FINAL REPORT

of the

Nova Scotia
Healthcare Safety Working Group

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Background

The Nova Scotia Healthcare Safety Working Group was established in September 2003 with a mandate to recommend a three-year health system-level plan of action aimed at improving safety across the continuum of Nova Scotia's health care services. The broad-based plan was to encompass both safety practices which warrant a provincial approach as well as the environmental conditions supporting safety practices.

The Working Group adopted the following framework and principles for its work.

Framework

Acknowledging that action must be taken on many fronts to influence safety, this is the framework adopted by the Healthcare Safety Working Group.

Capacity:
Develop shared commitment
Lead culture change – no blame , team work
Build on what is known from other sectors
Build capacity throughout system to share and utilize information on safety

Involvement:
Engage stakeholders in setting priorities, all levels all types
Promote feedback & participation
Provide regular public feedback
Provide public education

Information & Evidence:
Support standardized reporting & tracking
Identify approaches that have demonstrated ability to improve quality
Provide education on use of info. and tools/approaches

Legal & Regulatory :
Define standards of quality
Develop policies
Strengthen/enact supportive legislation

Safety practices: Adopt practices which reduce the probability of adverse events

Principles

These principles were adhered to in developing the recommendations. The provincial safety plan should:

- be aligned with national directions
- be linked with relevant initiatives in progress
- acknowledge that sectors may vary in focus and pace of activity
- synchronize activity with the business planning cycle

Activity

From September 2003 to October 2004, the Healthcare Safety Working Group gathered information about leading practices in safety, approaches used in other jurisdictions, current activity in Nova Scotia and issues faced by provider agencies in this province. In addition, several short-term initiatives were undertaken.

Information-gathering

Safety Survey

A mail-out questionnaire was distributed to health care agencies to gather information about current practice and safety issues across the health care continuum. Among other relevant resources, the data collected from this survey was collated in time to inform the leadership workshop held in June. A copy of the compiled results were also provided to participating organizations for use within their quality improvement processes.

Sixty surveys were returned from district health authorities[1], nursing homes, home care and support agencies and the regional offices of Home Care Nova Scotia. The response rate (90% DHAs/IWK [9/10] ; 50% continuing care [51/103]) indicates a great deal of interest in the topic of safety and results identify both a willingness and a need to work on collaborative or provincial approaches. There was noteworthy concordance across all sectors with respect to the nature of safety issues that they face. There is variation in the degree to which safety policies and practices are in use both within respondent groups and across the system. This information has been incorporated into the recommendations of the Healthcare Safety Working Group.

[1] the IWK was included in this group

Leadership Workshop

Leaders from all sectors were invited to participate in a workshop to recommend priorities for provincial action on safety across Nova Scotia's health system. One hundred and twenty-nine participants from the continuing care sector, DHAs, industry associations and universities, and the Dept of Health attended. Participants heard presentations about safety issues identified in the safety survey and were given the opportunity to identify and rank top safety issues. Discussion sessions were geared to solicit suggestions about practices or policies which all organizations should have in place to support safety and what mechanisms could be used to relay information across the system and facilitate collaborative projects.

National Information

A number of documents published during 2004 have been helpful in providing timely information about national trends and issues which were not necessarily addressed through local information-gathering, but are generalizable to Nova Scotia. These documents are:

- *The Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada*, CMAJ
- *Health Care in Canada*, CIHI
- *External Patient Safety Review*, Calgary Health Region
- *Building the Foundation for a Safer Health System: Strategic Business Plan*, Canadian Patient Safety Institute

Short-term Initiatives

Four initiatives were undertaken over the past year.

Leadership Engagement

Fostering leadership to advance the safety agenda in Nova Scotia was seen as an important early step that had to be taken by the Department of Health and the formal leaders of the health system. This was accomplished in a number of ways.

Presentations on safety and the work of the Healthcare Safety Working Group were made to groups such as the Council of CEOs, Chiefs of Staff, Quality Directors, NSAHO, several district Boards and the Continuing Care Forum. These groups were invited to identify ways in which they could be supported in their safety efforts. Based on the input from the Council of CEOs, a broader group of leaders in acute care were brought together to prepare for the release of the landmark *Canadian Adverse Events Study*.

