to retirement, employer and colleague attitudes, and perceptions whether employers were deploying LPNs to their full scope of practice and knowledge.

There was a 43% response rate to the survey, with representative samples from each of the health regions and boards. 63% of respondents worked in acute care hospitals, 23% worked in continuing care, 9% in community agencies, and the balance were employed in physicians' offices and clinics.

Among the relevant conclusions from the study were:

- The average age of LPNs is 46. One-third will retire within the next nine years.
- 33% of respondents believe they were fully utilizing their knowledge, skills and clinical judgment.
- RHAs outside Edmonton and Calgary are perceived by respondents to be doing a better job of utilizing LPNs.
- LPNs believe they are held in very low regard by Registered Nurses as a group, and to a lesser extent, by their employers. RNs and employers seem to value LPNs as long as they stay within existing parameters and do not engage in activities traditionally within RNs' "scope of practice."

- LPNs who believe they are undervalued are practicing far fewer of the 52 higher-level LPN skills and competencies. The percentage of "undervalued" LPNs practicing certain skills is between a third and one-half less than their "valued" counterparts.
- Only 45% of today's LPNs say they would recommend the profession as a career. 74% say they would recommend the profession as a career if their potential contributions to the health care team (in part through deploying them to "full scope") were increased.

IV. Review of the Literature

The Calgary Health Region (CHR) approached the Alberta Heritage Foundation for Medical Research in 2001 to obtain advice on the appropriate skill mix/staff mix of RNs and LPNs in routine healthcare. The CHR employs about 6800 RNs and 340 LPNs.

Forecasts by the CHR indicated an increased demand for RNs due to loss of existing staff and increased volume of health services. The CHR expressed interest in whether more LPNs could be incorporated into its staffing models. Increased numbers of LPNs was seen as a means to meet an expected shortfall in nursing care, and would not replace RN positions. There was particular interest in changing nursing skill mix in the sub-acute care and mental health areas.

The objectives of the review were to:

1. Summarize the shared and unique competencies of RNs, LPNs and RPNs.
2. Review empirical research that has examined the relationship between skill mix of RNs, RPNs and LPNs and client/patient outcomes.
3. Review empirical research on the relationship between skill mix of RNs, RPNs and LPNs and outcomes of different client/patient groups in specific areas such as acute care, sub-acute care, long-term care, community care and home care.
4. Comment on any implications for the use of RNs, RPNs and LPNs.

A committee including representation from the College of Licensed Practical Nurses of Alberta, the Alberta Association of Registered Nurses, the Registered Psychiatric Nurses Association of Alberta, the Calgary Health Region and Alberta Health and Wellness oversaw the study.

The 1997 National Nursing Competency Report addressed shared competencies between the three nursing professions. Competencies include knowledge, skills, attitudes, values and judgments. Depending upon the province, between 50 and 70% of competencies were found to be shared between the three groups. The percentage varied with the health care setting and classification of patients. The nursing groups similarly had many commonalities in their level of autonomy, particularly in dealing with stable patients.

The AHFMR study also quoted an AARN literature review conducted in 1995, dealing with the skill mix of nursing staff and patient outcomes. The AARN review concludes that:

"... it is difficult to conclude that staffing mix alone has a direct relationship to patient mortality. We can, however, confidently state that positive interdisciplinary relationships, effective communication and coordination among team members and professional autonomy have a distinct effect on patient mortality."

The AHFMR review suggests that there is at present little in the literature to assist health authorities to manage expected changes to the nursing workforce. No study was located to address the issue of whether there is separation along the continuum of delivery of patient care between the competencies of the three nursing groups. The studies that are available tend to have only marginal relevance to practical issues faced by health authorities, and some have methodological limitations.

The reviewers note that, while no related health outcome measures have been obtained, clearly much lower RN/LPN and RPN/LPN ratios than those in Alberta are a reality for other parts of the country. The AHFMR review concludes by stating that local decisions, rather than reliance on findings and recommendations in the available literature, should guide human resource planning in health authorities.

V. Legislative and Collective Bargaining Considerations

(i) Legislative

The Regional Health Authorities Act and Regulations do not impact directly on human resource planning or the deployment of LPNs.

The Communicable Disease Regulation under the Public Health Act provides that:

"A medical officer of health, may in exercising his powers in carrying out his duties under the Act and this Regulation, use the assistance of community health nurses and inspectors."

For the purpose of this Regulation, a *"community health nurse"* means a registered nurse who is employed by a local board (reflecting the health unit boards that were disestablished when the Regional Health Authorities Act and Regulations were proclaimed) or in the Department (of Health and Wellness).

The Operation of Approved Hospitals Regulation under the Hospitals Act requires that: *"Adequate graduate nurse coverage shall be provided at all times in the hospital."* A graduate nurse is considered to be the same as a Registered Nurse. This legislated reference may impact upon staffing complements in small acute care hospitals.

Continuing care facilities in Alberta are bound by the 1985 Nursing Homes Act and Regulations (for "nursing homes") and the 1980 Hospitals Act and Regulations (for "auxiliary hospitals"). This legislation is very prescriptive, including an obligation for a particular nursing complement and number of nursing hours per resident per day:

"1 (l) "nurse" means a registered nurse, a certified graduate nurse, or a registered psychiatric nurse

12. An operator shall obtain the services of the following persons for each nursing home operated by him:

(b) subject to section 13, a director of nursing;

(2) All persons referred to in subsection (1) shall be employed by an operator on a full time equivalent basis, except where this Regulation permits their services to be provided or obtained on a call, consulting, part time or other basis.

13 (1) The person employed as the director of nursing for a nursing home must be a registered nurse or a certified graduate nurse.

- (2) *The person employed as the director of nursing for a nursing home shall not be assigned any other duties or responsibilities in a nursing home in addition to those of director of nursing except that*
- (a) *a nursing home that has a rated capacity of 60 or fewer beds, may assign to the person employed as the director of nursing the duties and responsibilities of the administrator for the nursing home, and*
 - (b) *the Minister may authorize the operator of a nursing home that has a rated capacity of 60 or fewer beds to assign to the person employed as the director of nursing, duties and responsibilities of nursing services and personal services staff.*
- 14 (1) *An operator shall have at least one nurse on duty at all times in his nursing home, and if at any time none of the nurses on duty are registered nurses or certified graduate nurses, the operator shall ensure that a registered nurse or certified graduate nurse is on call during that time.*
- (2) *In addition to nurses, an operator shall employ other persons as his nursing and personal services staff in a number and having qualifications that enable the operator to provide the minimum level of nursing and personal services referred to in subsection (5) to each resident of his nursing home.*
- (3) *An operator shall designate a person as the charge nurse for his nursing home for each shift.*
- (4) *Subject to this section, an operator shall have at least 2 members of his nursing and personal services staff on duty at all times in his nursing home.*
- (5) *An operator shall cause his nursing and personal services staff to provide an average of at least 1.90 paid hours of combined nursing and personal services per resident per resident day in his nursing home.*
- (6) *An operator shall ensure that at least 22% of the total number of paid hours of combined nursing and personal services required to be provided by this Regulation is provided by nurses."*

This legislation arose in part from the 1982 Report and Recommendations of the Alberta Nursing Home Review Panel, where serious concerns were expressed about the need for improved care, training and educational programs in nursing homes. One could infer from the contents of the report and recommendations that the legislated presence of nurses, in addition to other staff, was intended to ensure a higher quality of care in nursing homes.

Yet, LPNs were not a self-regulating profession at that time, had considerably less educational preparation, and were not obligated to participate in continuing competency programs. Nursing homes in the 1970s had relatively few Registered Nursing Assistants (LPNs) or regulated health professionals.

(ii) Collective Bargaining

The key clause in the Multi-Employer/UNA (Facility) Collective Agreement that poses a barrier to increased utilization of LPNs in assigning charge responsibilities is Article 16.01(d):

"Where as of March 4, 1997, the person in charge of a ward or unit on a specific shift was a Registered Nurse or Registered Psychiatric Nurse, the person designated in charge of that ward or unit and specific shift will continue to be a Registered Nurse or Registered Psychiatric Nurse."(page 40)

Employers have identified situations such as a continuing care setting on the night shift, where they would like to utilize LPNs in an in-charge role, but are prevented from doing so by this article. Article 16.01(a) requires that a *person* be designated in charge of a ward or unit and, without Article 16.01(d), that person could be another professional such as an LPN, Physical Therapist, or another staff member who might be appropriate, given the nature and focus of the unit.

Article 36, dealing with Professional Responsibility, provides an outlet for RNs to express their concerns regarding utilization of LPNs and their opinions regarding the impact on patient care. This Article gives RNs, through the Professional Responsibility Committee, an opportunity to take their issues before the Governing Board of the Health Authority if the issue is not resolved to their satisfaction. As utilization of LPNs increases, it is likely that health authorities will see increased PRC activity in this area.

While the UNA and AUPE Collective Agreements do not contain any references or restrictions related to "bargaining unit work", UNA has filed grievances in situations where a task, shift or position, previously completed by an RN is assigned to an LPN. To date, they have been unsuccessful in all of the "bargaining unit work" grievances that have progressed to arbitration; however, they continue to file them.

There are no "person in charge" references in the Multi-Employer/UNA (Community) Agreement that pose a barrier to increased utilization of LPNs. However, the Community Agreement has a Professional Responsibility Article that similarly may be used by the UNA to express their concerns regarding increased utilization of LPNs. Assignment by health authorities to LPNs of responsibility for immunization, expected this fall, will likely result in increased PRC and grievance activity.

