Preventing Falls: From Evidence to Improvement in Canadian Health Care

A Collaboration From Accreditation Canada/
the Canadian Institute for Health Information/
the Canadian Patient Safety Institute

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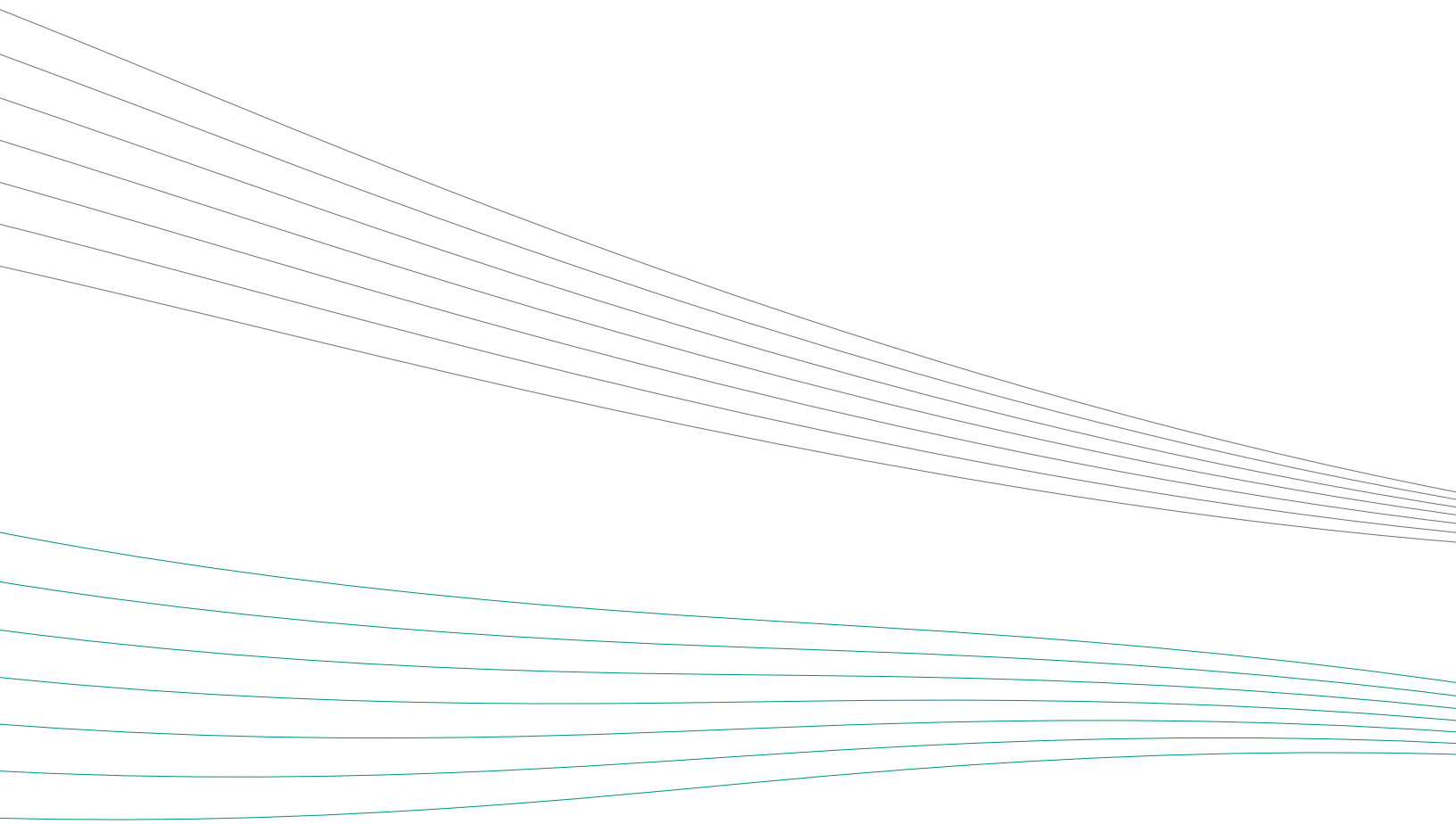

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Report Highlights

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Falls among seniors (individuals 65 years and older) have become a significant health concern in Canada. Falls are experienced by more than one third of seniors and can have a devastating physical and psychological impact resulting in disability, chronic pain, loss of independence, reduced quality of life, and even death. Falls are the leading cause of injury for seniors and also contribute to a significant burden on the health care system. Direct health care costs for falls in Canada are estimated at $2 billion annually.

The negative impact of falls highlights a need to understand the burden of falls on Canadians and the health system. How are Canadian health care organizations progressing with falls prevention programs? Which populations are at greatest risk of falls? What tools are available to support organizations? In the report *Preventing Falls: From Evidence to Improvement in Canadian Health Care*, Accreditation Canada, the Canadian Institute for Health Information (CIHI), and the Canadian Patient Safety Institute (CPSI) take a closer look at these questions and share information about falls and falls prevention in acute care, long-term care, and home care settings.

Falls Across the Continuum of Care

- Fall-related hospitalizations:
  - From 2006–2007 to 2012–2013, the national fall-related hospitalization rate was approximately 16 per 1,000 seniors. Seventeen percent of hospitalizations were the result of falls in residential institutions, which represents more than 80,000 fall-related hospitalizations. Eight percent of fall-related hospitalizations ended in death.
  - Fifty percent of fall-related hospitalizations occurred as a result of falls in the home.
- In the continuing care sector, there is a higher rate of falls in residential-based as compared to hospital-based continuing care.

Falls Prevention in Canadian Health Organizations

- In 2013, 80% of organizations assessed by Accreditation Canada had implemented and evaluated a falls prevention strategy to minimize client injury from falls, up from 75% in 2011. Results across the continuum of care suggest that falls prevention continues to be an opportunity for improvement.
- In 2013, 93% of organizations assessed by Accreditation Canada had conducted a home safety risk assessment, including falls risks, for clients receiving services in the home.

Fostering Continued Improvement in Falls Prevention and Injury Reduction

- Canadian health organizations are participating in a number of initiatives to improve falls prevention including CPSI's *Safer Healthcare Now!* Reducing Falls and Injuries From Falls Intervention, Global Patient Safety Alerts, sharing Accreditation Canada Leading Practices, and the Canadian Falls Prevention Curriculum.
- Innovative research is underway to inform future falls prevention efforts.

Executive Summary

Falls and injury from falls are a significant health concern in Canada and a critical issue in health care safety. Falls are experienced by more than one third of seniors (individuals 65 years and older) and can have a devastating physical and psychological impact on an individual's quality of life. Falls are the leading cause of injury for seniors across Canada, accounting for over 85% of all injury-related hospitalizations, and are also a leading cause of injury during the course of health care delivery in long-term care, home care, and acute care settings. The high prevalence of falls contributes to a significant burden on the health system due to the resulting need for additional services, the occurrence of falls-related complications, and increased length of stay. Direct health care costs for falls in Canada are estimated at $2 billion annually.

The substantial negative impact of falls points to a need to better understand their burden on the health care system and to support improvements in falls prevention initiatives across the country. In this report, Accreditation Canada, the Canadian Institute for Health Information (CIHI), and the Canadian Patient Safety Institute (CPSI) share information about falls and falls prevention in acute care, long-term care, and home care settings to provide a comprehensive picture of falls and falls prevention strategies in Canadian health care.