Finally, leaders were involved in planning the Healthcare Safety Leadership Workshop held in Halifax on June 10, 2004. One of the objectives of the day was to provide ample information to ensure all leaders were working from the same frame of reference about safety. Another objective was to engage leaders in identifying the safety priorities for collective action in the province.

Resource Kit

In order to decrease the time professionals and organizations spend finding useful documents and tools on healthcare safety, a reference listing of leading websites and key documents was compiled and distributed at the leadership workshop. It is hoped that the information may be helpful in providing information and ideas for consideration across the continuum of Nova Scotia's health system. Highlights have been posted on the DoH ***Quality and Safety web page***. The full resource listing will be made available to health care professionals via a secure web link.

Disclosure Policy

A Task Group was established to develop a provincial policy on disclosure of adverse events to patients/clients/residents. Disclosure is required to fulfill legal, ethical and professional obligations, to provide individuals with facts necessary for informed decision-making, to support the relationship of trust between those providing and those receiving care, and to support prevention of recurrence and quality improvement. The policy will outline minimum content requirements to be included in individual disclosure policies which all health care agencies must have in place.

The first draft of the policy has been developed and is being circulated for broader review among system stakeholders.

Public Education

Individuals receiving care play an important role in healthcare safety. By being active, involved and informed members of their health care team, clients can provide information and ask questions that decrease the likelihood of adverse events.

The Healthcare Safety Working Group provided valuable input into the development of public information entitled ***Safety Tips for Nova Scotians: Being Involved in Your Care***. The information was produced as a brochure and a poster which has been distributed for use by the District Health Authorities. The information has also been placed on the DoH ***Quality and Safety web page***.

Priority Safety Issues

Priority safety issues for Nova Scotia's health system, as identified by stakeholders and through external references, are listed in random order:

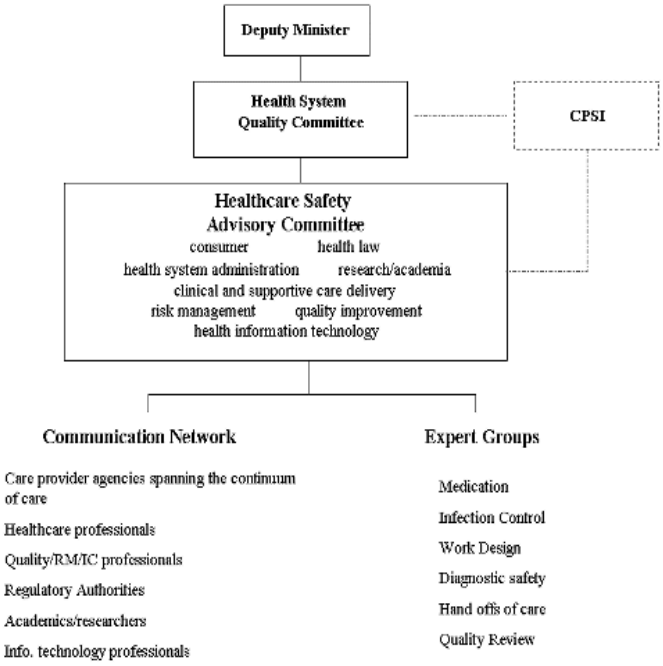
- Creating a safety culture
- Access to meaningful information and evidence to support hazard prevention
- Medication safety
- Infection control
- Handoffs of care
- Documentation of care
- Diagnostic safety
- Dealing with challenging behaviour/aggression
- Falls prevention in the care environment
- Work design
- Legislative and regulatory support

Descriptions of each of these issues is provided in Appendix C.

Recommendations for Action

Based on the information gleaned over the past year, the Healthcare Safety Working Group is recommending a plan of action to improve safety in Nova Scotia's health system.