Some Employers have a provision in their collective agreements under the management rights clause requiring that they exercise their rights in a "fair and reasonable" manner. The argument that UNA advanced when the St. Michael's Health Centre in Lethbridge issued layoff notices to some of their RNs (as part of a restructuring that would increase the LPN/RN ratio), was that the restructuring would reduce the level of RNs to a point that is "unreasonable". UNA referenced the 22% level contained in the Nursing Home Act and argued that, as a more acute care facility, St. Michael's should reasonably have a higher proportion of RN staffing levels than 22%. On this basis, UNA was successful in gaining a court injunction, preventing the layoffs until the issue is resolved through arbitration. The arbitration hearing on this matter has concluded, but the award has not yet been issued. This issue directly impacts a minority of Employers, as the Multi-Employer Agreements do not contain comparable language.

VI. Perceived Organizational Impediments

Numerous telephone contacts were made with health authority managers throughout the province. A semi-structured interview format was used. The health authority managers presented common themes in terms of impediments to greater utilization of LPNs:

- United Nurses of Alberta Grievances (most frequently mentioned): As noted previously, UNA often launches grievances and/or responds aggressively to any perceived encroachment upon RNs' "scope of practice."

Management personnel in the facility sector noted that they are often inundated with grievances when attempting to more fully deploy LPNs to the full scope of their practice. One example noted was the decision to replace an RN who called in ill, on a short-term basis, with an LPN who was immediately available. This precipitated a series of grievances. Another example is "working to rule" in response to program changes, which result in modifications of staff complements.

- Attitudes and Values of Nurse Managers: many LPNs are keen to assume additional responsibilities, but their managers are actively or passively resistant in response to management direction.

Similar to physicians, Registered Nurses are seen to be the "gatekeepers," by comparison to partners in the delivery of facility-based health care. Some Nurse Managers are quite tolerant of RNs who are gaining work experience, skills and competencies, but may be highly critical of LPNs in the early stages of their careers. Many health authorities provide formal, structured mentorships for Registered Nurses lasting up to 12 months, whereas LPNs are expected "to hit the ground running."

In some instances, Nurse Managers believe that the "acuity of the patient population is simply too high to be able to deploy LPNs." The term "acuity" is not easily or objectively defined.

Nurse managers often encounter a surplus of students who require clinical experience as part of their education. They usually prioritize clinical placements on the basis of level of the students' education. That is, students who have higher education are more often provided with placements.

LPN students require clinical settings where they are able to work to their full scope of practice. If the environment does not offer this opportunity, the student's educational experience will be compromised.

- Misperceptions about LPNs' Current Scope of Practice: this includes a lack of understanding of how the education of LPNs has been significantly enhanced since 1987, changes to the scope of practice in 1997, the mandatory upgrading of all LPNs in 1999, and implementation of continuing competency programs.

Comments may be made that increased deployment of LPNs and utilization to their full scope will result in compromised health care, increased medication errors, liability concerns and poorer quality nursing practice. Yet, there is no documented evidence to support that these consequences occur.

- Attitudes and Values of Nurse Colleagues, Organizational Culture and Readiness for Change: including the attitude that "LPNs, as lesser skilled workers, should not assume duties that are properly a nursing role." This is also demonstrated by some colleagues in the form of academic elitism (university vs. community college education).
- Resistance on the Part of Some LPNs: who are personally uncomfortable assuming additional responsibilities, and thus oppose their colleagues' initiatives. This may be caused by a historical failure to deploy these LPNs to full scope, a lack of support for their transition, and/or increased workloads.
- Unclear Communication: about the merits of deploying all regulated health professionals to their full scope of practice. LPNs need to be involved in planning and implementation activities that impact upon their job descriptions, roles and relationships with RNs. They may feel overwhelmed by more vocal and assertive RNs in committee or project meetings.
- Lack of Understanding of Change Management Principles: including changing staff complements solely to reach financial and staffing targets, without communicating the rationale, offering opportunities for feedback and/or providing ongoing support and assistance.
- Perceptions of LPNs as "Support Workers": in part by virtue of their history from the post World War II period as "auxiliary workers" and also because of their representation as "General Services Support Workers" in the AUPE bargaining structure. Some in the health system believe that LPNs must be supervised by or work under the direction of RNs, however this supervision requirement was abolished in 1997. Like all regulated health care professionals, LPNs are accountable to work within their scope of practice and their employers' policies and procedures.
- Compensation: reluctance to allow LPNs to assume additional duties or seek educational upgrading by virtue of concern that they will seek additional compensation. This must be seen in context compared to the significantly higher salary and benefits provided to RNs under the current collective agreement.
- Attitudes of Other Health Professionals: who may misunderstand the LPN scope of practice and/or be concerned about the potential for overlap.
- Overall Morale, Productivity and Retention Issues in the Health Workforce: and the perception of many regulated health professionals that they are overworked, and not valued or fully utilized.

- Misquoting research to promote a certain viewpoint: there are numerous research studies from Canada, the United States and Commonwealth countries that deal with RN/LPN staffing ratios and health outcomes. As noted previously, the research is largely inconclusive and in many instances not applicable to the Alberta health care environment.

VII. Introduction to Change Management Principles

There is a significant amount of literature dealing with change management principles. Strategies include:

- Dissatisfaction with the present.
- Setting stretch goals.
- Seeing the need for specific changes.
- Accepting that something needs to be done now.
- Building commitment through a coalition.
- Celebrating successes and milestones.
- Providing continual feedback.
- Measuring and evaluating.
- Monitoring for “backsliding”.

John Kotter, a pre-eminent change management theorist (*Winning at Change, "Leader to Leader, No. 10, Fall 1998"*), proposed “Eight Steps to Transform Your Organization” that may be applicable to health authorities in addressing LPN scope of practice issues:

- "1. *Establish a Sense of Urgency*
 - *Examine market and competitive realities*
 - *Identify and discuss crises, potential crises, or major opportunities*
2. *Form a Powerful Guiding Coalition*
 - *Assemble a group with enough power to lead the change effort*
 - *Encourage the group to work as a team*
3. *Create a Vision*
 - *Create a vision to help direct the change effort*
 - *Develop strategies for achieving that vision*

4. *Communicate the Vision*
 - *Use every vehicle possible to communicate the new vision and strategies*
 - *Teach new behaviors by the example of the guiding coalition*
5. *Empower Others to Act on the Vision*
 - *Get rid of obstacles to change*
 - *Change systems or structures that seriously undermine the vision*
 - *Encourage risk taking and non-traditional ideas, activities and actions*
6. *Plan for and Create Short-Term Wins*
 - *Plan for visible performance improvements*
 - *Create those improvements*
 - *Recognize and reward employees involved in the improvements*
7. *Consolidate Improvements and Produce Still More Change*
 - *Use increased credibility to change systems, structures, and policies that don't fit the vision*
 - *Hire, promote, and develop employees who can implement the vision*
 - *Reinvigorate the process with new projects, themes, and change agents*
8. *Institutionalize New Approaches*
 - *Articulate the connections between the new behaviors and organizational success*
 - *Develop the means to ensure leadership development and succession."*

VIII. Preliminary Recommendations

Health authority management personnel throughout the province presented the following suggestions, consistent with an "*Assess, Plan, Implement and Evaluate*" approach. These options, which are not easily amenable to objective performance measures, require various degrees of operational, financial and organizational resources:

- Establish senior executive support and preferably have the Health Authority Board *publicly express* their commitment to the potential benefits of deploying all staff, including LPNs, to their full scope of practice.

These benefits may include effectively addressing shortages of RNs and LPNs, increased morale and productivity, improved quality of worklife, greater retention of existing staff, improved teamwork, a more positive image from a recruitment perspective, less absenteeism, increased emphasis on training and mentoring, and increased cost effectiveness.

- Have Executive and Senior Management set overall goals, yet assign the responsibility for making the transition to involved managers and line staff. Form working groups of opinion leaders who will be able to address issues throughout the process, with the understanding that "the status quo is not an option"
- Address nurses' dual loyalties to their association (AARN) and union (UNA) in the change management process as it relates to the potentially divergent views of these organizations regarding increased LPN utilization.
- Enlist the assistance of nurse educators to work with staff by providing in-services, mentoring opportunities, and the possibility to speak in confidence about the transition. Nurse educators can be significant "champions," and provide assistance with implementation.
- Change the staff mix at a time of other program changes, program movement between units, or expansion of services. If at all possible, replace RNs with LPNs by attrition and/or by eliminating or significantly reducing RN overtime.
- Consider controlled pilot projects, by comparison to wholesale changes. Changes to LPN and RN job descriptions should be made concurrently, in a complimentary fashion with input and participation from RN and LPN representatives.

- Make other changes at the same time to benefit morale and quality of worklife. Consider moving to staffing models where RNs and LPNs assume full responsibility for a cohort of patients, within their respective scopes of practice. Showcase health care settings that demonstrate particular success.
- Implement a strategy dealing with RNs and LPNs who are unable or unwilling to make the transition. Monitor closely for signs of inadequate or inappropriate job performance. Publicly commit to working with all staff through the process and consider a reasonable "safety net" and negotiation of options for those who are unable to cope (e.g. transfer, retirement, voluntary demotion, redeployment, reclassification, etc.)
- Comprehensively address concerns about liability and quality of care. RNs may perceive their liability for LPNs' actions, yet LPNs are self-regulating and obligated to have their own liability insurance.
- Provide LPNs with assertiveness training to better deal with RNs, physicians and administrators, and move beyond a subservient, auxiliary role to more fully participate in the process.
- Involve the LPN profession and staff from various disciplines in the preparation and formalizing of new LPN job descriptions
- Attempt to obtain physician cooperation by involving the Authority's Medical Director, Chief of Staff and key opinion leader physicians
- Invite the AARN and CLPNA to make joint presentations and assist in implementation. The two Colleges are working on a joint document dealing with scopes of practice and collaboration, which should be available in the fall of 2002.
- Develop comprehensive communications and negotiations strategies to work with the United Nurses of Alberta on this issue.
- Ensure comprehensive documentation, and provide objective information in response to fears and misperceptions (such as with immunizations, the reported 0.01% likelihood of an anaphylactic reaction)
- Carefully monitor quality of worklife indicators, including patient outcomes and satisfaction, use of casual and long-term illness leaves, WCB and disability claims, staff turnover and vacancy rates, occupational injuries, number of grievances, etc.

