Who We Are
Established in 1994, CIHI is an independent, not-for-profit corporation that provides essential information on Canada’s health system and the health of Canadians. Funded by federal, provincial and territorial governments, we are guided by a Board of Directors made up of health leaders across the country.

Our Vision
To help improve Canada’s health system and the well-being of Canadians by being a leading source of unbiased, credible and comparable information that will enable health leaders to make better-informed decisions.
Acknowledgements

The Canadian Institute for Health Information (CIHI) wishes to acknowledge and thank the individuals and organizations that volunteered their time and effort to contribute to the evaluation of the National System for Incident Reporting (NSIR) for long-term care. The results of these evaluation activities will enable CIHI to make changes that will improve the system.

Sincere appreciation goes to the front-line, managerial and administrative staff in the long-term care facilities that participated in the Long-Term Care Pilot Test. Individuals within each organization spent time to prepare for and implement NSIR and provided both formal and informal feedback. This feedback has been invaluable to CIHI. We wish to recognize the organizations that participated:

- Deer Lodge Centre,° Winnipeg, Manitoba
- River Park Gardens,° Winnipeg, Manitoba
- Oakview Place,° Winnipeg, Manitoba
- Tuxedo Villa,° Winnipeg, Manitoba
- Beacon Hill Lodge,° Winnipeg, Manitoba
- Charleswood Care Centre,° Winnipeg, Manitoba
- Heritage Lodge,° Winnipeg, Manitoba
- Kilodan Care Centre,° Winnipeg, Manitoba
- Maples Personal Care Home,° Winnipeg, Manitoba
- Parkview Place,° Winnipeg, Manitoba
- Poseidon Care Centre,° Winnipeg, Manitoba
- The Convalescent Home of Winnipeg,° Winnipeg, Manitoba
- Pineview Lodge, Kelsey Trail Regional Health Authority, Nipiwan, Saskatchewan
- King City Lodge, King City, Ontario
- Cedarvale Terrace Long Term Care Home, Toronto, Ontario
- Fairview Nursing Home Ltd., Toronto, Ontario
- Mill Creek Care Centre, Barrie, Ontario
- The O’Neill Centre, Toronto, Ontario
- Vermont Square Long Term Care Home, Toronto, Ontario
- The Four Seasons Lodge, Deep River, Ontario
- Carleton Lodge, Garry J. Armstrong Home and Peter D. Clark Centre, City of Ottawa Long-Term Care Branch, Ottawa, Ontario

° Owned and operated by the Winnipeg Regional Health Authority (WRHA).

°° Owned and operated by Extendicare Canada Inc. Funding through a purchase of service agreement with the WRHA.

°°° Owned and operated by Revera Inc. Funding through a purchase of service agreement with the WRHA.

°°°° Owned and operated by the Convalescent Home of Winnipeg. Funding through a purchase of service agreement with the WHRA.
NSIR was developed by CIHI in collaboration with Health Canada, the Institute for Safe Medication Practices Canada, the Canadian Patient Safety Institute and a national advisory committee, based on national stakeholder input.

The NSIR Long-Term Care Pilot Test was planned and implemented by the Pharmaceuticals—NSIR team at CIHI. Numerous CIHI program areas contributed expertise and guidance to this project, including individuals in Application Services, Home and Continuing Care Standards and Support, Communications, Publishing and Translation Services, and Education and Conferences.
Important Notice

This document contains portions of the *National System for Incident Reporting (NSIR) Minimum Data Set (MDS)*. The MDS must not be used as the NSIR data submission specifications and must not be employed as the basis of or foundation for any risk-management systems, software product or any other uses without written licence from CIHI.

The MDS is protected by the copyright laws of Canada and by international treaties. CIHI has released the MDS solely for use in accordance with the purposes of the Long-Term Care Pilot Test. CIHI reserves all rights in the MDS. No reproduction or use of any nature of the MDS outside of the Long-Term Care Pilot Test is permitted except under written licence from CIHI.
Executive Summary

The National System for Incident Reporting (NSIR) is a medication incident reporting system with tools for data entry, anonymous participant communication and data analysis. Participating facilities have access to their own data as well as to de-identified data from other participating sites, which allows them to conduct relevant analysis to inform the development and implementation of preventive strategies to reduce medication incidents.

NSIR was initially developed and tested for the reporting of medication incidents in acute care facilities. Expansion of this component to long-term care (LTC) facilities was identified as the next priority, based on feedback from stakeholder consultation sessions.

NSIR was launched for medication incident reporting in the acute care environment in April 2010. Approximately a year later, a pilot test in LTC was initiated. The pilot ran from March 1 to June 30, 2011. No changes were made to the system in advance of the pilot. The goal of the pilot was to assess whether NSIR is valid, reliable and a good fit for use in LTC facilities. The pilot objectives were to

- Assess the degree to which the minimum data set is acceptable for use in LTC and relevant to inform risk-management and quality improvement activities;
- Assess the data collection and submission process;
- Assess data quality by analyzing the accuracy of coding by participants;
- Receive feedback on aspects of education, client support, system usability and use of analytical reports; and
- Receive feedback regarding future directions for NSIR.

A participant survey and an analysis of coding accuracy done via a reabstraction study formed the core of the evaluation of the LTC pilot.

The LTC Pilot Test included 23 facilities from 3 provinces (Saskatchewan, Manitoba and Ontario) located in major urban centres and rural communities. Twenty of the 23 facilities submitted 263 incident reports during the four-month period.

Twelve evaluation surveys of the 17 anticipated were received (70.6% response rate). Responses represented 12 of the 23 LTC homes. Overall, participants reported that the minimum data set was acceptable for use in LTC. Terminology such as “hospital” and “patient” was noted as being focused on acute care. There were no suggestions to add or delete any data elements. Feedback from respondents led to the addition of the value health care aid to the data elements Health Care Providers and/or Others Involved in the Incident and Health Care Providers and/or Others Who Detected the Incident.
Most organizations used CIHI’s paper data collection form for the pilot. Although staff were able to use the form with minimal guidance, some compliance issues were reported. This may have been partially due to the short pilot period not providing adequate time to develop familiarity with the use of the form. Organizations that continued to use their own data collection form and map the data to the NSIR data standard encountered few issues.

Few usability issues were reported for the data entry and communication tools. Three respondents indicated that they had some difficulty using the analytical tool, and most indicated that they had not used the tool during the pilot.

Most respondents gave positive ratings to all of the education sessions. Comments provided on the timing and content of the analytical tool educational session will be considered for future changes. Respondents reported that client support was quick, easy to access and provided complete responses.

Coding accuracy was assessed for each record through an independent review by two coding experts on CIHI’s NSIR team. The review focused on three data elements: Degree of Harm, Medication/IV Fluid Use Process and Medication/IV Fluid Problem. The LTC pilot site agreement with CIHI’s experts for these data elements was 98.0%, 89.3% and 81.8%, respectively. The LTC results showed improvement compared with the acute care pilot results. This suggests that changes to the minimum data set and education sessions following the acute care pilot improved the likelihood of users correctly selecting the appropriate values. Patterns in coding errors in the LTC pilot identified areas that may be considered to improve data quality.

Finally, respondents were asked to indicate their priorities for future content development for NSIR. Patient accidents (falls) were rated as the highest priority by most respondents, followed by nosocomial infections and pressure ulcers.

The results of the pilot project evaluation suggest that NSIR is suitable for use in LTC. Suggested changes included minor revisions to the minimum data set and to the timing and content of the analytical tool educational session. These changes will be made during the fall/winter of 2011–2012, with recruitment of new LTC sites scheduled to begin during the same time period.