As the work of the Healthcare Safety Working Group has ended with the development of recommendations for action, consideration was given to the ongoing need for a provincial structure to continue to contribute to collective action on safety. By focusing on the identified priority safety issues, a provincial Healthcare Safety Advisory Committee, depicted below, should expand on the foundational work of the Healthcare Safety Working Group.



Responsibility for the recommended actions is varied : sometimes directed to the administration of numerous agencies or the Department of Health, and in other cases directed to existing committees or requiring establishment of a new task group. The recommendations span a broad time range. Some action can be completed within a relatively short term and other action will require a longer time frame to initiate and/or complete. The recommendations are positioned within a time frame in Appendix A.

Capacity

1. Establish a provincial Healthcare Safety Advisory Committee, which spans the continuum of care, to liaise with national initiatives such as the Canadian Patient Safety Institute, promote mechanisms to network and share information on safety within the province, and advise health system leaders on action to improve safety. A key mandate of the Healthcare Safety Advisory Committee is to recommend adoption of leading practices (see recommendations 10-16 below) and establish performance targets in priority areas. (Appendix B contains draft Terms of Reference)

2. Incorporate healthcare safety priorities into the annual business planning and resource allocation cycle through:

    - the development of operational plans which address safety gaps identified at the agency and provincial levels
    - evidence that provincial safety priorities are included in business plans
    - application of ranking criteria which recognize remediation of safety hazards and select safety issues as a top priority among competing demands

3. Incorporate safety considerations into health care system design by including individuals with mandated responsibility for safety on all systems planning activities, such as:

    - health human resources
    - information systems
    - new facility design

4. Develop electronic communication networking opportunities, such as:

    - web-based forum with discussion capabilities
    - virtual grand rounds about near misses and safety hazards

5. Support multidisciplinary and cross-sectoral participation in planning and attending educational sessions in Nova Scotia on healthcare safety.

Information and Evidence

6. Participate in national initiatives to enhance collection of data/information on safety, such as development of:

    - safety indicators
    - the Canadian Medication Incident Reporting and Prevention System

7. Develop mechanisms to track provincial progress on improving safety in healthcare.

8. Advocate that opportunities for improving and monitoring safety with information technology be explored within existing information systems and when new systems are under development by:

    - planning for linkage capabilities for sharing information across sectors
    - heightening awareness of safety features inherent in information systems, e.g. clinical alerts, implementation of forcing functions, point of care decision support, red-flagging hazards, detecting and tracking potential adverse events.

    - utilizing capabilities of NShIS which demonstrate evidence of reducing errors or which contribute to monitoring safety e.g. computerized physician order entry, tracking hazard flags.

9. Support local collaborative pilot projects which evaluate the effectiveness of safety practices for potential application across the care continuum.

Safety Practices

10. Identify leading medication safety practices (such as recommended by ISMP, CMA, AHRQ, etc.) and any barriers to their implementation in Nova Scotia; make recommendations for action as relevant.

11. Collect and analyse Nova Scotia information pertaining to national infection control issues as identified in publications such as *Health Care in Canada 2004* (CIHI) and the *Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada* (Baker and Norton, 2004); make recommendations for action as relevant.

12. Develop minimum standards of information exchange pertaining to hand-offs of care which are compatible both with privacy legislation and with safe care.

13. Support involvement of front-line providers and quality professionals in the development of provincial initiatives to optimize documentation of care practices. This includes components of the NShIS and the development of standards of information exchange pertaining to hand-offs of care (ref. Recommendation # 12).

14. Identify leading diagnostic safety practices and any barriers to their implementation in Nova Scotia; make recommendations for action as relevant.

15. Support expansion of the Challenging Behaviour Initiative beyond the continuing care sector so as to foster common language, practices and access to expertise across the entire continuum of care.

16. Develop a provincial falls prevention strategy based on a common risk assessment tool and offering a collection of approaches adaptable to various health care settings. Development has been initiated by the provincial Osteoporosis Project and will benefit from and link with the provincial Injury Prevention Strategy.