- Ensure that best practices in one area of the region are communicated elsewhere in the region. Encourage full scope of LPN practice at smaller facilities and transfer the "lessons learned" to units at larger facilities.

IX. Next Steps

This paper provides information to allow Health Authorities to consider potential opportunities and impediments to moving toward increased integration of LPNs into Health Authority employment settings. Through discussions with Health Authority representatives, potential strategies and change management principles have also been identified.

At their July 4, 2002 meeting, the Review Committee recommended that Health Authorities adopt a consistent approach in implementing the recommendations. The Review Committee recognizes that each Health Authority will apply the principles in the report in ways that accommodate their unique circumstances. Consistent adoption of these principles should increase the likelihood that labour relations and other barriers can be successfully addressed.

To achieve this consistency, the Council of CEOs has approved the Review Committee undertaking further consultations to develop *implementation guidelines*. The Review Committee is interested in seeking a wide variety of feedback, particularly on operational implications. Your comments are invited.

**Proposed Implementation Guidelines for Deploying
Licensed Practical Nurses to Their Full Scope of Practice**

**- A Supporting Discussion Paper Prepared by the Health Authorities
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October 11, 2002**

I. **Introduction**

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In May 2002, the Review Committee requested that developmental work be completed to identify the impediments and opportunities for increased deployment of LPNs, as well as principles of change management for using LPNs to their full scope of practice. The first discussion paper entitled "*Toward Increased Integration of LPNs into Health Authority Employment Settings - July 2002*" was prepared as a result. This paper was reviewed and endorsed by the Council of CEOs.

At their July 2002 meeting, the Review Committee recommended that Health Authorities adopt a consistent approach in *implementing the recommendations*. The Review Committee recognizes that each Health Authority may consider applying the principles in the report in ways that accommodate their unique circumstances. Consistent adoption of the principles should increase the likelihood that labour relations and other barriers can be successfully addressed.

To achieve this consistency, the Council of CEOs approved the Review Committee undertaking further consultations to develop a second set of discussion papers, dealing with implementation guidelines. This paper advances the concepts contained in the first discussion document.

This paper is intended to be a companion document to the "*Recommended Implementation Guidelines for Deploying Licensed Practical Nurses to Their Full Scope of Practice*." The Council of CEOs approved both documents on October 8, 2002.

II. **Methodology and General Comments**

A semi-structured interview format was (again) used in discussions with over 30 health care managers, senior managers and executives throughout the province, as well as other provincial jurisdictions. All respondents commented about the significant potential for LPNs to be deployed more effectively. They viewed LPNs, particularly those who have graduated in the past five years, as uniformly well educated, with strong theoretical knowledge bases, and highly competent.

Respondents noted that LPNs are proportionately under-represented (relative to RNs) and "under - deployed" in the majority of health authority settings. These managers spoke about "wasted resources and talent," within the overall context of underutilizing other health care practitioners, particularly RNs. Reasons commonly stated for not deploying LPNs more effectively include, in approximate rank order:

- Overt and covert resistance from some health professionals, particularly at a time of significant shortages in certain areas and attempting to address morale and productivity issues.
- The uncertainty about the implications of health reform for nursing professionals.
- Difficulty in making changes to have some RNs moving beyond their existing roles and comfort levels, including their historically strong attachment to administering medication.
- Impediments caused by the provisions of collective agreements and perceived opposition from the UNA.
- Legislative restrictions (Public Health Act, Hospitals Act and Nursing Homes Act).
- A lack of understanding on the part of some stakeholders of LPNs' current and proposed scopes of practice.
- The perceived "acuity" and "highly specialized" nature of the patient/client population.
- "Historical reasons," in large measure due to the prevailing organizational culture and professional turf protection.
- Overall staff fatigue resulting from many changes since regionalization, and a desire for stability.
- The erroneous perception that LPNs must work under supervision, most often by an RN. The term "supervision" implies that the supervisor is ultimately accountable.
- Concerns about liability and diminished quality of care.
- Nursing delivery systems that are based on RNs providing or being responsible for primary care and/or or total patient care.

- The difficulties in recruiting LPNs in certain areas of the province. Many LPNs are nearing retirement, so there is a need to consider strategies to ensure an appropriate supply.
- The lack of educational support and resources in some employment settings to support and implement change.
- The assumption that the best response to minimal staffing patterns is to deploy an RN, as he/she is able to fulfill all required nursing duties.
- The virtual absence of authoritative literature linking LPN staffing to patient outcomes. Patient classification, nursing workload and resource intensity weighting measurement systems are complex and cumbersome, as well as often costly to administer. These instruments are sometimes perceived to lead to invalid results and conclusions.
- Resistance from some physicians, who believe that it is more efficient to have "one nurse (RN) to consult with" during medical rounds about all their patients.
- The erroneous perception that utilizing LPNs to their full scope of practice will necessarily equate to changes in staff mix.

In part as a result of not deploying health care practitioners most effectively, the health system incurs significant and unnecessary costs in terms of poor morale and job satisfaction, low productivity, high staff turnover, increased illness and injury rates, expensive reliance on an already overburdened nursing profession to perform significant overtime, and an overall "under - challenged" workforce.

The August 2002 Final Report of the Canadian Nursing Advisory Committee notes that Canadian nurses work almost a quarter of a million hours of overtime each week, the equivalent of 7,000 full-time jobs per year. Over the course of a year, more than 16 million hours are lost to injury and illness, the equivalent of almost 9,000 full-time positions. If the rate of absenteeism among nurses was reduced to that of the rest of the labour force, some 3,500 full-time nursing positions would be regained.

The authors of this report commented on scope of practice and non - nursing tasks:

"Rather than maximizing all nurses' scopes of practice, we have created a situation where, almost as routine, we expect nurses to reduce their scopes of practice and focus downstream rather than up... We send mixed messages to nurses all the time when we ask them to stop the highly skilled work of nursing to carry out non-nursing tasks. We say there is a shortage of nurses, but every day we put nurses in situations where an unwritten but significant part of their job description is that they roll back their scope of practice and put the "thinking" part of nursing on hold, while

they carry out the work of others. Licensed Practical Nurses, whose education includes the administration of medications, are prevented by employer policies in many jurisdictions from carrying out that aspect of patient care...

The time has come to put a halt to these employment practices and put forward the practice of every Licensed Practical Nurse in the country, every Registered Psychiatric Nurse, every Registered Nurse, and every other health professional. Although the divisions among nurses are established as a result of differing educational programs, it is clear that there is an overlay of rules and attitudes that prevents nurses from practicing to the full extent of their qualifications. Some of the shortages that afflict workplaces could be eliminated if nurses and other health care practitioners were permitted to work to their full scope of practice. We cannot afford to continue on this path, and we can use our precious resources much more wisely than we now do."

The restrictive provisions of the current UNA collective agreements (e.g. "nurse in charge" provisions) were often noted in the managers' comments. This is a particularly significant obstacle for smaller health care facilities. Despite the numerous benefits of using LPNs more effectively, managers commented that they were not eager to set precedent by contravening collective agreements.

Managers similarly noted the onerous provisions of the Nursing Homes Operations Regulation under the Nursing Homes Act (and its requirement for a 22% *Registered/Psychiatric Nurse* complement). The identified impediments are being dealt with by separate processes.

Most health authorities expend over 85% of their budgets on human resources. With the gathering momentum on health reform in Alberta, the effective and efficient use of all health care professionals, including LPNs, is an important component of health authorities' overall human resource management strategies. Although the potential cost savings cannot be quantified, they are likely substantial.

III. **Proposed Implementation Guidelines**

Respondents recommended implementation guidelines consistent with the following themes:

(i) Promoting Leadership by Health Authority Boards, Chief Executive Officers and Executive Committees

Boards, Chief Executive Officers and Executive Committees relate to each other in various ways, on different issues. As noted previously, each health authority will consider the merits of applying the principles in this report in ways that accommodate their unique styles and circumstances.

In a *traditional governance model*, Boards are responsible for identifying the vision. For this initiative to succeed, Boards should consider publicly expressing their commitment to the potential benefits of deploying all staff, including LPNs, to their full scope of practice. As a general principle, Boards are committed to ensuring the highest quality of patient care, by deploying the most efficient and cost-effective providers. Providers should be assigned on the basis of being most able to give appropriate care.

Providers should be utilized to their full capacity, and their competencies should be matched to the needs of the patient. The right provider should provide the right care at the right time and right location, to meet patient needs.

Boards should be clear in their articulation of goals for making maximum use of all health care professionals. There must be a clear understanding of the concept of "full scope of practice" and the inherent challenges. Boards should engender trust that the initiative is not designed to choose the lowest cost health care provider, but instead to respond to a much broader range of factors. This implies a commitment to the concept of quality, and performance and outcome measures.

In their communications, Boards should consider emphasizing the benefits of deploying *all health care professionals* to their full scope of practice, potentially including:

- In part, addressing staff shortages.
- Increased morale and productivity.
- A reduction in illness and injury rates.
- Improved quality of worklife.
- Greater retention of existing staff.
- A reduction in overtime.
- Improved teamwork.
- Greater success with recruitment.
- Increased emphasis on training and mentoring.
- Increased cost effectiveness.
- Improved quality of care, patient safety and patient outcomes.