To examine the burden of falls in Canada, CIHI hospitalization data was analyzed. Key findings included:

- Nationally, the fall-related hospitalization rate was approximately 16 per 1,000 seniors from 2006–2007 to 2012–2013. Rates ranged from 11.7 per 1,000 population in Newfoundland and Labrador to 16.3 per 1,000 population in Prince Edward Island.
- Seventeen percent of hospitalizations were the result of falls in residential institutions, which represents more than 80,000 fall-related hospitalizations.
- Half of all fall-related hospitalizations occurred as a result of falls in the home. The majority of remaining hospitalizations occurred as a result of falls in residential institutions, schools, and public areas.
- Eight percent of fall-related hospitalizations ended in death.

An examination of falls in home and continuing care revealed:

- There was a lower percentage of residents classified as high-risk in hospital-based continuing care as compared to residential-based continuing care.
- There was a higher rate of falls in residential-based continuing care as compared to hospital-based continuing care. The higher rates of falls in the residential sector could be partially explained by the greater freedom of movements of the residents or the higher use of medications that may increase the risk of falls in residential-based care.

To assess how the Canadian health system is performing with regards to falls prevention, results from two of the Accreditation Canada Required Organizational Practices (ROPs)—the *Falls Prevention Strategy ROP* and the *Home Safety Risk Assessment ROP*—are reported. ROPs are evidence-based practices that mitigate risk and contribute to improving the quality and safety of health services. Compliance with these ROPs provides a measure of Canadian health care organizations' efforts to improve patient safety and reduce injury from falls.

The *Falls Prevention Strategy ROP* states that "The team implements and evaluates a falls prevention strategy to minimize client injury from falls." From 2011 to 2013, the *Falls Prevention Strategy ROP* was evaluated in 746 health care organizations.[i] National compliance with the *Falls Prevention Strategy ROP* increased from 75% in 2011 to 80% in 2012 and 2013.

The *Home Safety Risk Assessment* ROP states that "The team conducts a safety risk assessment for clients receiving services in the home." From 2011 to 2013, the *Home Safety Risk Assessment ROP* was evaluated in 240 health care organizations.[ii] Compliance with the *Home Safety Risk Assessment ROP* was consistently high (93% to 94%) from 2011 to 2013.

To drive improvement in falls prevention, in 2008 CPSI partnered with the Registered Nurses' Association of Ontario to lead the *Safer Healthcare Now!* Reducing Falls and Injuries From Falls Intervention. Since that time, the partnership has seen the development of tools and resources to support health care organizations in their improvement journey including the *Safer Healthcare Now!* Falls Prevention/Injury Reduction Getting Started Kit (GSK). The GSK assists professionals working across the health care continuum to implement falls prevention/injury reduction programs for seniors. Teams implementing the evidence-based strategies in the kit also have access to national calls/webinars, targeted improvement programs, standardized measures, and an online reporting system. Teams have demonstrated improvements in their processes correlated with a reduction in the percentage of falls causing harm.

There are a number of resources and research products available to support Canadian health care teams in their ongoing falls prevention efforts. These include:

- The Accreditation Canada Leading Practices database, at www.accreditation.ca, which contains successful practices from organizations across the care continuum. Leading Practices are innovative and creative, client- and family-centred, evaluated, able to demonstrate intended results, sustainable, and adaptable.

i. The 746 organizations include: 153 health systems, 143 acute care organizations, 267 long-term care organizations, 43 home care organizations, 19 mental health organizations, and 121 other organizations including residential homes for seniors, Aboriginal health services organizations, and organizations providing acquired brain injury services, cancer care, community health services, hospice palliative care, rehabilitation, and respiratory services.

ii. The 240 organizations include: 127 health systems, 54 home care organizations, and 59 other organizations including Aboriginal health services organizations, long-term care organizations, and those providing home support services and case management services.

- Global Patient Safety Alerts, www.globalpatientsafetyalerts.com, is an evidence-informed collection of patient safety incidents in the form of alerts and advisories. Contributing organizations share information about patient safety incidents, the immediate risk, mitigation actions that were taken, what was learned, and the solutions developed to reduce and prevent reoccurrence.
- Continuing research projects including the Technology for Injury Prevention in Seniors (TIPS) program at Simon Fraser University and the Strategies and Actions for Independent Living (SAIL) Evaluation Study in British Columbia.

Future Accreditation Canada program enhancements, CPSI's National Integrated Patient Safety Strategy, and ongoing data collection and reporting from CIHI will continue to support Canadian health organizations in implementing effective falls prevention strategies to reduce harm from falls. Working together with patients and families, the number of falls and injuries suffered from falls can be reduced.

A National Concern

Experiencing a fall can have a devastating physical and psychological impact resulting in disability, chronic pain, loss of independence, reduced quality of life, and even death (Public Health Agency of Canada, 2014). Falls among seniors have become a significant health concern in Canada.

Irene Wald's 80 year-old father was in a weakened state after surgical complications. Afraid that he would fall trying to get out of bed, Irene visited the hospital three times a day to assist him with this task. One day between Irene's visits Mr. Wald was moved to a restraining chair and left unattended. The restraining chair that was supposed to prevent falls tipped over and, alerted by Mr. Wald's cries, a passerby found him on the floor. Tragically, Ambrose Wald died five days after that fall.

The learnings from her father's death have given Irene Wald of Saskatchewan the inspiration to work as a patient advocate with Patients for Patient Safety Canada. Patients for Patient Safety Canada is a patient-led program of the Canadian Patient Safety Institute that champions the patient's voice to advance safe healthcare.

www.patientsforpatientsafety.ca

More than one third of seniors (individuals 65 years and older) experience a fall (American Geriatrics Society and British Geriatrics Society, 2010). Falls are known to be the leading cause of injury for seniors across Canada, accounting for over 85% of all injury-related hospitalizations (Scott et al., 2011). The incidence of falls among seniors is set to increase given Canada's aging population. According to data from the Census of Population, seniors accounted for 15% of the population in 2011. By 2031, it is projected that seniors will make up nearly one quarter of Canada's entire population (Statistics Canada, 2011). From 2003 to 2008, the number of deaths due to falls in Canada increased by 65% (Public Health Agency of Canada, 2014) and the number of falls is expected to increase as seniors make up a greater proportion of the Canadian population.

From an economic perspective, falls are a significant burden to the health care system due to the resulting need for services including physician visits, prolonged hospital and nursing home care, outpatient clinics, and rehabilitation services.

The Economic Cost of Falls in Canada

- Falls are a leading cause of overall injury costs in Canada. The total economic burden of falls is estimated at $6 billion annually (Parachute Canada, 2014).
- The direct health care costs for fall-related injuries are $2 billion annually. The cost for Canadian seniors (per capita) was 3.7 times higher than for younger adults (Smartrisk, 2009).
- In 2011, seniors accounted for 15% of Canada's population (Statistics Canada, 2011). By 2031, it is projected that approximately $4.4 billion will be spent on direct health care costs for fall-related injuries for seniors (Scott et al., 2011).

The evidence highlights the substantial negative impact of falls on the quality of life of Canadians and our health care system. The evidence points to a need to better understand the burden of falls on the individual and the health care system, and the need to support improvements in falls prevention initiatives across the country. Some falls lead to hospitalization and other falls occur while an individual is within a home care setting or a health care institution as a client or resident. Both categories are important; however, the focus of this report is on falls prevention strategies in health care settings across Canada. Studies in acute care settings show that fall rates range from 1.3 to 8.9 falls per 1,000 patient days, with higher rates in units that focus on geriatric care, neurology, and rehabilitation (Oliver, 2010).