17. Heighten awareness of safety issues associated with work scheduling through such activities as:

    - develop information materials for use with direct caregivers who work extended hours and rotating shifts
    - support pilot projects demonstrating creative scheduling options which improve safety

Public, client and stakeholder involvement

18. Continue to develop and distribute safety information for the public: some suggested activities:

    - expand "tips for Nova Scotians"
    - consider development of video-based materials for use in waiting areas and other public venues
    - work with media on reporting on safety

Legal and Regulatory Environment

19. Establish a provincial Working Group to advise on mechanisms supporting meaningful quality review, including:

    - operational guidelines
    - common tools
    - facilitating legislation

20. Complete the development of a provincial policy on Disclosure of Adverse Events to Clients.

Summary

It has been a busy year for the Healthcare Safety Working Group and significant progress has been made in profiling safety in Nova Scotia's health care system. There is a plethora of information available on the topic of healthcare safety. This has been both helpful in enlightening the efforts of the Group, while at the same time creating a challenge in narrowing the range down to those issues which should be acted upon collectively in Nova Scotia over the next three years. Fortunately, many stakeholders were involved in identifying priorities and providing focus.

Despite the fact that we are all proud of our health care system, safety can be improved. The members of the Healthcare Safety Working Group stress that nothing that we do in health care is more important than working to ensure the safest care possible. There is much to be done. In the hopes that momentum built over the past year will not be eroded, the Healthcare Safety Working Group respectfully submits its report including twenty recommendations for action.

APPENDIX A

Recommendation Time Frame		Initiation			
Recommendation	**Time frame**	**Year 1**	**Year 2**	**Year 3**	**Responsibility**
Capacity					
1.Establish a provincial Healthcare Safety Advisory Committee.	S				DoH
2. Incorporate healthcare safety priorities into the annual business planning and resource allocation cycle.	S-M				DoH & Health Care Agencies
3.Incorporate safety considerations into health care system design by including individuals with mandated responsibility for safety on all systems planning activities.	S and ongoing				DoH & Health Care Agencies
4.Develop electronic communication networking opportunities.	S				DoH &HSAC
5.Support multidisciplinary and cross-sectoral participation in planning and attending educational sessions in Nova Scotia on healthcare safety.	S and ongo ing				DoH, Health Care Agencies & Professional Regulatory Bodies
Information and Evidence					
6.Participate in national initiatives to enhance collection of data/information on safety.	M-L				tbd based on national agencies
7.Develop mechanisms to track provincial progress on improving safety in healthcare.	S				HSAC
8.Advocate that opportunities for improving and monitoring safety with information technology be explored within existing information systems and when new systems are under development.	S-L				HSAC
9.Support local collaborative pilot projects which evaluate the effectiveness of safety practices for potential application across the care continuum.	M				HSAC & DoH
Safety Practices					
10. Identify leading medication safety practices and barriers to their implementation in Nova Scotia; make recommendations for action as relevant.	S				HSAC & Physician Svcs. In LTC Facilities Committee
11.Collect and analyse Nova Scotia information pertaining to national infection control issues; make recommendations for action as relevant.	S				Provincial Communicable Disease Infection Control Advisory Committee
12. Develop minimum standards of information exchange pertaining to hand-offs of care which are compatible both with privacy legislation and with safe care.	S				HSAC

Recommendation Time Frame		Initiation			
Recommendation	**Time frame**	**Year 1**	**Year 2**	**Year 3**	**Responsibility**
13. Support development of provincial initiatives to optimize documentation of care practices.	M-L				NShIS Steering Committee, HSAC & Health Care Agencies
14. Identify leading diagnostic safety practices and any barriers to their implementation in Nova Scotia, make recommendations for action as relevant.	M-L				HSAC
15.Support expansion of the Challenging Behaviour Initiative beyond the continuing care sector so as to foster common language, practices and access to expertise across the entire continuum of care.	M				DoH
16.Develop a provincial falls prevention strategy based on a common risk assessment tool and offering a collection of approaches adaptable to various health care settings.	S				Provincial Osteoporosis Project
17.Heighten awareness of safety issues associated with work scheduling.	M				HSAC
Public, Client & Stakeholder Involvement					
18.Continue to develop and distribute safety information for the public.	M				DoH, PRWG, Quality/Rsk Directors' Group
Legal & Regulatory Environment					
19.Establish a provincial Working Group to advise on mechanisms supporting meaningful quality review.	M				HSAC
20.Complete the development of a provincial policy on Disclosure of Adverse Events to Clients.	S				Disclosure Policy Task Group

Key: Timeframe S-short-term completion within 1 year, M-medium-term completion within 1-2 years, L-long-term completion requires longer than 2 years.