In a *traditional governance model*, the responsibility for developing the action plan, implementation and evaluation rests with the CEO and Executive

Committee, with regular reporting to the Board, consistent with agreed upon performance indicators. Managers and supervisors must ensure clear communication of the vision, and provide the appropriate resources and support for planning, interpreting, implementing, ongoing monitoring, evaluating and making adjustments.

(ii) Clarifying the Definition and Importance of Using all Health Professionals to Their "Full Scope of Practice."

In order to set goals and pursue change management processes, it is first important to fully clarify health authority Boards' roles and responsibilities for the end results.

The *Minister of Health and Wellness* has publicly stated, and has formalized in the Health Professions Act, his commitment to having employers deploy health professionals to their full range of competencies. *Alberta Health and Wellness* impacts the appropriate discipline and category of care provider through legislation and policies; overall health authority budgets; setting performance measures, standards and benchmarking (in part through the business planning process); and by providing linkages with Alberta Learning and the educational sector.

Health authorities' roles in this area are to allocate budget allocations for departments and programs; determine staff deployment patterns; set job descriptions; and approve corporate directives, policies and procedures outlining duties and responsibilities. Health authorities also articulate their vision of the change management process and set clear expectations, outcome measures, and indicators of success.

Professional regulatory bodies impact scope of practice through registration, educational and experience entry requirements, continuing competency, ability to perform restricted activities, and supervision of unregulated workers. *Employers* and *unions* negotiate conditions of employment.

One of the historical functions of professional legislation has been to ensure that activities that may involve risk to the health, safety or financial security of the consumer, are provided only by regulated professionals. Previous health professional legislation attempted to achieve this by limiting the actions of professions, that is by establishing exclusive scopes of practice.

The HPA takes a different approach. The Act first identifies the activities that are seen as involving risk and labels them as restricted activities. It then sets out provisions whereby individuals can be authorized to perform these activities.

The term "scope of practice" has been replaced with "practice statements." Practice statements detail the commonly performed (but not exclusive) activities and services provided by a group of health professionals. Practice statements for the three nursing professional groups are noted in Appendix I. Practice statements in the legislation are not intended to address the nuances of competencies, skills, depth and breadth of knowledge, and other subjective concepts.

The term "scope of practice" is still almost universally used. This term is ill defined, inconsistently applied across health care settings, and frequently subject to misinterpretation. For the purposes of this discussion paper, a working definition of full scope of practice is:

"deploying health professionals to the full range of their roles, responsibilities and functions they are educated, competent and authorized to perform."

This definition encompasses *educational preparation, continuing competency, and the legislative authority* to conduct certain actions, particularly restricted activities under the HPA. As noted previously, scope of practice is also strongly impacted by organizational culture.

When used by some individuals when describing the deployment of LPNs, "full scope of practice" is commonly associated with performance of existing duties, plus the administration of medications. However, this statement is simplistic and erroneous, and presents considerable risks in terms of the change management process. This rationale gives rise to the perception on the part of some nurses that their contributions are less valued, when another professional group assumes "their" task of administering medication.

"Tasking out" professional nursing (RN, LPN and RPN) responsibilities can lead to the erroneous conclusion that duties can merely be divided up and reassigned to the most convenient and available regulated professionals (e.g. pharmacists, respiratory therapists and occupational therapists) and unregulated workers (e.g. personal care attendants and nursing aides).

References to the administration of medication as evidence of LPN "full scope of practice" may also prove contentious. Many RNs attach considerable symbolism and importance to medication duties and rituals. Medication delivery in the majority of urban and regional acute care and continuing care facility settings, with the exception of highly specialized and intensive programs such as critical care, has become highly automated. This results in a reduced potential for error.

Yet, many rural facilities still use "ward stock," which places a far greater onus on nurses to be highly accurate. Pharmacy professionals may offer considerable

assistance with making the transition to having LPNs administer medications, by providing mentorship and collegial assistance and advice, in a non-threatening manner.

The issues surrounding effective deployment of health care professionals must be seen in context, particularly as LPNs most often work in teams. Following on the recommendations of the Premier's Advisory Council on Health ("Mazankowski Report"), the health system is moving to a fuller consideration of the merits of "primary health care."

The Alberta primary health care projects have identified eight factors critical to forming successful inter-disciplinary teams:

- Selecting the right team members.
- Developing a common understanding of the vision and goals.
- Involving all members in planning and coordination.
- Defining roles and responsibilities.
- Communicating effectively.
- Providing adequate support for the teams.
- Conducting ongoing evaluation.

Leadership of teams should be based upon what is most appropriate for the group of patients and care setting. This change in philosophy is not easily implemented in practice, particularly when it involves historically lower status and lower paid staff.

(iii) Promoting a Greater Understanding of LPN Educational Preparation and Competencies vis-à-vis Patient Acuity and Complexity

In preparation for being regulated under the HPA, the CLPNA proposed policies in the spring of 2002. Many health authority comments on the CLPNA's policy submission under the HPA arose as a result of lack of understanding of LPNs' *current* skills and competencies.

While there are numerous definitions in use, competencies are health professionals' knowledge, skills, attitudes and judgment. The CLPNA, in partnership with Alberta Health and Wellness, prepared a "Competency Profile for Licensed Practical Nurses" in April 2000. This document was completed following consultations from 1997 to 2000 with health authorities, educational institutions, health care professionals, health professional associations in Alberta and other jurisdictions, and numerous private health care providers.

The current competency profile may be used:

- By LPNs to reflect on their skills and abilities, and to evaluate their competence.
- By other health professional team members to more fully understand LPN competencies.
- To develop job descriptions, performance expectations and conduct performance reviews.
- To guide curriculum development, teaching and evaluation.
- By the CLPNA to develop, monitor, and enforce standards of practice among their members.

The contents of the competency profile are noted in Appendix II.

"*Skill mix*" is a commonly used term, which similarly is often poorly understood. It refers to the relationship of staff education, competencies, skills, and abilities, relative to a defined patient population.

Respondents commented upon the well known observation that the increased acuity, complexity and turnover of patients in acute care hospitals and continuing care facilities present dilemmas in terms of arriving at an appropriate "skill mix." Many continuing care residents are increasingly frail, medically unstable, and have numerous co-morbid medical conditions.

There is no universally agreed upon, clear and defensible methodology to arrive at nursing workload measures, particularly in acute care hospital settings. In practice, decisions about skill mix are often made on an *ad hoc* basis of informed judgment and experience.

In the majority of instances, "the decision is already made" by virtue of the existing staff complement. Adjustments can only be achieved with great difficulty, over a lengthy period of time, with supervisors and managers being presented with many objections.

There is a need to re-examine the use of objective means of determining acuity levels and patient needs, and the resulting allocation of nursing staff to meet these needs. Decisions should be based on "best practice" evidence-based information.

There are widespread variances in practice between similar patients units within facilities, between facilities, and between health authorities. As a result, overall regional percentages (and targets) often lead to erroneous conclusions.

Skill mix decisions should be based upon (i) "what needs to be done" for patients by professional nurses, (ii) who is authorized to perform the necessary restricted activities, (iii) who will oversee case coordination, communication with the patient and family, and discharge planning, and (iv) the availability and expertise of other regulated and unregulated health professionals. Ongoing adjustments to the appropriate skill mix are necessary in order to respond to changing patient characteristics and conditions.

(iv) Developing, Approving and Implementing Comprehensive Descriptions of Required Competencies and Skills for RNs, LPNs and RPNs

The 1997 National Nursing Competency Report addressed shared competencies between the three nursing professions. Depending upon the province, a majority of competencies were found to be shared between the three groups, at the point of entry to practice. The percentage varied with the health care setting and classification of patients. The nursing groups similarly had many commonalities in their level of autonomy, particularly in dealing with stable patients.

There is often a tendency to focus on the abilities of LPNs, RPNs and RNs to perform certain *tasks*. (One manager commented that even young diabetic children can be taught the *task* of self-injecting insulin.) For the purposes of effective staff deployment, there is a need to focus on *competencies*, that is the *ability to lead and/or participate in inter-disciplinary healthcare professional teams, experience and expertise, independent judgment and clinical decision making.*

Respondents in the course of interviews for this discussion paper noted that the competencies often unique to RNs were:

- Dealing with patients with more complex medical and social care needs, with higher risks of negative outcomes.
- Working with larger groups and communities.
- Patient education, counseling and advocacy.
- Clinical leadership.
- Critical thinking.
- Case coordination.
- Research
- Resource management and utilization.

For example, the use of RN/LPN dyads or teams may enhance patient care in the critical care environment, by allowing RNs to focus on high-level patient needs and LPNs to focus on "hands-on" nursing care.

Within available staff resources, non-nursing tasks should be reassigned to appropriate non-regulated practitioners. These non-nursing tasks include cleaning equipment, making beds, portering patients, transporting blood and tissue specimens and results to and from the laboratory, ordering and distributing supplies, and readying equipment for procedures. LPNs, RPNs and RNs should be assigned full responsibility for a cohort of patients, consistent with their competencies in delivering quality care.

Some RNs may be understandably reluctant to give up "hands-on" patient care (where this is necessary) in favor of case coordination, and view LPNs' assumption of these duties as encroachment on their professional domain. Changes to LPN, RPN and RN competencies and skills should be made concurrently, in a complimentary fashion, with input and participation from LPN, RPN and RN representatives. On a case-by-case basis, managers and supervisors will need to determine whether LPNs, RPNs and RNs assume additional *tasks* and/or assume new *roles, responsibilities and competencies*.