How are Canadian health care organizations progressing with falls prevention programs across the continuum of care? Which components of falls prevention strategies do organizations excel at and which remain opportunities for improvement? Which populations are at greatest risk of falls and would benefit most from falls prevention programs? What tools are available to support organizations with falls prevention initiatives? In this report, three national health care organizations—Accreditation Canada, the Canadian Institute for Health Information (CIHI), and the Canadian Patient Safety Institute (CPSI)—share information about falls and falls prevention in acute care, long-term care and home care settings. This report highlights national statistics related to falls across the continuum of care, as well as initiatives and collaborations under way by the three national organizations.

Falls Across the Continuum of Care

What are the risks of falls in the home or in the continuing care setting, including the use of medications that are known to increase the risk of falls? What do we know about fall-related hospitalizations among seniors, including those resulting from falls in hospitals? What are the consequences of fall-related hospitalizations for hospitalized individuals and the health care system? These questions are explored in this section.

Risk of Falls in Home and Continuing Care Settings

Home care and continuing care offer services to individuals with declining autonomy in daily activities due to age, chronic illness, injuries, or disabilities. These conditions all increase the risk of falls.

Home Care and Continuing Care

Home care services allow clients who do not need to be in a long-term care home or a complex care centre to remain safely in the community.

Continuing care consists of two different types of care: residential-based and hospital-based.

- ***Residential-based care*** encompasses a range of living options for people, primarily seniors, with different support needs. Long-term care facilities offer 24 hour, 7 day a week nursing services to their residents, most of whom live permanently in the facility. They tend to service residents who cannot live safely or independently at home because of chronic illness, or decline in physical or cognitive function. Residential care facilities are commonly known as nursing homes, personal care homes, or long-term care facilities.
- ***Hospital-based continuing care*** serves individuals who may not be ready for discharge from the hospital but who no longer need acute care services. Also known as extended care, chronic care, or complex continuing care, it provides ongoing professional services to a diverse population with complex health needs.

Because of the differences in the populations, the two sectors are studied separately in this report.

The most powerful predictor of a fall is a history of falling. In home care and continuing care settings, individuals at risk of falling are identified on the basis of their history of falls. Individuals with a history of multiple falls are considered at high risk, while those with a single previous fall are considered at medium risk.

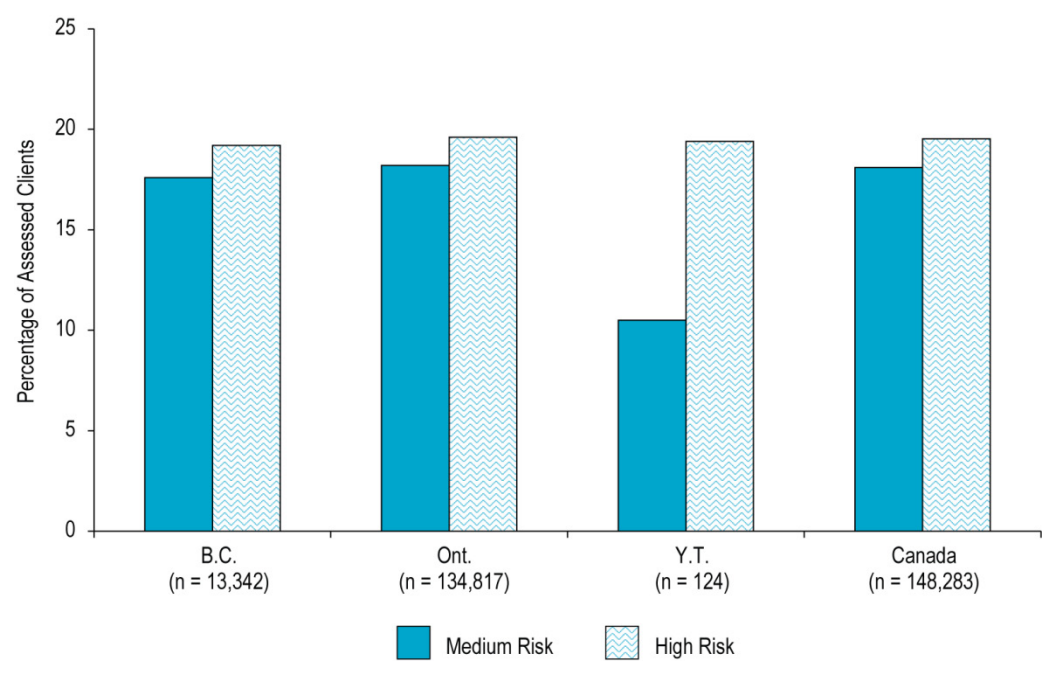
Data Sources

In home care and continuing care settings, clients and residents are assessed using the clinical assessment tool called the Resident Assessment Instrument–Minimum Data Set (RAI-MDS 2.0©). To assess the risk of falls in home care and continuing care settings, a measure derived from the tool, the Falls Clinical Assessment Protocol (CAP), is used. The use of medication that increases the risk of falls among seniors is examined with data from CIHI's National Prescription Drug Utilization Information System (NPDUIS) Database and a second measure, the use of antipsychotic medication, derived from the RAI-MDS 2.0 tool.

Figures 1 and 2 show the percentages of home care clients and continuing care residents[iii] whose assessments place them into the medium and high risk categories for falls.

Over one third of assessed home care clients were at risk of falling (Figure 1), which represents more than 55,000 clients. About 16% of assessed residents in residential care—or about 25,000 residents—across Canada were at risk, with variation across jurisdictions (Figure 2), and more than one quarter of those in hospital-based continuing care (see Figure A1: Percentage of Hospital-Based Continuing Care Residents at Risk of Falls in the appendix for additional details).

Figure 1: Percentage of Home Care Clients at Risk of Falls



Notes

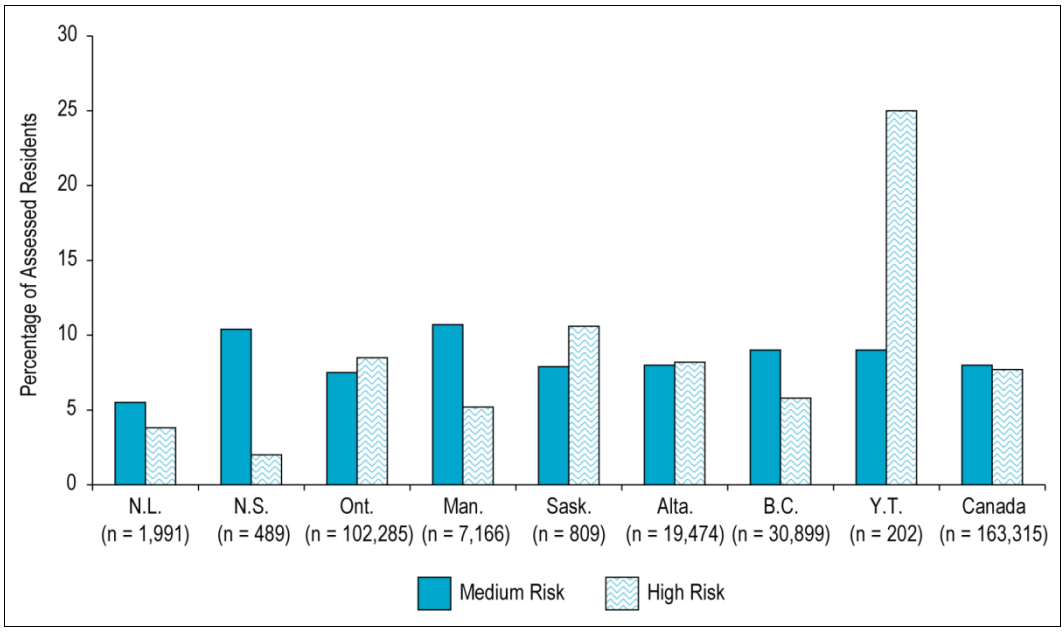
The statistics are calculated for all community-based home care clients assessed with the Resident Assessment Instrument–Home Care (RAI-HC©) instrument and for whom the data is being sent to CIHI. Community includes all residents living in private homes, apartments, condominiums, or in an assisted living setting. The total number of assessed residents is provided under each provincial label.