APPENDIX B
TERMS OF REFERENCE
Draft 2 Oct. 22, 2004

Committee: Provincial Healthcare Safety Advisory Committee

Reporting: to the Deputy Minister of Health through the Health System Quality Committee of the Department of Health

Background: Maintaining safety in the health care system is a commitment of provider agencies and professionals in all sectors of Nova Scotia's health system. Keeping safety at the forefront of health care management requires leadership, coordinated activity and collaboration among governments and stakeholders to identify and address safety gaps.

In 2003 the Department of Health established a Healthcare Safety Working Group to develop a plan of action for the enhancement of safety in Nova Scotia's health system. Through consultation across Nova Scotia, the Working Group identified priority safety issues, developed general recommendations for short and long-term action and stressed the need to establish an ongoing leadership mechanism, through the establishment of a Provincial Healthcare Safety Advisory Committee.

Purpose: The purpose of the Provincial Healthcare Safety Advisory Committee is to provide leadership in advancing client safety practices and a culture of safety across the continuum of Nova Scotia's health care services.

The committee will liaise with existing initiatives at the provincial and national levels, maintain a safety stakeholder network and advise on leading practices and activities which could be adopted in Nova Scotia:

a) to minimise the likelihood and effects of system or process error or failure which might result in injury to individuals receiving care;

and;

b) to enhance underlying environmental conditions that support safety.

The committee will oversee action on approved priority issues as requested by the Deputy Minister.

Function: Review provincial safety priorities on an annual basis and advise on the need to revise or add to priorities.

Serve as a provincial coordinating structure for sharing information on health care safety across the province.

Maintain liaison with the Canadian Patient Safety Institute and other organizations promoting leading practices in safety.

Review reference material and consult with stakeholders and experts to identify leading evidence-based safety practices.

Develop detailed strategies and performance targets to support those approved recommendations made by the previous Healthcare Safety Working Group.

At the request of the Deputy Minister, provide direction and/or advice on provincial actions undertaken in support of approved priority areas.

Recommend mechanisms to monitor safety practices and outcomes across Nova Scotia.

Prepare annual report on activities to the Minister of Health.

Membership: Rather than representing their employing agency or a specific constituency or geographic location, membership will represent expertise and experience in such areas as health system administration, clinical and supportive care delivery, risk management, quality improvement, health law, health information technology and research/academia. A consumer (minimum 1) will also sit on the committee. A minimum of one third of the members will hold senior decision-making positions within their organizations. Some members of the HSWG should be asked to sit on the committee for the first year in order to facilitate continuity. Expert or consultative groups will be established to reflect priority areas of focus.

chair:
- appointed by the Deputy Minister

Resources: the members' employing agencies are responsible for any costs incurred to attend meetings

Physicians on fee-for-service remuneration can be reimbursed through the Physicians Consultant Fund.

the Department of Health will provide secretariat support

Meeting Frequency:

every month, or as determined by the Committee;
to the extent possible, communication and work input will be arranged by teleconference and e-mail.

APPENDIX C
Description of Safety Issues

Creating a safety culture

A culture of safety embraces the understanding that larger systemic problems, rather than individual "bad apples", are the cause of most adverse events in health care. A culture of safety also acknowledges that improvements in healthcare safety result primarily from organizational and individual learning and creates the environment that fosters learning from adverse events, wherever they occur.

Organizational leadership is essential for cultural change to occur. Leaders in the healthcare system must embrace and lead necessary change[2].

The Nova Scotia safety survey identified variation in policies and practices across the system. Respondents to the survey and participants in the leadership workshop on safety stressed the need for training in safety, collaboration on policy development and the initiation of safety networks.