The process of developing descriptions of competencies, including the ability of members of inter-disciplinary project teams to understand each other's roles, is arguably almost as important as the end result. These documents should include:

- A position summary.
- Key responsibilities in terms of competent practice (assessment, planning, implementation, evaluation and safety). Key responsibilities should be developed to reflect the intent of the Health Professions Act in the areas of patient monitoring and assessment, intervention planning, care plan implementation, intervention evaluation, documentation, administrative and operational support, professional responsibilities, and education and research.
- Ethical priorities and relationships with stakeholders.
- Professional conduct (organizational behavior and professional development).
- Supervision received and provided.
- Internal and external contacts.
- Results of actions, with outcomes and impacts.
- Qualifications (formal education, experience, professional affiliations, and knowledge, skills and abilities.)
- Critical thinking, judgment, decision-making, and knowing when to consult and collaborate.
- Supports available to assist in performing various tasks.

These documents need to be supported by comprehensive and current corporate directives, policies and procedures, which should be introduced prior to and concurrent with implementation. These factors should serve to reduce LPN, RPN and RN role ambiguity, and increase the possibility of successful change management.

Health authorities will soon assume responsibilities on behalf of the Alberta Mental Health Board. Consideration should be given to potential roles of LPNs in the delivery of facility - and community - based mental health services.

(v) Pursuing Change Management Strategies that Best Respond to the Prevailing Organizational Culture

Successful change management strategies need to focus on addressing impediments, overcoming resistance, reducing inter-professional rivalries, and promoting integration and teamwork. Executive and Senior Management must set overall goals. The responsibility and accountability for making the transition is then delegated to front-line managers and supervisors and their respective staff.

Changes cannot be made in an isolated fashion, focusing on one profession. Change management strategies may result in friction between some Diploma - prepared and Bachelor's - prepared RNs. It is important to address nurses' dual loyalties to their association (AARN) and union (UNA) in the change management process, given the potentially divergent views of these organizations regarding increased LPN utilization.

Labour relations are an important consideration. Health authorities as employers need to demonstrate their sensitivity to all healthcare professionals who may be impacted, especially nurses, by providing mentorship, potentially increased career opportunities, support and training. Comprehensive communications and negotiations strategies must be developed to work with UNA on local, regional and provincial levels. Health authorities also need to be attentive to relationships between unions (e.g. UNA and AUPE).

LPN/RNs staff ratios should preferably be adjusted at a time of staff vacancies, other program changes, program movement between units, enhancement of service delivery and/or expansion of services. Pilot projects should be considered where appropriate, by comparison to wholesale changes. This is a complex initiative, which requires a comprehensive understanding of the overall work environment, competencies of team members, and advantages and disadvantages of various service delivery models.

There is a need to implement strategies supporting healthcare professionals who are unable or unwilling to make the transition. Managers, supervisors and human resource professionals should publicly commit to working with all staff through the process and consider a reasonable "safety net" and options for those who experience difficulty coping. Options include transfers, retirements, voluntary demotions, redeployments and reclassifications.

Executive and senior managers should attempt to obtain physician cooperation and leadership by involving the Authority's Medical Director, Chief of Staff and key opinion leader physicians.

Human resource professionals should consider providing LPNs (and potentially other health care professionals) with communication and conflict resolution training to better deal with RNs, physicians and administrators. This should enable LPNs to move beyond a subservient, auxiliary role to more fully participate in the process. LPNs need to be supported to be able to provide high quality and respected input on medical and administrative decisions.

Many respondents commented upon the importance of addressing potential "patient safety" and quality concerns. Education and training are integral components of the change management process. RNs may perceive their liability for LPNs' actions, yet LPNs are self-regulating, accountable for their own actions, and obligated to have their own liability insurance. As a part of the change management process, it is important to ensure comprehensive documentation, particularly of unusual incidents. Objective information should be provided in response to fears and misperceptions (such as with immunizations, the reported 0.01% likelihood of an anaphylactic reaction).

Managers, supervisors and human resource professionals must monitor patient outcomes and satisfaction, as well as compliance with objective workload measurement standards. Quality of worklife "lag" indicators include use of casual and long-term illness leaves, WCB and disability claims, staff turnover and vacancy rates, occupational injuries, and the number of grievances.

Senior managers must ensure that best practices in one area of the region are communicated and implemented elsewhere in the region. As noted previously, the attainment of full scope of practice is in part dependent upon organizational culture and history. Yet, in some instances, it may be appropriate to encourage full scope of LPN practice in smaller facilities and/or units in larger facilities and transferring the "lessons learned" to other areas.

All respondents commented that accurate, effective and timely communication is paramount. This should be conducted through staff forums, newsletters, formal

coaching and mentoring, peer networking, and particularly through the assistance of nurse educators.

Nurse educators are often preoccupied with providing CPR and other mandatory recertifications. In many health authorities, nurse educators are a scarce resource, with many significant demands upon their time. If they are available and willing, nurse educators can work effectively with LPNs, and provide education, training in more of a "mentorship" (by comparison to a supervisory) role.

Nurse educators can work with staff by providing in-services, mentoring opportunities, and the possibility to speak in confidence about the transition. Nurse educators can provide considerable assistance to management with leading change and implementation.

The change management process should involve working groups of opinion leaders who will be able to address issues throughout the process. Senior and executive managers will need to provide support and direction.

Almost all nursing managers and supervisors are RNs; many are Diploma - trained. Canadian Institute for Health Information (CIHI) figures note that 65% of Alberta RNs are Diploma-trained, while the majority of new graduates have Bachelor's Degrees. As a result of their education, work experiences and collegial relationships, nursing managers and supervisors understandably bring certain perspectives in their views of LPNs' competencies and capabilities. These considerations need to be recognized during the change management process.

(vi) Working with the Three Professional Nursing Associations to Promote Their Leadership

The professional nursing associations (particularly the AARN and CLPNA) have conducted many joint presentations to various health authority audiences over the years. These presentations have provided information on roles, scopes of practice and accountabilities. They have been well received, and have provided a model of inter-professional collaboration.

Health authority managers and supervisors should continue to request nursing regulatory colleges' assistance in communicating, implementing and evaluating the change management process. Regions need to coordinate presentations by the three nursing associations to maximize efficiency.

These presentations have been and will continue to be useful as one tool in successful change management. Regions need to have clearly articulated visions and plans with respect to skill mix and full scope of practice, which must

be communicated by management and supervisory staff. Representatives of the three associations will then be able to provide a provincial perspective, as well as technical assistance and mentorship.

Clear and comprehensive position descriptions, supported by corporate directives, policies and procedures are imperative in successful change management. Representatives from the three nursing associations should be involved if reasonable and possible.

IV. **Next Steps**

The Council of Chief Executive Officers endorsed the contents of this supporting paper and the implementation guidelines. They requested that the documents be forwarded to health authorities for consultation.

Appendix I: Practice Statements for Licensed Practical Nurses, Registered Nurses and Registered Psychiatric Nurses from the Health Professions Act

In their practice, **licensed practical nurses** do one or more of the following:

- (a) apply nursing knowledge, skills and judgment to assess patients' needs,
- (b) provide nursing care for patients and families, and
- (c) provide restricted activities authorized by the regulations.

In their practice, **registered nurses** do one or more of the following:

- (a) based on an ethic of caring and the goals and circumstances of those receiving nursing services, registered nurses apply nursing knowledge, skill and judgment to
 - (i) assist individuals, families, groups and communities to achieve their optimal physical, emotional, mental and spiritual health and well-being,
 - (ii) assess, diagnose and provide treatment and interventions and make referrals,
 - (iii) prevent or treat injury and illness,
 - (iv) teach, counsel and advocate to enhance health and well-being,
 - (v) co-ordinate, supervise, monitor and evaluate the provision of health services,
 - (vi) teach nursing theory and practice,
 - (vii) manage, administer and allocate resources related to health services, and
 - (viii) engage in research related to health and the practice of nursing, and
- (b) provide restricted activities authorized by the regulations.

In their practice, **registered psychiatric nurses** apply nursing knowledge and skills and judgment and do one or more of the following:

- (a) work with individuals of all ages, families, groups and communities,
 - (b) assess physical, mental, emotional and spiritual health needs,
 - (c) develop diagnoses and plan, implement and evaluate nursing care, and
 - (d) provide restricted activities authorized by the regulations.
- (2) In their practice, mental deficiency nurses, with a focus on developmentally challenged individuals, apply nursing knowledge, skill and judgment and do one or more of the following:
- (a) work with individuals of all ages, families, groups and communities,
 - (b) assess physical, mental, emotional and spiritual health needs,
 - (c) develop diagnoses and plan, implement and evaluate nursing care, and
 - (d) provide restricted activities authorized by the regulations.

Appendix II: **Summary of the Contents of the CLPNA/ Alberta Health and Wellness Competency Profile – April 2000**

- **Nursing Knowledge:** anatomy and physiology, basic microbiology, basic pathophysiology, medical terminology, growth and development, basic nutrition, basic pharmacology, nursing science, and communication.
- **Nursing Process:** assessment, planning, implementation, and evaluation skills.
- **Safety:** fires, disasters, missing clients, bomb threats, universal precautions, personal protection devices, infection control, handling and disposal of sharps, dangerous goods, biohazardous waste, safe use of equipment, disinfection and sterilization techniques, restraints, body mechanics, dealing with aggressive behavior, abuse, occupational work practices, and reporting procedures.
- **Communication and Interpersonal Skills:** therapeutic relationships, communicating effectively, functioning as an effective team member, documentation and reporting, conflict management, time management, and clinical judgment.
- **Nursing Practice:** CPR, skills and procedures, admission procedures, client transfers, discharge of clients, vital signs, seizure activity, Activities of Daily Living, lifting and transferring patients, positioning and mobility, nutrition and hydration, managing client elimination, sterile techniques, dressing changes, and administering compresses, documentation, specimen collection and testing, effective bed making, application of equipment used, and post-mortem care.
- **Respiratory Care:** assessment and management of Airways, oxygen therapy, suctioning, respiratory treatments, tracheostomy care, and monitoring and maintenance of chest tubes.
- **Surgical Nursing:** preoperative teaching, preoperative care, postoperative care, postoperative teaching, care for wounds and tubings, and removal of staples and sutures.
- **Orthopedic Nursing:** nursing skills, effective cast care, application and monitoring of traction, and application of support devices.
- **Neurological Nursing:** neurological assessments, maintaining spinal precautions, and communicating with the client and family.
- **Cardiovascular Nursing:** knowledge of cardiovascular disorders, diseases and equipment.
- **Maternal/Newborn Care:** care and teaching, assisting in the labor and delivery process, prenatal and preoperative care and teaching, postpartum care and teaching, postnatal and post operative care and teaching, and newborn care.