Source

Home Care Reporting System, 2013–2014, Canadian Institute for Health Information.

iii. The status of home care, residential-based and hospital-based continuing care data collection and submission varies between jurisdictions. For home care, data is submitted by three jurisdictions: British Columbia, Ontario, and Yukon. All of the residential-based continuing care facilities in British Columbia, Ontario, and Yukon submit their data to CIHI. As for hospital-based continuing care, all hospitals with continuing care beds in Ontario submit their data to CIHI. For other provinces, CIHI may have incomplete coverage and the results presented here are exploratory.

Figure 2: Percentage of Residential-Based Long-Term Care Residents at Risk of Falls



Note

Results for Ontario, British Columbia, Alberta, and Yukon include all publicly funded facilities in that province/territory. Results for the remaining provinces/territories are based on partial coverage [i.e., only facilities submitting data to the Continuing Care Reporting System (CCRS)].

Source

Continuing Care Reporting System, 2013–2014, Canadian Institute for Health Information.

Although the overall percentage of clients at risk was higher in hospital-based versus residential-based care (27% versus 16%), in Ontario and Manitoba the percentage of assessed individuals at *high* risk of falls is lower in hospital-based continuing care than in residential continuing care settings (6% versus 9% in Ontario, and 1% versus 5% in Manitoba).

There may be a number of reasons for this difference, related to the populations, contexts and reporting of falls in the two settings. Individuals in hospital-based continuing care may be less mobile because they are more medically unstable or have complex health conditions, while individuals in residential care are more likely to use medication that increases the risk of a fall.

Medication Use and Risk of Falls

A number of prescription medications have been associated with an increased risk of falls, particularly when used by seniors (Bronskill et al., 2009; Hill et al., 2012). These include psychotropic drugs such as benzodiazepines, antidepressants, and antipsychotics. The increase in falls may be related to the use of these drugs or due to the underlying medical conditions that the drugs are treating (Lindsey, 2009).

Data from the National Prescription Drug Utilization Information System Database shows that in 2012 the rate of use of benzodiazepines, antidepressants, and antipsychotics among seniors in long-term care facilities was roughly two, three, and nine times higher, respectively, than among seniors living in the community (see Table A1: Rate of Use of Psychotropic Drugs in Long-Term Care Facilities, by Age Group of Seniors on Public Drug Programs in the appendix). The rate of use of each of the three classes decreased with age among seniors in long-term care facilities but increased with age among those living in the community.

Based on jurisdictions submitting data to CIHI's Continuing Care Reporting System for 2013–2014, slightly less than one third of assessed residents in residential-based continuing care took antipsychotic medication, while one fifth of hospital-based continuing care patients received such medication. Across jurisdictions submitting data to CIHI's Home Care Reporting System (British Columbia, Ontario, and Yukon) for the same period, less than 12% of assessed clients were prescribed antipsychotic medication.

Fall-Related Hospitalizations

Only a small proportion of falls—in Canada, approximately 10%—result in hospitalization (Smartrisk, 2009). The real extent of fall-related injury and other possible consequences of falls (such as loss of independence) are therefore underestimated by looking at fall-related hospitalization alone. Nevertheless, hospitalization data can provide additional insights about where falls occur and some of their consequences.

From 2006–2007 to 2012–2013, the fall-related hospitalization (FRH)[iv] rate for seniors was approximately 16 per 1,000 (see Figure A2: Fall-Related Hospitalization Rate (per 1,000 Population) in Canada, 2006–2007 to 2012–2013 in the appendix for breakdowns by individual year).

In 2012–2013, standardized FRH rates among seniors across Canadian provinces ranged from 11.7 per 1,000 in Newfoundland and Labrador, to 16.3 per 1,000 in Prince Edward Island (see Figure A3: Fall-Related Hospitalization Rates in Canadian Provinces and Territories, 2012–2013 in the appendix).

Fall-Related Hospitalizations in Canada

- In 2012–2013, Canadian seniors experienced 84,828 fall-related hospitalizations and 235,355 emergency department visits for falls.
- Half of all FRHs occurred as a result of falls in the home.
- In 2012–2013, in-hospital falls accounted for 3.4% of all FRHs (2,742 fall-related hospitalizations resulted from in-hospital falls).
- Almost one in five (19.5%) episodes with an in-hospital fall led to in-hospital mortality, representing 534 deaths associated with in-hospital falls in 2012–2013.

Sources
Hospital Morbidity Database and National Ambulatory Care Reporting System, 2012–2013, Canadian Institute for Health Information.

iv. All seniors (age 65 or over) with an FRH were defined as those with hospital discharges with diagnosis of unintentional fall indicated. Fall-related hospitalizations were calculated using episodes of care. An episode of care refers to all contiguous acute care hospitalizations. To construct an episode of care, transfers within and between facilities were linked.

Trajectories of Fall-Related Hospitalizations

Table 1 presents the four most common trajectories of seniors hospitalized for a fall. Eight percent of FRH result in in-hospital mortality. The largest group consists of those who fell at home and were able to be discharged to home, either with or without support. One third of seniors with a fall-related hospitalization were discharged to continuing care, and 45% of these were seniors whose fall occurred at home.

Overall, 15% of FRH were for falls that occurred at home and that resulted in a discharge to continuing care, illustrating the potentially life-changing consequences of a fall. This group, whose fall at home resulted in a discharge to continuing care, also accounted for the majority of alternate level of care (ALC)[v] days among seniors with a fall-related hospitalization.

Table 1: Trajectories of Individuals Discharged From the Hospital After a Fall, 2012–2013

Trajectory	Percentage of Fall-Related Hospitalizations
Home to Home With or Without Support[vi]	40
Home to Continuing Care	15
Residential Institution to Continuing Care	10
In-Hospital Mortality	8

Source
Hospital Morbidity Database, 2012–2013, Canadian Institute for Health Information.

Fall-Related Hospitalization and Alternate Level of Care

About three quarters of seniors who were hospitalized for a fall from 2006–2007 to 2012–2013 spent one week in hospital.[vii] This length of stay showed little variation over the study period. About one quarter spent roughly 3.5 times longer in the hospital.

Although it decreased over the study period from 29 to 24 days, the length of stay for FRH with time spent in alternate level of care (ALC) was much higher than for those without time in ALC (see Table A2: Volume and Median Length of Stay, all FRH and FRH With/Without ALC in the appendix). As noted above, the majority of those spending time in ALC were individuals awaiting placement in continuing care. Compared to hospitalizations for seniors that were not fall related, seniors experiencing an FRH were four times as likely to spend time in ALC.

v. Alternate level of care (ALC) identifies a patient who has completed the acute care phase of his or her treatment but remains in the acute care bed.
vi. Includes people with falls of unspecified place of occurrence who were discharged to home.
vii. Data for Quebec is excluded due to data limitations.

Relationship Between Hip Fractures and FRH in Canada, 2009–2010 to 2012–2013

Falls cause the majority of fractures in seniors, with hip fractures being the most common serious injury (Fuller, 2000; Jager et al., 2000; Ro et al., 2005; Scott et al., 2010). Approximately half of all those who fall and fracture their hips will never be able to functionally walk again, and one in five die within six months (Luxton & Riglin, 2003).