The Canadian Patient Safety Institute will act as a key conduit of information on safety across Canada. It will rely heavily on its stakeholder advisory network and build partnerships with national organizations and provincial safety/quality councils (or equivalent bodies)[3].

Access to meaningful information and evidence to support hazard prevention

The growing sophistication of computers and software should allow information technology to play a vital part in reducing hazards in health care. The application of information technology to healthcare safety is broad, including streamlining care, catching and correcting errors, assisting with decisions, and providing feedback on performance.[4] Specific examples of how information technology has been used to enhance work design include forcing legibility and comprehensiveness in prescription ordering, point of care access to clinical references via hand-held computers, rapid alerts to critical laboratory results, and constraints on drug choices. Information technology can enhance safety surveillance by providing and collecting real-time signals (ADE trigger tools) of adverse events such as the use of an antidote.

It is important to understand the fundamental role that information technology can play in safety. Safeguarding safety is the rationale for implementing information systems, not a by-product of their other functions. First and foremost, systems must be in place across the care continuum. Then their safety applications must be initiated in a timely manner.

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[2] Reeder, M., "Patient Safety: Cultural Changes, Ethical Imperatives", Healthcare Quarterly, 2004, Vol. 2, No. 1.

[3] Canadian Patient Safety Institute, Building the Foundation for a Safer Health System: Strategic Business Plan 2004-05 -2007/08, 2004.

[4] Bates, D.W., Gawande, A.A., "Improving Safety with Information Technology", The New England Journal of Medicine, 348:25, June 2003, p. 2526.

Respondents to the Nova Scotia safety survey and participants in the leadership workshop on safety stressed the need for mechanisms to access information about safety and share "lessons learned" broadly across the system.

Health Canada has funded a partnership with the Canadian Institute for Health Information and the Institute for Safe Medication Practices to develop a national medication incident and prevention system. This system will introduce common data standards and automated voluntary data collection about medication incidents.

Medication Safety

The CIHI Report *Health Care in Canada* (2004) states that while there are no comprehensive national estimates of the frequency of medication errors, pockets of information suggest that they are one of the most common types of adverse events in health care[5]. Canadian studies in both acute and ambulatory settings indicate a large proportion of adverse events involve drug and fluids. Errors can occur anywhere within the processes of ordering, dispensing, administering and monitoring drugs and fluids. Medication errors may involve, among other things, dose and concentration, form of dosage, route of administration, and misidentification of drug or client.

Children and the elderly are deemed at highest risk of adverse events associated with medication.

The Nova Scotia safety survey identified variation in policies and practices related to medication. Participants at the leadership workshop on safety ranked medication and fluid management in the top five of safety issues requiring a collective provincial approach.

Infection control

Some suggest that health-care associated (nosocomial) infections are the second most common type of adverse event in hospitalized patients, after medication errors.[6] Some acute care locations, such as intensive care, surgical and orthopedic units, are known to be associated with higher infection rates. A Canadian point prevalence survey in hospitals indicated that urinary tract infections (UTIs) and pneumonia were the most common among five types of infections. [7] Monitoring in Ontario indicates that UTIs were higher following certain procedures over others.[8]

Urinary tract infections were identified as the most frequent type of among all sectors responding to the Nova Scotia safety survey. In the long term care setting, MRSA and flu outbreaks were

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[5] Health Care in Canada, 2004, Canadian Institute for Health Information, p. 56.

[6] Zoutman,D.E., Ford, B.D., Bryce, E., Goudreau, M., Henert, G., Henderson, E., Paton, S., "The State of Infection Surveillance and Control in Canadian Acute Care Hospitals", American Journal of Infection Control 31 (2003): pp. 266-273, cited in Health Care in Canada, 2004, Canadian Institute for Health Information, p. 61.