- **Pediatrics:** knowledge and assessments, communicating and providing support, use of equipment, appropriate interventions and safety procedures, and ability to work in multidisciplinary teams.
- **Mental Health Nursing:** basic knowledge, prevention and intervention in suicide, substance abuse, mental health interventions, mental health treatments, and legal protocols and documentation requirements.
- **Emergency Nursing:** systems assessments, priority needs, initiation of nursing interventions, use of equipment, assisting physicians, communicating and providing support to family, and ensuring complete and proper documentation.
- **Gerontology Nursing:** aging process and health problems, communication and providing support, nursing interventions, working effectively with multidisciplinary teams, appropriate placements, safety procedures, and legal protocols and documentation requirements.
- **Palliative Care:** assessing physiological changes, effective pain management, psychological and emotional support, care and comfort measures, accessing support services, respect for the family, and post-mortem care and documentation requirements.
- **Rehabilitation Nursing:** knowledge and ability, assessment and provision of services, effective client/family teaching and support, working with interdisciplinary teams, an effective discharge planning.
- **Community Based Care:** legal protocols and documentation requirements, assessment of service and needs; nursing interventions, client referral and resources, adaptation to very work environments, and public education and teaching.
- **Clinic Based Nursing:** client needs and requirements, legal protocols and documentation, assisting the physician, client and nursing interventions, coordinating client referrals, and public and client education.
- **Occupational Health and Safety:** application of nursing process, health and safety in the workplace, liaison with health professionals, responding to emergency situations, and provision of support.
- **Medication Administration:** application of basic pharmacology to the administration of medications, processing physician orders, accessing resources and information, properly calculating dosages, proper administration of medications, monitoring drug effectiveness, proper storage and disposal procedures, and narcotics and controlled substances.
- **Infusion Therapy:** hypodermoclysis and blood transfusions.
- **Professionalism:** standards of conduct, scope of practice, standards of practice, professional ethics, policies and procedures, education and professional development, willingness to except change, and participation in nursing and clinical research.

- **Leadership Role:** leadership theory and concepts, structure and mandate of the organization, risk management, demonstration of leadership skills, knowledge of the planning process, knowledge of human resource management, coaching and mentoring skills, effective delegation, organizing and facilitating meetings, and developing and maintaining customer relations skills.
- **Advanced Education in Orthopedic Nursing:** demonstrating knowledge and application of concepts, application of orthopedic restraint devices, cast and splint care, and application and monitoring of traction.
- **Advanced education in Operating Room Nursing:** knowledge and application, scrub role, circulating role, assistance to the anesthetist, and application of the prep room role.
- **Advanced Education in Dialysis Nursing:** assessment and nursing care, and initiation, monitoring and discontinuing treatment.
- **Advanced Education in Neonatal Resuscitation.**
- **Advanced Education in Foot care.**
- **Advanced Education in Venipuncture.**
- **Educator Role:** nursing education, practical nursing, curriculum development and revision, various delivery methods, managing the learning environment, facilitation of learning, effective communication, evaluation of learning, participation in professional development, and evaluation of own performance.
- **Role in Ophthalmology Nursing:** surgical procedures, ophthalmologic patients, surgical asepsis, scrub assistant, laser procedures, assistance with circulating in the operating theater, and providing administrative support.

**Proposed Implementation Guidelines for Deploying
Licensed Practical Nurses to Their Full Scope of Practice
Prepared by the Health Authorities HPA Regulations Review Committee**

The Health Authority HPA Regulations Review Committee recommends that health authorities adopt a consistent approach to implement the recommendations contained in the discussion paper "Toward Increased Integration of LPNs into Health Authority Employment Settings - July 2002." The Review Committee recognizes that each health authority will apply the principles in the report in ways that accommodate their unique circumstances. Consistent adoption of these principles should increase the likelihood that labour relations and other barriers can be successfully addressed.

These implementation guidelines are meant to complement the attached discussion paper, which explains the concepts more fully and provides context.

(i) Promoting Leadership by Boards and Executive Committees

- Boards should consider articulating the vision and direction, the timeframe for identification of the issues, implementation and evaluation, critical success factors and the CEO's accountabilities. Boards and Executive Committees should publicly express their commitment to the benefits of deploying all staff to their full scope of practice.

(ii) Clarifying the Definition and Importance of Using all Health Professionals to Their "Full Scope of Practice"

- A working definition of this term is: "*Deploying health professionals to the full range of the roles, responsibilities and functions they are educated, competent and authorized to perform."*
- Full scope of practice for LPNs encompasses far more nursing competencies than present duties plus administration of medication.
- Leadership of inter-disciplinary teams should be based upon what is most important for the group of patients and care setting.

(iii) Promoting a Greater Understanding of LPN Educational Preparation and Competencies

- There is a need for a greater understanding of LPNs' current skills and competencies (knowledge, skills, attitudes and judgment).
- "Skill mix" is the relationship of staff education, competencies, skills and abilities, relative to a defined patient population. Decisions on skill mix should be based on objective, "best practice" research based information.

- Skill mix decisions should be determined by (i) "what needs to be done" for patients by professional nurses, (ii) who is authorized to perform the actions, (iii) who will oversee case coordination, communication with the patient and family, and discharge planning, and (iv) the availability and expertise of other regulated and unregulated health professionals.

(iv) Developing, Approving and Implementing Comprehensive Descriptions of Required Competencies and Skills for RNs, LPNs and RPNs

- Rather than being preoccupied with *tasks*, there is a need to focus on *competencies*, the ability to lead and/or participate in inter-disciplinary health care professional teams, experience and expertise, independent judgment and clinical decision making.
- Within available staff resources, non-nursing tasks should be assigned to appropriate non-regulated practitioners.
- The process of developing descriptions of competencies and skills, including the opportunity for members of inter-disciplinary project teams to understand each other's roles, is arguably as important as the end result.
- Comprehensive and current corporate directives, policies and procedures must complement the process and final products.

(v) Pursuing Change Management Strategies that Best Respond to the Prevailing Organizational Culture

- While the Executive and Senior Management set overall goals and targets, the responsibility and accountability for making the transitions should be delegated to front-line managers and supervisors and their respective staff.
- Health authorities as employers need to demonstrate their sensitivity to all health professionals who may be impacted. Managers, supervisors and human resource professionals should consider a reasonable "safety net" and options for those who experience difficulty coping.

(vi) Working with the Three Professional Nursing Associations to Promote Their Leadership

- Health authorities should encourage the three nursing associations to continue to conduct joint presentations. These presentations can provide important symbolism of inter-professional collaboration, role modeling and mentorship.
- The three professional associations should be involved, where realistic, in the preparation of position descriptions, as well as relevant corporate directives, policies and procedures.

/attachment

**Health Authority Health Professions Act
Regulations Review Committee**

**Toward the Development of Nursing Sensitive
Outcome Indicators for Health Authorities**

November 25, 2002

Introduction

Reporting to the Council of CEOs, the Review Committee has considered numerous policy and legislative submissions from health professional colleges in the past 30 months. They most recently reviewed the HPA policy submission from the College of Licensed Practical Nurses of Alberta (CLPNA).

In May 2002, the Review Committee requested that developmental work be completed to identify impediments to and opportunities for increased deployment of LPNs, as well as principles of change management for using LPNs to their full scope of practice. The discussion paper entitled "*Toward Increased Integration of LPNs into Health Authority Employment Settings - July 2002*" was prepared in response to the Review Committee's request. Subsequently, a discussion paper was prepared on "*Implementation Guidelines for Deploying LPNs to Their Full Scope of Practice.*"

While the impetus for addressing scope of practice and staff mix issues was the CLPNA policy proposal, the intent of this discussion paper is to address the three nursing professional groups: Licensed Practical Nurses, Registered Psychiatric Nurses and Registered Nurses.

Terms of Reference

A common sentiment among those interviewed for the discussion paper was that organizational changes which address scope of practice and staff mix need to be conducted within a framework of baseline and ongoing evaluation. Reliance upon patient satisfaction surveys, codes of ethics and standards of practice, accreditation outcomes, health professional College registration and disciplinary processes, and other measures was seen to be insufficient.

The task of the working group appointed by the Review Committee was to propose an overall provincial approach to:

- An inventory of "nursing sensitive outcome indicators" impacting the quality of patient care provided in health authorities.

- Opportunities for the use of reasonable, pragmatic and shorter-term baseline and ongoing measures, which may assist health authorities during change management processes involving changes in staff mix and scopes of practice.

Scope of Practice

The term "scope of practice" is ill defined, inconsistently applied across health care settings, and frequently subject to misinterpretation. At its most basic level, "scope of practice" for each profession is defined by legislation. *Implementation* of the scope of practice is influenced by the needs of the client population, characteristics of health care providers, organizational resources and other factors. This may lead to inconsistencies in the application of scopes of practice between practice settings, facilities and health authorities.