- For in- and out-of-hospital hip fractures, over 9 of every 10 hip fractures in seniors were associated with an FRH.
- Roughly one third of FRH are associated with a hip fracture.
- People with in- and out-of-hospital hip fractures were more likely to be discharged to continuing care (43% and 49%, respectively) compared to those with an FRH without a hip fracture (25%).
- In-hospital mortality was much higher for FRH with an in-hospital hip fracture (28%), compared to FRH with an out-of-hospital hip fracture (9%) or no hip fracture (8%). See Table A3: Hip Fractures (In- and Out-of-Hospital) and FRH in Canada in the appendix.

Falls Prevention in the Accreditation Canada Qmentum Program: How Are Canadian Organizations Performing?

It is important to ensure that prevention strategies are in place to prevent falls and injury from falls that occur in the home and in residential and long-term care institutions. Falls prevention strategies are assessed as part of the Accreditation Canada Qmentum program. The following section highlights results from two of the Accreditation Canada Required Organizational Practices (ROPs)—the *Falls Prevention Strategy ROP* and the *Home Safety Risk Assessment ROP*. Compliance with these ROPs provides a strong measure of Canadian health organizations' efforts to improve patient safety and reduce injury from falls.

Over 1,200 organizations (6,000 health care delivery sites of differing size, scope and context) participate in Accreditation Canada programs every year. Organizations accredited by Accreditation Canada undergo a rigorous evaluation process. Following a comprehensive self-assessment, trained surveyors from accredited health organizations conduct an on-site survey to evaluate the organization's performance against the Accreditation Canada national standards.

A key part of the Accreditation Canada on-site survey is determining whether organizations meet ROPs. First introduced into the accreditation program in 2005, ROPs are evidence-based practices that mitigate risk and contribute to improving the quality and safety of health services. ROPs are developed with input from health care experts including practitioners, researchers, policy makers, ministry of health representatives, academics, and health services providers at the provincial, territorial, and national levels. Existing initiatives and priorities within each jurisdiction are also important considerations in the ROP development process. The ROPs are supported by research, including impact on patient outcomes and cost.

The *Falls Prevention Strategy ROP*

The *Falls Prevention Strategy ROP* was introduced into the Accreditation Canada Qmentum program in 2008. It contains a goal statement, a guideline with rationale and supporting evidence, and tests for compliance. Each test for compliance is rated during the on-site survey as met or unmet. An organization must meet all tests for compliance to be considered as having met the ROP.

The *Falls Prevention Strategy ROP* requires that:

The team implements and evaluates a falls prevention strategy to minimize client injury from falls.

Compliance with the *Falls Prevention Strategy ROP* has increased since it was introduced into the Qmentum program in 2008, yet opportunities remain for further improvement.

From 2011 to 2013, the *Falls Prevention Strategy ROP* was evaluated in 153 health systems, 143 acute care organizations, 267 long-term care organizations, 43 home care organizations, and 19 mental health organizations. In addition, the ROP was evaluated in 121 other organizations.[viii]

Compliance with the *Falls Prevention Strategy ROP* has increased since it was introduced into the Qmentum program in 2008, yet opportunities remain for further improvement. Many of the early challenges focused around resources required to implement a comprehensive falls prevention strategy, and a lack of readily available educational resources and tools to assist organizations. Since the ROP was introduced, many organizations have implemented comprehensive falls prevention programs. In all health care settings falls prevention initiatives must balance the needs of the client with the implementation of falls-related interventions, such as the use of restraints, to ensure that the dignity of risk[ix] is appropriately managed (College of Nurses of Ontario, 2009).

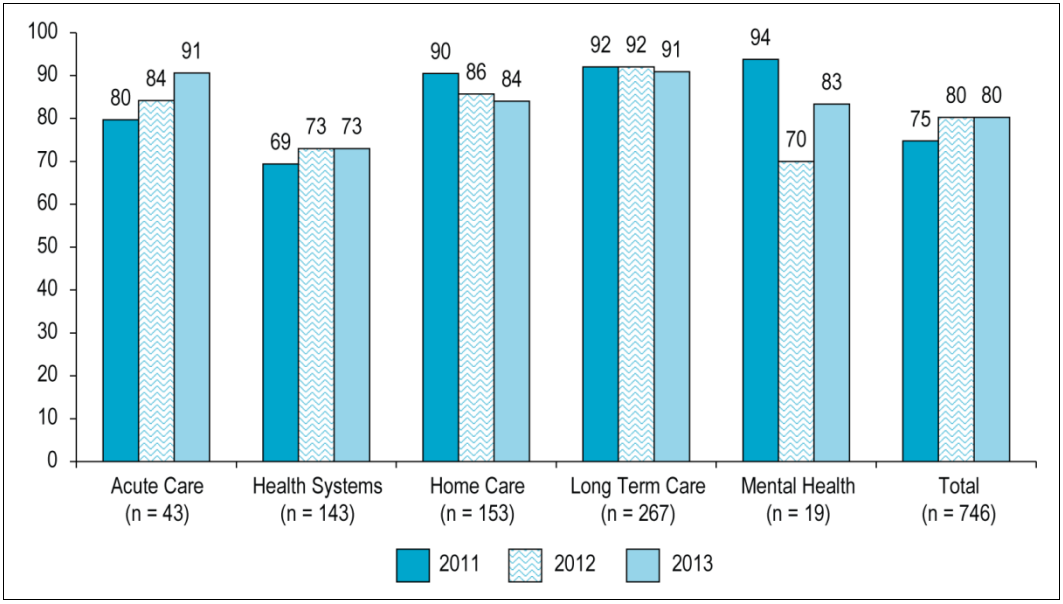
National compliance indicates the percentage of organizations in Canada that were evaluated against an ROP in a given year that successfully met all of the tests for compliance. As shown in Figure 3, national compliance with the *Falls Prevention Strategy ROP* increased from 75% in 2011 to 80% in 2012 and in 2013.

viii. Other organizations include residential homes for seniors, Aboriginal health services organizations, and organizations providing acquired brain injury services, cancer care, community health services, hospice palliative care, rehabilitation, and respiratory services.

ix. Dignity of risk refers to respecting each individual's self-determination to make choices for themselves (Disability Practice Institute, 2014).

Compliance was highest in acute care and long-term care organizations (over 90% in 2011, 2012, and 2013). Decreases were noted in the home care and mental health sectors; however, some of the variation might be due to the different mix of organizations surveyed in different years. Increases have been modest in health systems, where compliance was 73% in 2013. In health systems, the implementation of the ROP across a wide range of service areas throughout the entire system often proves challenging. These results suggest that falls prevention continues to be an opportunity for improvement in many Canadian health care sectors and organizations.

Figure 3: Accreditation Canada *Falls Prevention Strategy ROP*, National Compliance, by Sector, 2011–2013



Note

Health systems include health authorities and Centres de santé et de services sociaux (CSSS) in Quebec.

The *Falls Prevention Strategy ROP* is evaluated in 21 areas of care. In 2013, national compliance with the ROP was highest in organizations using the *Acquired Brain Injury Services Standards* (full compliance) and lowest (48%) in those using the *Medical Imaging Centres Standards* (the ROP was evaluated in medical imaging centres beginning in 2013). For national compliance by standards set and service area, see Table A4: Accreditation Canada *Falls Prevention Strategy ROP*, National Compliance, by Standards Set, 2011–2013 in the appendix.

Table 2 shows the tests for compliance for the *Falls Prevention Strategy ROP*. The lowest-rated tests for compliance are "the team uses the evaluation information to make improvements to its falls prevention strategy" and "the team establishes measures to evaluate the falls prevention strategy on an ongoing basis." Surveyors have noted that in some organizations measures do not exist to assess the effectiveness of the falls prevention strategy, or no evaluation of the strategy has been completed. For compliance results by test for compliance and standards set, see Table A5: Accreditation Canada *Falls Prevention Strategy ROP*, National Compliance, by Tests for Compliance and Standards Set, 2011–2013, in the appendix.