[7] Health Care in Canada, 2004, Canadian Institute for Health Information, p. 61

[8] Health Care in Canada, 2004, Canadian Institute for Health Information, p. 61

also identified. Nosocomial infections ranked within the top five by continuing care participants at the leadership workshop on safety. Of note, training and education pertaining to infection control policies and procedures is deemed to be a significant safety challenge in long term care.[9]

At the provincial level, a Communicable Disease Infection Control Advisory Committee has been established and an Infection Control Consultant position has been funded.

Handoffs of Care

Healthcare safety can be compromised by discontinuities in care. The Agency for Healthcare Research and Quality (AHRQ - U.S.A.) has commissioned work on the issue of information transfer as a safety practice. Studies suggest that discontinuity results from poor information transfer and faulty communication, which in turn may cause avoidable adverse events.[10] Practices which were studied for AHRQ include transfer of information between inpatient and outpatient pharmacies, sign-out systems for medical housestaff, automatically generated electronic discharge summaries and systems to improve patient notification of abnormal results.

The Nova Scotia Healthcare Safety Working Group considered handoffs of care to be a thread running through many of the other safety priority issues. For example, infection control in long term care may be compromised if adequate information about infectious disease treated in hospital is not relayed at time of transfer back to a nursing home.

Documentation of care

Accurate, regularly updated and accessible information about the client and his/her care is integral to safety. Documentation plays an important role in smooth hand-offs between individual caregivers and across settings. In its 2002 national accreditation report[11], the Canadian Council on Health Services Accreditation provides an overview of safety issues identified during accreditation surveys across the country. Gaps in documentation were identified as a safety concern during 2002 . A recurrent gap was identified in documentation of informed consent.

Gaps in documentation are identified routinely in accreditation surveys conducted in Nova Scotia.

Diagnostic safety

Medical diagnoses that are wrong, missed, or delayed make up a small but significant fraction of all medical errors and cause substantial suffering and injury. Despite this, diagnostic errors

[9] Personal communication, Josie Ryan, Infection Control Practitioner, Northwoodcare, June 10, 2004.

[10] Agency for Healthcare Research and Quality, Making Healthcare Safer: A Critical Analysis of Patient Safety Practices, Chapter 42. Information Transfer, Evidence Report/Technology Assessment No. 43, p. 471.

[11] Canadian Council on Health Services Accreditation, National Health Accreditation Report, 2002.

receive little attention compared to other types of adverse events. Physicians and nurse practitioners receive relatively little feedback on diagnostic errors they may have made. Definitive diagnosis is often not forthcoming, and even when it is, the physician making the original diagnosis may not find out about the ultimate error. Dr. Mark Garber, Chief of Medicine at the Department of Veterans Hospital, New York holds research funding from the National Patient Safety Foundation to study diagnostic error in medicine. Speaking at the 2003 Halifax Safety symposium, he advocated shedding more profile on diagnostic error, including cognitive theory and optimal decision-making in medical school curricula and increasing the use of autopsies as a means of feedback. Garber stated, "Healthcare systems need to help identify, analyze and publicize diagnostic errors"[12].

Dealing with challenging behaviour/aggression

Aggression and violence in health care settings is a safety issue for clients and health care workers alike. Challenging behaviour/aggression was identified as the number one safety issue (tied with falls) across all sectors in the Nova Scotia safety survey. Aggression is experienced in many settings across all sectors, often associated with health conditions such as Alzheimers Disease, addictions or mental illness.

The first phase of the provincial initiative Approach to Care for Continuing Care Clients with Challenging Behaviour commenced in 2004.

Falls prevention in the care environment

Falls are one of the leading causes of serious injury. CIHI reports that they account for almost 30% of all injury hospitalizations and about a third of in-hospital deaths among people admitted for injuries[13]. Details about falls in the health care setting are difficult to quantify due to variation in data collection methods across the system; however, falls were identified as the number one safety issue across all sectors in the Nova Scotia safety survey. Capital Health reports that, although less than 5% of falls have an associated injury and very few are serious in nature, a large number are reported every month for purposes of prevention and quality improvement.[14]

Although some health care facilities have developed falls prevention programs, there is no consistency, nor is this universal across Nova Scotia. The provincial Osteoporosis Project is developing a falls assessment program for the Long Term Care sector that can be applied across all other sectors. The program will include an assessment tool, education plan and

[12] Garber, M., MD, FACP, speaking at The Third Halifax Symposium on Healthcare Safety, October 18, 2003.