For the purposes of this paper, a working definition of full scope of practice is:

"deploying health professionals to the full range of their roles, responsibilities and functions they are educated, competent and authorized to perform."

This definition encompasses *educational preparation, continuing competency*, and the *legislative authority* to conduct certain actions, particularly restricted activities under the Health Professions Act. Scope of practice is a dynamic concept, and is strongly impacted by organizational culture.

Staff Mix

Deciding on the appropriate mix of staff is complex, and multiple factors must be considered (Registered Nurses Association of British Columbia, 2001). Staff mix may be defined as the balance between regulated and unregulated practitioners, and supervisory and line staff. It includes staff qualifications, competencies, skills and work experience.

There is no universally accepted methodology for analyzing staff mix, and only a modest amount of Canadian research on its implications for patient care. Many staffing patterns are made on the basis of managerial discretion, experience and judgment, taking into consideration such elements as patient/client needs, staff characteristics, workplace issues and other variables. Although thoughtful and deliberate, these decisions are often in large part determined by reallocation of existing staff.

Some research studies suggest that reassignment of non-nursing activities during a staff mix review improves the quality of care, and may reduce or at least contain overall organizational costs.

Key questions to guide decision making include:

- What do clients require?
- Who has the competencies to provide the required care/service so that client safety is not compromised?
- Who can best provide the required care/service to achieve the goals that have been agreed upon?
- Where can the care/services best be provided?
- Can some of the components of the care/service be assigned to another health care worker?
- Does the agency provide the organizational resources required to deliver the appropriate care/service?
- What is the process for evaluating staff mix decisions?

McGillis - Hall (Nursing Economics, 1998) identified five major considerations when changing staff mix:

- (i) Involving regulated practitioners in the development of the staff mix model.
- (ii) Addressing the educational requirements of regulated providers to practice effectively within the new staff mix model.
- (iii) Addressing the educational requirements of unregulated workers to be able to function effectively within the new staff mix model.
- (iv) Clarifying and interpreting the meaning of delegation for regulated practitioners.
- (v) The need to evaluate staff mix models.

Scope of Practice, Staff Mix and Patient Outcomes

The Calgary Health Region has identified an inventory of patient outcomes from the literature and their health authority settings which may be related to the scope of practice and staff mix in a facility:

- Symptom control and change in symptom severity.
- Prevention of complications (risk, incidents and consequence).
- Prevalence of the use of restraints.
- "Failure to Rescue" (failure to respond to patients' urgent circumstances such as shock, cardiac arrest, and deep vein thrombosis, potentially resulting in increased morbidity and/or mortality)
- Length of stay.

- Patient and family complaints.
- Functional status.
- Self-care and self-esteem.
- Knowledge of condition and treatment.
- Satisfaction.
- Mood "depression" or disturbance at discharge, as well as anxiety prevention and reduction.
- Post-discharge home care costs and post-discharge dependence.
- Unplanned visits to physicians.
- Unplanned Emergency Department visits.
- Unplanned readmissions.
- Patient hygiene.
- Patient nutrition, hydration, intravenous therapy, and effectiveness of elimination.
- Quality of life.
- Strength of treatment alliance.
- Risk reduction in terms of health promotion and disease prevention.
- Increase in protective factors (for example, caregiver involvement).

Organizational Culture and Commitment to Quality of Health Care

Organizational culture is the sum total of attitudes, beliefs and behaviors within an organization. Culture brings about a sense of belonging. It also lets people know what is important and what the tolerance limits are for non-compliant actions.

A culture of quality results in a corresponding commitment to objectivity, rational thought, facts, data and evidence. Quality is linked to observable, measurable and documented evidence, actions and results, with relatively less reliance on anecdotes and "informed opinion".

Organizations committed to quality management and improvement focus on numerous quality indicators. A quality indicator is a measure of an important aspect of the quality of care or the quality of services. It is not itself a direct measure of quality, but acts as a screening tool or reference point for monitoring, evaluating and improving care. Clinical and non-clinical quality indicators are used and include those that relate to structure, function, process and outcome.

In general, indicators should represent those procedures, conditions or services that are:

- Frequently occurring.

- Easier to monitor through the collection of readily accessible data.
- High-risk, high-volume, high cost or problem-prone.
- Amenable to intervention.
- Highly variable in the way they are managed.

The principles of quality management and improvement, as they relate to health care, are noted in the Appendix.

Nursing Sensitive Outcome Indicators in the Literature

Introduction

Nursing sensitive outcome indicators are intended to be used to draw correlations between nursing intervention patients have received and their resulting health status. They are an attempt to measure the effectiveness of nursing care by measuring patient outcomes.

However, patient outcomes are ultimately determined by numerous other intervening variables such as their diagnosis, socio-economic factors, family support, age and gender, and the quality of care provided by other regulated professionals and unregulated workers.

Alberta Heritage Foundation for Medical Research

The implications of staff mix, staff ratios (such as nursing professionals to unregulated workers) and the deployment of nursing professionals to "full scope of practice" with respect to health care outcomes have been the subject of some Canadian and international research. The Alberta Heritage Foundation for Medical Research (AHFMR) noted that empirical studies that addressed staff mix of LPNs and other nursing staff in relation to health outcomes and areas of work provides little more than general guidance to health authorities.

The 2001 AHFMR study commented that that there is a need to recognize the importance of context and practice settings, and also the influence of non-nursing staff on outcomes. Staffing models may vary within and between health regions and be influenced by such factors as the health services delivered, patient/client loads and acuity levels. Patient needs change over time, so changes in nursing staff mix need to be time and case mix sensitive.

University of Toronto, Ontario

The Nursing Staff Mix Outcomes Study was a province-wide research project conducted by principal investigators at the University of Toronto. It was designed

to assess the impact of changes in the composition and mix of nursing care staff in acute care teaching hospitals on patient, nurse and system outcomes. Data was gathered at 19 teaching hospitals in the form of interviews, administrative records, questionnaires, and chart abstraction. The key findings were:

- System quality variables (perceptions of technical quality of care, and approaches to coordination of care) were important predictors of nurse outcomes (level of job pressure, job threats and role tension).
- Nursing leadership had an important influence on all of the nursing outcomes studied (job satisfaction, job pressure, job threats and role tension).
- Patient complexity had a strong influence on job satisfaction, job pressure, job threats, role tension and on nursing hours utilization.
- Patient age and complexity were predictors of utilization of nursing hours, with more nursing hours utilized for patients that were older and with higher complexity levels.
- Staff mix was a significant predictor of selected patient health and quality outcomes: functional independence, pain, social functioning, and satisfaction with obstetrical care). Higher proportions of nursing professionals in the staff mix were associated with better health and patient satisfaction outcomes and with lower rates of medication errors and wound infection.
- The technical quality of care on the inpatient unit was associated with better pain outcomes.
- The quality of communication among nurses, and between nurses and other disciplines was positively correlated with patients' functional independence scores at discharge and with patients' satisfaction with nursing care.
- Nursing job satisfaction was related to patient satisfaction with nursing care, and with better pain outcomes.

Calgary Health Region

Research demonstrates a close linkage between nursing job satisfaction and nurse retention and recruitment, job satisfaction, work production, quality of care and client outcomes. A literature review on this subject conducted by the Calgary Health Region (2002) addressed the importance of understanding staff mix and staff ratios within the overall context in which nurses work. The Calgary Health Region review addressed six categories, with the following key findings:

- Job Design: Evidence points to the importance of professional autonomy and control over the practice environment, and effective communication between health care team members in nursing satisfaction and patient outcomes.

- Role Change: It is important to train all staff in the coordination, supervision and management of care within the health care team. Nursing positions should ideally be designed to complement, rather than replace each other. Ideally, nurses should be able to focus on their patient care responsibilities and not have their attention diverted by non-nursing tasks.

Role confusion and lack of clarity often result when introducing changes in staff mix models. When designing new roles, results are enhanced if all members of the nursing care team are involved in design and implementation.

- Workload: The inconsistency in measurement tools makes it difficult to draw conclusions about the implications of workloads. The available research suggests that "lean" staffing of professional nurses leads to adverse patient outcomes and increased costs due to nursing overtime, sick time, disability and extensive time spent orienting new staff.
- Organizational Supports: The availability of organizational supports (such as supplies, technology, access to housekeeping and assistive personnel) positively influences nursing job satisfaction, patient satisfaction and indirectly, patient outcomes.
- Nursing Leadership: Nurses who are more strongly involved in policy development, decision making, budgeting, staff development and general support have higher rates of job satisfaction, leading to better patient outcomes.
- Culture: Organizational culture (change management, professional development, employment relationships, communication, safety and social support) similarly empowers nurses and leads to greater job satisfaction.

The Calgary Health Region, in collaboration with health authorities in Edmonton and Saskatoon, is in the early stages of a formal proposal to the Federal Government for a rigorous, evidence – based, scientific study of the implications of deploying professional nursing staff to full scope of practice and making adjustments to staff mix, relative to patient care outcomes.

Capital Health Authority/Caritas

The Capital Health Authority and Caritas have conducted similar research activities and literature reviews. All clinical areas are establishing processes for assessing, implementing and evaluating appropriate skill mixes for their patients and clients. One of the many successful ongoing evaluations is at the Palliative

Care Unit at the Grey Nuns Community Hospital in Edmonton. They, like other clinical areas, are examining the impact of the expansion of scope of LPNs to provide medications, and allowing RNs to become more involved in the coordination of patient care, discharge planning, teaching and bedside care.