Surveyors have noted that in some organizations measures do not exist to assess the effectiveness of the falls prevention strategy, or no evaluation of the strategy has been completed.

Table 2: Accreditation Canada *Falls Prevention Strategy ROP* Tests for Compliance, National Compliance, 2011–2013

Test for Compliance	National Compliance (%)		
	2011	2012	2013
The team implements a falls prevention strategy.	85	88	89
The strategy identifies the populations at risk for falls.	88	88	90
The strategy addresses the specific needs of the populations at risk for falls.	87	88	89
The team establishes measures to evaluate the falls prevention strategy on an ongoing basis.	79	82	82
The team uses the evaluation information to make improvements to its falls prevention strategy.	77	81	81

The *Home Safety Risk Assessment ROP*

The *Home Safety Risk Assessment ROP* was introduced into the Accreditation Canada Qmentum program in 2010 for evaluation during on-site surveys beginning in January 2011. Organizations providing home care have little direct control over risks in a client's home environment; however, the safety of clients, families, and staff involved in home health services is enhanced when a risk assessment is conducted. Assessing and mitigating fall hazards are a key component of the home safety risk assessment. Results from a home safety risk assessment can be used to select priority service areas, can help identify safety strategies to include in service plans, and to communicate to clients, families, and partner organizations. Risk assessments safeguard both the client and staff.

This ROP requires that:

"The team conducts a safety risk assessment for clients receiving services in the home."

From 2011 to 2013, the *Home Safety Risk Assessment ROP* was evaluated in 127 health systems, and 54 home care organizations. In addition, the ROP was evaluated in 59 other organizations.[x] As shown in Table 3, compliance with the *Home Safety Risk Assessment ROP* has been consistently high (93% to 94%). Compliance has been lower in health systems; however, the implementation of the ROP across a wide range of service areas across the entire organization may prove more challenging.

Table 3: Accreditation Canada *Home Safety Risk Assessment ROP*, National Compliance, by Sector, 2011–2013

Sector	National Compliance (%)		
	2011	2012	2013
Health Systems	93	85	90
Home Care	100	100	100
All Sectors	94	93	93

The *Home Safety Risk Assessment ROP* contains five tests for compliance. Each test for compliance is rated by surveyors as met or unmet, and an organization must meet all five tests for compliance in order to have met the ROP.

Table 4 shows compliance for each test for compliance. Compliance results for each test for compliance have been consistently high for the *Home Safety Risk Assessment ROP*. For national compliance by test for compliance and standards set, see Table A6: Accreditation Canada *Home Safety Risk Assessment ROP* Tests for Compliance, National Compliance, Home Care Services Standards Set, 2011–2013 in the appendix. Full compliance with the ROP was achieved for organizations using the *Case Management Services Standards* and *Home Support Services Standards*.

Table 4: Accreditation Canada *Home Safety Risk Assessment ROP* Tests for Compliance, National Compliance, 2011–2013

Test for Compliance	National Compliance (%)		
	2011	2012	2013
The team conducts a safety risk assessment for each client at the beginning of service.	97	93	95
The safety risk assessment includes a review of: internal and external physical environments; chemical, biological, fire and falls hazards; medical conditions requiring special precautions; client risk factors; and emergency preparedness.	96	97	97
The team uses information from the safety risk assessment when planning and delivering client services, and shares this information with partners who may be involved in planning of care.	98	95	95
The team regularly updates the safety risk assessment and uses the information to make improvements to the client's health services.	95	95	94
The team educates clients and families on home safety issues identified in the risk assessment.	98	95	95

x. Other organizations also include Aboriginal health services organizations, and those organizations providing home support services and case management services.

Fostering Improvement in Falls Prevention: The Canadian Patient Safety Institute's *Safer Healthcare Now!* Program

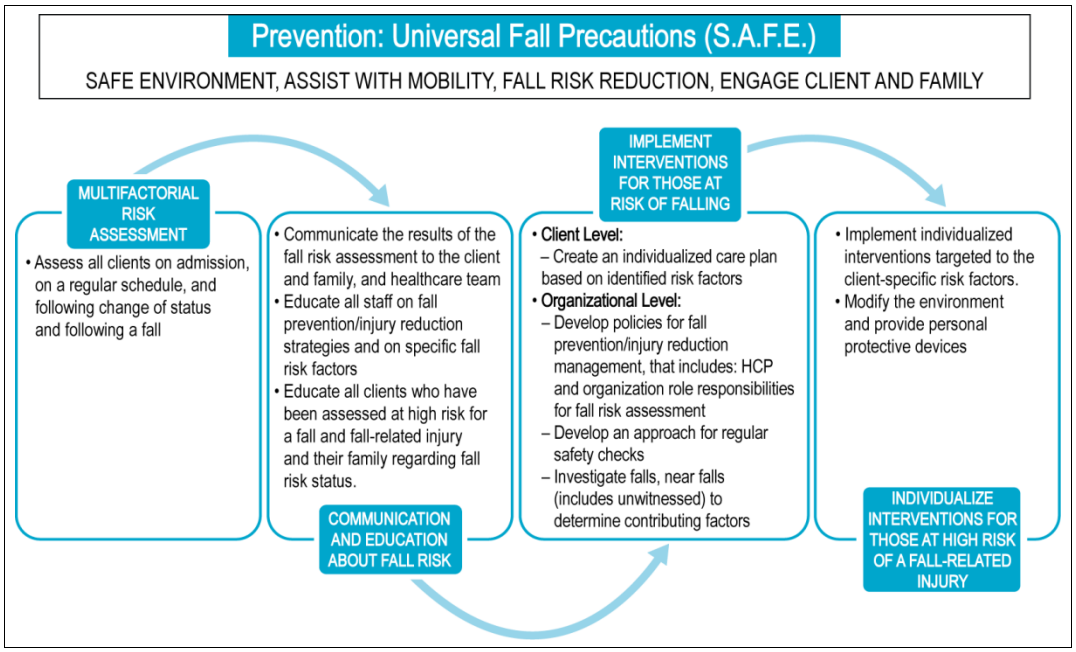
Given the prevalence of health care–associated falls in Canada and the continuing focus on falls prevention strategies across the care continuum, what resources have been developed to support organizations in their falls prevention efforts? For the past decade the Canadian Patient Safety Institute has been striving to support improvements in quality and patient safety throughout the Canadian health system. In 2008, CPSI partnered with the Registered Nurses' Association of Ontario to lead the *Safer Healthcare Now!* (SHN) Reducing Falls and Injuries From Falls Intervention. Since that time, the partnership has seen the development of tools and resources to support health care organizations in their improvement journey.

Safer Healthcare Now! Falls Prevention/Injury Reduction Getting Started Kit

The *Safer Healthcare Now!* Falls Prevention/Injury Reduction Getting Started Kit, available at www.saferhealthcarenow.ca, is a guide to assist professionals working across health sectors (acute care, long-term care, and home health care) to implement falls prevention/injury reduction programs for individuals 65 years and older. The Getting Started Kit details evidence-based strategies to initiate and enhance falls prevention and injury reduction work.

The Getting Started Kit includes a description of the five main components of falls prevention and injury reduction intervention strategies for staff in acute care, long-term care, and home care. Figure 4 outlines the falls prevention/injury reduction intervention model. The five main components to the falls prevention/injury reduction model include: prevention, multifactorial risk assessment, communication and education about fall risk, implementation of interventions for those at risk of falling, and individualized interventions for those at high risk of a falls-related injury.