[13] Canadian Institute for Health Information, National Trauma Registry: 2003 Report [online], cited in Health Care in Canada, 2004, Canadian Institute for Health Information, p. 63.

[14] Personal communication, Beth Kiley, Risk Management Advisor, Capital District Health Authority, March 2003.

recommendations for evaluation and monitoring.[15]

Work design

Work design includes a multitude of factors such as workforce staffing and shifts, workflow design, human interface with machines, personal/social factors and environmental factors. There is extensive variability in the amount of research conducted to determine the extent to which working conditions contribute to the incidence of adverse events[16]. An effective strategy to enhance safety involves changing policies and procedures to make it more difficult for people to make mistakes and easier to recover from those that will occur. Some examples include standard treatment guidelines, electronic health records and bar codes on medications.[17]

The issue of worker fatigue has been extensively studied in many industries around the world. More recently, neurobehavioural impairment caused by sleep deprivation has been studied in health care. In the Intern Sleep and Patient Study, interns made 35.9 percent more serious medical errors during the traditional schedule (long shifts and every third night call) than during an intervention schedule[18]. Work hours have been included in various agreements governing deployment of Interns and Residents in Canadian jurisdictions and the European Working Time Directive is being implemented in Europe[19].

Participants at the leadership workshop on safety ranked general system issues, including work design, in the top five safety issues requiring a collective provincial approach.

Legislative and regulatory support

Systematic quality review is acknowledged as an important mechanism for generating quality improvement. Concerns about confidentiality of information have served to inhibit the use of quality review as a valuable tool for improving patient care.

One of the important means of building an environment that is conducive to reporting and discussion of factors contributing to adverse events and recommended improvements is through supportive legislation. Such legislation aims to ensure that data and opinions associated with quality review are protected from disclosure in legal proceedings. Fostering a positive

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[15] Terms of Reference: Falls Assessment Working Group, Nova Scotia Provincial Osteoporosis Project,, Sept. 2004.

[16] Agency for Healthcare Research and Quality, "The Effect of Health Care Working Conditions on Patient Safety", 2003, Evidence Report/Technology Assessment No. 74.

[17] Canadian Health Services Research Foundation, Mythbusters, September 2004.

[18] Landrigan, C.P., Rothschild, J.M., Cronin, J.W., Kaushal, R., Burdick, E., Katz, J.T., Lilly, C.M., Stone, P.H., Lockley, S.W., Bates, D.W., Czeisler, C.A., "Effect of Reducing Interns' Work Hours on Serious Medical Errors in Intensive Care Units", 2–4, New England Journal of Medicine, 2004, No. 18, 351:1838.

[19] "Developing and Implementing Organisational Practice that Delivers Better, Safer Care", Commentaries, Quality and Safety in Healthcare, 2004, p. 247.

environment for improving safety also involves tort reform to address the competing interests and focus on litigation to obtain a settlement for those harmed through health care which may deter open dialogue and discussion of an adverse event. [20]

Variation exists among provinces in their regulatory frameworks for healthcare safety. In Nova Scotia some legislative provisions are in place and changes have been made to support quality review in Nova Scotia [e.g. Evidence Act clause 60, FOIPOP Act clause 19d, Fatality Investigations Act clause 31(3)].

Legislative and regulatory support was ranked highest of all issues requiring a collective provincial approach by participants at the leadership workshop on safety.

The Canadian Patient Safety Institute plans to develop a legislative model for sharing of information, no-fault insurance and mandatory reporting of adverse events for examination on a provincial basis[21].

[20] National Steering Committee on Patient Safety, Building a Safer System, A National Integrated Strategy for Improving Patient Safety in Canadian Health Care, Sept. 2002, p. 17.

[21] Canadian Patient Safety Institute, Building the Foundation for a Safer Health System: Strategic Business Plan 2004-05 -2007/08, 2004.