Evaluation throughout the region is addressing RN and LPN staff satisfaction, patient and family satisfaction, patient care and clinical outcomes, and nursing unit efficiency. Data sources may include:

- staff satisfaction, including issues arising from the management/union Professional Responsibility Committee
- monthly reports on staff sick time
- nursing satisfaction surveys
- patient and family satisfaction, including patient and family complaints, and the results of patient satisfaction surveys
- patient outcomes, including patient classification instruments that address dependency on nursing care, unusual incidents, patients' ratings of their symptoms, evaluation of patient cognitive functions, and dosage of narcotic medication
- unit efficiency, including diagnoses, number for referrals, sources of admission, numbers of admissions, numbers of discharges and destinations, numbers of deaths, average lengths of stay, occupancy rates, average age of patients and numbers of females and males.

Relationship to Health Authorities

Health authorities collect a considerable amount of patient/client volume data and health outcome indicators to ensure strong management oversight and governance, as well as to comply with their business plan reporting requirements to Alberta Health and Wellness. Most hospital units and program and service areas set their own outcome targets, which are most often not comparable to other programs and services in the province.

With few exceptions (for example, early maternity discharges), the majority of the information now collected relates to acute care hospital patients. Yet, the information now collected may not be examined systematically, in terms of its relationship to the impact of nursing resources.

Most health authorities collect a good deal of quality improvement and outcome information to prepare for their Canadian Council on Health Services Accreditation surveys, as well as for other quality improvement initiatives. Additionally, baseline data is also available from most health authorities' payroll/human resource information systems.

Comprehensive, academically rigorous and longitudinal evaluations of scopes of practice and staff mix require significant human and financial resources. Instead, health authorities should be encouraged to focus on useful and pragmatic evaluation considerations at the facility and/or program and service level, preferably before they proceed with changes to staff mix and scopes of practice. This requires a basic understanding of the principles of evaluation, in order to track selected outcome measures to ensure that quality care continues to be provided in the midst of significant changes to staffing complements.

An Introduction to the Principles of Evaluation

The Alberta Mental Health Board's recently published program and service evaluation standards are a useful reference document. The standards are intended to provide a general framework, yet be flexible enough to accommodate special, unique and/or local circumstances.

A commonly referenced systems approach to the evaluation of health services was developed by Donabedian in the 1970s. This framework conceptualizes health services as having three components:

- Structure (also called inputs): facilities, staff, materials, financial resources and baseline patient/client characteristics.
- Process (also called outputs): aspects of service delivery including access, triage, assessment, treatment, follow-up, referral and related activities.
- Outcome: the effects or impacts on services, including improved clinical condition, functioning, quality of life and client satisfaction.

Formative evaluations typically collect data for a specific period of time, usually during the start - up or pilot phase of a project, to improve implementation, address unanticipated problems, and ensure that participants are progressing toward desired outcomes. The primary goal is improving performance.

Summative evaluations are conducted after the program is established. The evaluation is carried out for the benefit of some external audience or decision-making body, in addition to program staff and management. Summative evaluations are primarily intended to make a judgment of the value of the program.

A Potential Model for a Pilot Project

The Calgary Health Region embarked upon five pilot projects dealing with changes in staff mix in November 2001 with the following characteristics:

Underlying principles

1. Any changes in staff mix must be undertaken in an atmosphere of trust, with the understanding that the change is not driven by an agenda of job loss/layoffs.
2. The process should be engaged in a consultative, collaborative manner with all staff affected by the change.
3. An evaluation of the process and outcomes must be planned at the outset of the planning phase.

Proposed process

1. In a general staff meeting, introduce the planned change, with a discussion focusing on :
 - Identification of current problems related to staffing
 - Discussion of the patient/client/family characteristics, such as:
 - What are their needs for care?
 - How do we keep things safe?
 - What do you monitor in your patient/clients on a day-to-day basis to tell you how things are going?
 - What types of roles would RNs, LPNs, etc. like to be engaged in that are currently prohibited?
 - Invite staff to volunteer to be members of the steering committee.
2. Develop a baseline of quality of care indicators/patient outcomes specific to the unit.
3. Choose an appropriate measure of staff satisfaction.
4. Form a core group of staff members, reflecting the various levels of care providers, to act as a steering committee. The committee, working with the Patient Care Manager and facilitator should address:
 - What service delivery models exist to inform our decision-making?
 - What is the desired staff mix for our patient/client population?
 - What education is required to engage in the full scope of practice as outlined in the general staff meeting? (e.g. medication administration modules, assessment courses, etc.)

- How will relationship building be addressed (e.g. delegation sessions, team-building sessions)
 - What resources and individuals will be required to provide and support the education requirements (e.g. Nursing Professional Resources, AARN and CLPNA resources)
 - How will outcomes be measured, and over what time periods? (patient/client/family outcomes and staff outcomes)
 - What resources/individuals will be required to support/ lead the measurement of outcomes?
 - When will the change be implemented?
 - How will the change be celebrated and communicated?
5. From the above discussion, develop an implementation plan, including timelines and evaluation of outcomes.
6. Implement.

Summary and Conclusions: A Potential Approach for Health Authorities

The Health Authorities HPA Review Committee believes that there is minimal value in proposing a provincial inventory of "nursing sensitive outcome indicators." Instead, the intent of this discussion paper is to provide health authorities with background information upon which to base their own decisions about indicators and strategies for evaluation.

Evaluations of the implications of changing staff mix and scope of practice in health authorities should ideally be *formative* in nature. They need not be complex or overly time-consuming. They need not be held to high standards of academic rigour, for example by taking into account all potential intervening variables. *Tracking nursing sensitive outcome measures should ideally be an integral component of health authorities' strategies to increase their organizational effectiveness and efficiency, and minimize their liability.*

At a minimum, health authorities should include four phases to conducting practical evaluations (adapted from "*An outcomes approach to skill mix change in critical care*," Nursing Management, October 2000 and the W. K. Kellogg Foundation Evaluation Handbook):

(i) **Initial planning:** Nursing leadership need to present a conceptual overview of the change management process to all staff to solicit their involvement,

refinement and support. Stakeholders must be identified and an evaluation team established. Evaluation questions need to be developed, and a modest budget considered.

(ii) **Selection of outcome measures:** Data collection methods need to be determined. Outcome measures should ideally already be collected and reasonably easy to determine (for example, patient falls, hospital acquired infection rates, rates of bed sores, and rates of complications and readmissions). It is advantageous to also collect measures of patient satisfaction and nursing job satisfaction if possible. The data must then be analyzed and interpreted.

(iii) **Educational needs:** these include education and mentorship in delegation and supervisory practices, appropriate assignment of patients, proper gathering of data, case management, adherence to corporate directives, policies and procedures, and if applicable care maps and practice guidelines.

(iv) **Determination and communication of results:** assuming relative consistency in the workplace, some conclusions and correlations may be drawn from any changes in the outcome measures. The findings and insights must be communicated to significant stakeholders, and necessary changes must be made to corporate directives, policies and procedures, and clinical practices.

Appendix: Principles of Quality Management and Improvement

The basic concepts of quality management and improvement were developed in the manufacturing industry. Their application has been extended in the past ten years to all organizations producing goods or services, including health care:

1. Productive Work is Accomplished Through Processes

In health care, each process has its own:

- Set of customers and suppliers
- Patient flow processes that move people from place to place
- Information flow processes that create and transport the substance for informed decisions
- Material flow processes that move equipment and supplies.

2. Sound Customer-Supplier Relationships are Absolutely Necessary for Sound Quality Management

Managing quality means trying to improve the capability and reliability of processes to meet the needs of those served. The better a health care organization can understand and meet the needs of its diverse customers, the more successful it will be in the long run.

3. The Main Sources of Quality Defects are Process Problems

The proper objects of efforts to improve quality are not the people who participate in a flawed process, but the processes that make flaws happen in the first place.

4. Poor Quality is Costly

The goal is to prevent defects before they must be repaired, and to develop and maintain processes so reliable that inspection of the end result can be safely reduced or ultimately even eliminated.

5. Understanding the Variability of Processes is a Key to Improving Quality

Those who manage quality know that unpredictable processes tend to be inherently flawed. Unpredictability makes it difficult to study and assess the performance of a process, and compare it to alternative processes.

6. Quality Control Should Focus on the Most Vital Processes

Those who try to control everything often find themselves buried in measurements and end up taking no action. To ensure quality, one must have a:

- Clear definition of the desired quality performance level
- Way to measure the performance
- Way to interpret the measurements, and
- Way to take action to re-establish control when necessary.

7. The Modern Approach to Quality is Thoroughly Grounded in Scientific and Statistical Thinking

Measurement is used to gain knowledge of processes, so that they can be understood, predicted and improve. Complex and subtle quality concepts like reliability, customer service, morale, safety, patient satisfaction, and activities of daily living can be effectively measured.

8. Total Employee Involvement is Critical

Power comes from enabling all employees to become involved in quality control and improvement. Assuring and improving quality cannot be the job of any single person or department.

9. New Organizational Structures Can Help Achieve Quality Improvement

Some form of "steering committee" or "quality council" is advisable to plan the quality improvement efforts strategically. Most improvement occurs through special project teams whose members play significant roles in the processes under investigation.

10. Quality Management Employs Three Basic, Closely Interrelated Activities:

- *Quality planning*
 - Developing a definition of quality and supplies to customers
 - Developing measures of quality
 - Designing products and services in accordance with customer needs
 - Designing processes capable of providing those products and services
 - Transferring those processes into the routine operations of the organization.
- *Quality control*

- Ensuring processes work as they are designed and that target levels of performance are being achieved
 - *Quality improvement*
- Improving the level of performance of a process by implementing new and better methods (*Adapted from Donald Berwick, "As Good as it Should Get: Making Health Care Better in the New Millennium, Washington, D.C., National Coalition for Health Care, 1998).*