Figure 4: Falls Prevention/Injury Reduction Intervention Model



National Calls/Webinars

Safer Healthcare Now! hosts national patient safety webinars that disseminate emerging evidence and help stimulate knowledge transfer through sharing the stories and effective practices of exemplary teams. For example, in November 2013 over 220 lines were open for an interactive presentation by Dr. Michael Gardam on frontline ownership and positive deviance as applied to falls prevention (a concept originating in the infection prevention and control field). Notices for upcoming calls and past webinar recordings including "How is my resident falling" by Dr. Stephen Robinovitch are available at www.saferhealthcarenow.ca.

Improvement Programs

To assist teams in accelerating improvement initiatives and to aid in sharing, learning, and collaboration among health care teams, improvement advisors and clinical falls experts at *Safer Healthcare Now!* have offered improvement programs focused on falls prevention and injury reduction. Since 2008, SHN has delivered a number of improvement programs in partnership with the Registered Nurses' Association of Ontario, the Saskatchewan Ministry of Health, and the Saskatchewan Health Quality Council.

Measures

The overall aim for the SHN Falls Intervention is to reduce falls and injury from falls by 40%. Teams participating in the intervention have the opportunity to set local quality improvement aims when developing their team's improvement charter, based on their current situation and potential for improvement.

A significant component of the Falls Intervention is measurement. The Falls Intervention is associated with 19 acute care and long-term care measures, and 6 home care measures (see Table A7: *Safer Healthcare Now!* Falls Intervention Measures in the appendix). Data submission to the *Safer Healthcare Now!* Central Measurement Team is strongly encouraged as a means to monitor progress toward improvement goals. Since 2008, over 190 organizations have submitted data to the SHN acute care, long-term care, and home care falls intervention. A multi-indicator, patient-level data collection form (audit tool) has been released to support teams in their falls improvement program (see Figure A4: *Safer Healthcare Now!* Falls Prevention Data Collection Form in the appendix). Easy to use, the tool uses optical mark recognition technology to reduce the burden of data collection.

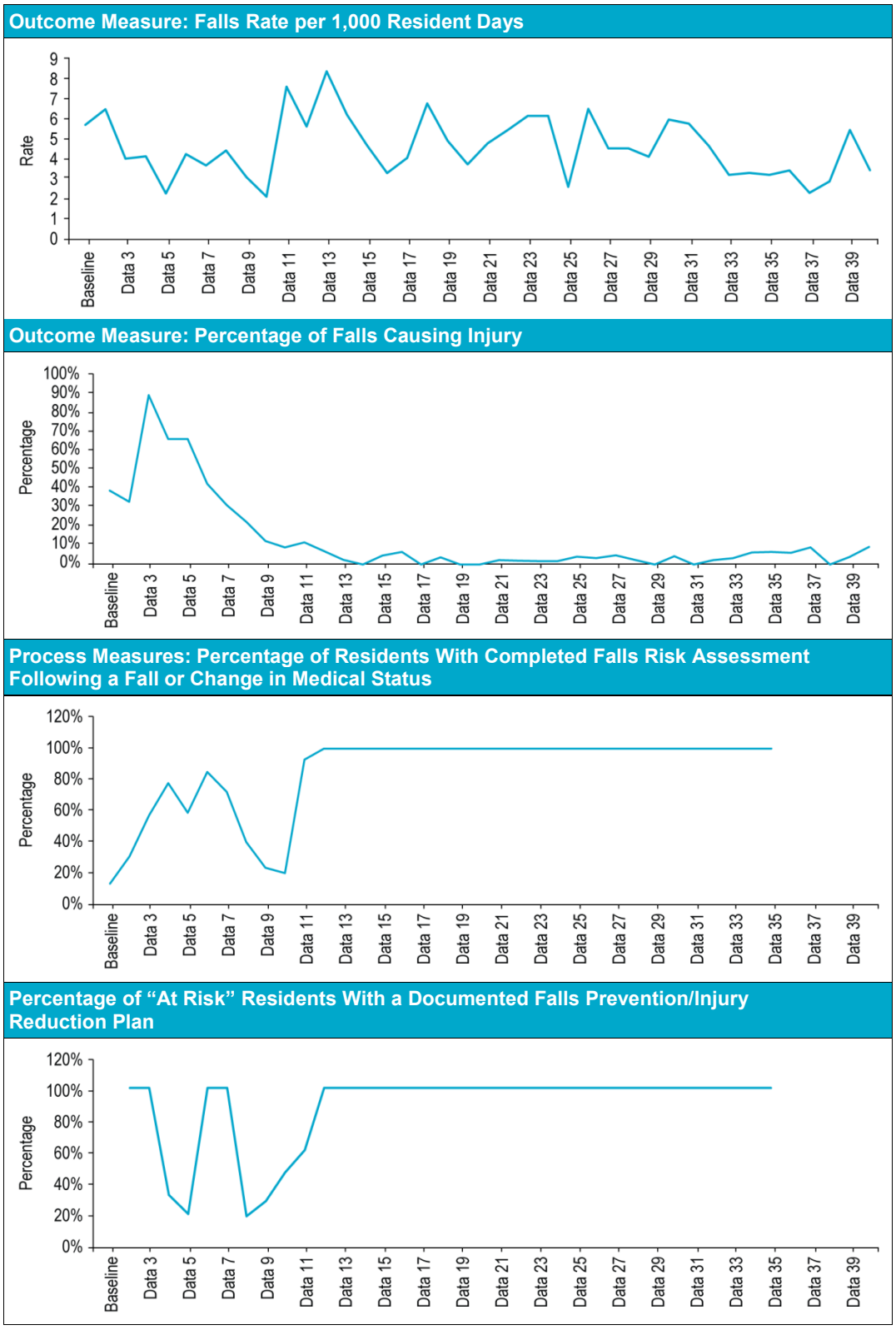
Results

The rate of falls reported in SHN falls collaboratives demonstrated significant variation over time in part due to:

- State of readiness of participating teams
- Small sample sizes
- Presence of one or more patients/residents who fall frequently
- Increased awareness resulting in an increase in the number of falls reported
- Other related factors including new admissions, staff turnover, and support from family members

Despite the minimal improvement in the rate of falls, teams have demonstrated significant improvements in their processes that seem to be correlated with a reduction in the percentage of falls causing injury. An example of a team's performance demonstrating this trend is shown in Figure 5.

Figure 5: *Safer Healthcare Now!* Data: Sample Data From a Long-Term Care Facility



Lessons Learned

A number of lessons have been learned from the SHN Falls Intervention and collaborative programs (MacLaurin & McConnell, 2011):

- Participation in the SHN Falls Intervention and improvement programs are helpful in keeping falls prevention a priority in the workplace.
- Positive changes in process measures support progress toward improved outcomes.
- Sustaining improvements is challenging and requires ongoing commitment by all members of the team.
- The experiences gained through the improvement programs continue to inform the work of both SHN and the Registered Nurses' Association of Ontario as they continue to support the uptake of evidence into practice.

A *Safer Healthcare Now!* Saskatchewan Falls Collaborative Success Story: Cypress Health Region's Multi-Disciplinary Approach to Eliminate Fall-Related Injuries

To reach their goal of developing a falls prevention strategy to increase patient safety and meet the Accreditation Canada *Falls Prevention Strategy ROP*, the Cypress Health Region in Saskatchewan implemented a multi-disciplinary team approach. The process involved health care staff, patients, and residents, working together toward the elimination of fall-related injuries in long-term care, acute care facilities, and home care. While the goal of decreasing the number of falls resulting in injury by 50% by March 31, 2014, has been realized, falls data will continue to be monitored to ensure improvements are sustained.

Initially, six long-term care facilities were brought on board to develop Plan–Do–Study–Act cycles and implement the *Safer Healthcare Now!* bundle. Work has since spread to the six other long-term care facilities within the region. The Scott Fall Risk Screening Tool is used to assess patients and residents on admission and customized care plans are developed to address the risks of falling. Protective devices such as treaded socks and hip protectors have been tested and implemented, and facilities are working with local physicians to increase the percentage of residents on vitamin D, which helps to reduce the risk of falls and fractures.

To improve communication on preventing falls, a brochure was developed for residents and families. A safety newsletter was developed for the organization and metrics on falls prevention are posted at all facilities. Falls champions meet quarterly to share ideas and discuss falls prevention strategies, and staff huddles take place around the metrics wall to increase awareness. Switching to electronic reporting has increased huddles and ensured post-fall assessments are completed and that the family and care team are involved or notified of falls immediately.

Home care teams complete a detailed Client's Home as a Workplace form to make client homes a safer place to live and work through the use of falls risk assessments and evaluation strategies. Detailed falls diaries and calendars are completed by clients. A joint initiative that includes mobile health services (MHS), emergency medical services, home care, therapy, and other health disciplines allows clients to remain in their homes longer. MHS staff members go into a client's home and complete a Falls Risk Assessment, which includes recommendations for referrals to other disciplines, as well as a Home Risk Assessment in keeping with the Accreditation Canada *Home Safety Risk Assessment ROP*.

Acute care facilities in the Cypress Health Region in Saskatchewan initially began implementing a falls prevention program as part of the Releasing Time to Care quality improvement program. Taking learnings from the Releasing Time to Care and *Safer Healthcare Now!* bundles, along with recommendations from Accreditation Canada, the region has created a multi-disciplinary team consisting of nurses, physicians, pharmacists, therapists, housekeeping staff, and quality improvement staff to focus on preventing falls in acute care. This multi-disciplinary team has implemented Call Don't Fall, a falls awareness program that encourages patients and their families to call for assistance.

Continued Improvement in Falls Prevention and Injury Reduction: Innovations in Practice, Supporting Resources, and Ongoing Research

Accreditation Canada, CIHI, and CPSI continue to actively support quality improvements in Canadian health care organizations. Falls prevention remains an active field of research with numerous resources being developed across the country to support organizations and seniors in reducing falls and preventing injury from falls.

Safety at Home Study: A Look at Falls in Home Care

The *Safety at Home: A Pan-Canadian Home Care Study* is the first of its kind to examine adverse events in the home. The study includes recommendations on how to make care safer (Canadian Patient Safety Institute, 2013). Based on chart reviews and analysis of administrative data, the findings showed that the rate of adverse events in Canadian home care clients was 10% to 13% over a period of one year. Of these adverse events, over half were deemed preventable.

Falls, medication-related incidents, infections, and delirium were the main types of adverse events in the study, with falls accounting for 17% of the events identified in the chart review. The Safety at Home study found that home care clients typically have multiple risk factors that impact the probability and severity of falls. Effective policies and strategies that target falls prevention that lead to injuries are needed, especially for falls related to medication.

In follow up to this collaborative study involving CPSI, the Canadian Home Care Association, and Accreditation Canada, the lead researchers have been working to develop tools and resources for home care providers, deliver webinars and workshops, and provide input to enhance the Accreditation Canada standards and ROPs for home care. A focus of the knowledge translation process has been falls prevention, and the following products and activities have been developed:

- A learning lab for home care providers, presented at the Canadian Home Care Association 2013 summit, with a focus on falls prevention.
- An interactive webinar on falls prevention for home care organizations. An online learning module on falls prevention for home care providers is in progress.
- Enhancements to the Accreditation Canada standards and ROPs for home care. The findings of this study will help inform the risks identified as part of the *Home Safety Risk Assessment ROP* as well as the development of future ROPs for home care.
- A resource guide on falls prevention, with details on where to find resources for different audiences (clients, family, caregivers, and home care providers) informed by the work of a Pan-Canadian Steering Committee led by the Victorian Order of Nurses.

Accreditation Canada Leading Practices

Accreditation Canada recognizes Leading Practices across the care continuum and provides an excellent opportunity for sharing innovative practices from health organizations nationally and internationally. The Leading Practices Database fosters inter-organizational learning and the harvesting of new ideas. To be recognized as a Leading Practice, the practice must be:

- Innovative and creative
- Client- or family-centred
- Evaluated
- Able to demonstrate intended results
- Sustainable
- Adaptable by other organizations

Often, these Leading Practices are implemented by organizations with limited resources, showing how innovative and creative strategies can achieve positive results at a minimal cost. Organizations are encouraged to submit their leading practices at www.accreditation.ca.

Implementation of a Multi-Intervention Falls Prevention Strategy (William Osler Health System, Ontario): An Accreditation Canada Leading Practice

In 2009, the William Osler Health System in Ontario launched a revision of their falls prevention policy. The strategy focused on a comprehensive falls risk assessment, universal and high-risk interventions, re-assessment, documentation, evaluation, and ongoing monitoring. While the strategy was embraced, a subsequent review of falls suggested that the implementation had not had the anticipated impact. With the advent of the *Excellent Care for All Act* in Ontario, Osler identified falls prevention as a key indicator on their Quality Improvement Plan providing much needed impetus for an alternative approach to falls prevention. Over several months in 2011, a project team and frontline staff crafted an improvement plan as a secondary layer to the corporate falls strategy.

Process mapping exercises were done and transitions of care, patient flow, and team movements were also documented. Based on these activities, leverage points were prioritized and phased in over a number of months. Thirteen separate interventions were implemented and the rate of falls dropped from a rate of 11 per 1,000 patient days to a rate of 2 in less than four months, and, with two exceptions, remained below the benchmark of 6 for a year.

Two additional units implemented several of the strategies learned from pilots (e.g., purposeful rounding, bedside reports, and use of exit alarm frames) and observed similar reductions in the rate of falls.

Table 5 shows additional examples of leading and innovative practices related to falls prevention. See the Leading Practices Database at www.accreditation.ca for further information on any of these practices. All Leading Practices in the database are searchable by keyword, such as “falls prevention.”

Table 5: Accreditation Canada Leading and Innovative Practices

Organization	Title
The Hospital for Sick Children	Prevention of Inpatient Paediatric Falls/Entanglement, Strangulation, and Entrapment
Centre de santé et de services sociaux du Sud-Ouest–Verdun	Cardiopulmonary and Muscle Rehabilitation and Falls Prevention in Hemodialysis Patients
Humber River Regional Hospital	Tracking Patients to Prevent Falls From the Emergency Department Through Inpatient Units
Mississauga Halton Local Health Integration Network	Strong and Steady Falls Prevention Program: Preventing Falls in Seniors Through Activities to Improve Balance and Strength
Etobicoke Services for Seniors	Installation of Grab Bars and Running Boards on Transportation Vehicles to Improve Client and Staff Safety

Global Patient Safety Alerts

Publicly available through a web-based platform, Global Patient Safety Alerts is an evidence-informed collection of indexed patient safety incidents in the form of alerts and advisories, recognized by the World Health Organization and its member countries. Global Patient Safety Alerts contains more than 1,100 alerts and more than 5,800 recommendations from 24 contributing organizations around the world.

The goal of Global Patient Safety Alerts is to ensure that no one is without a solution to a problem others have already solved, and that no patient has to needlessly suffer harm as a result.

With Global Patient Safety Alerts, contributing organizations share information about patient safety incidents, the immediate risk mitigation actions that were taken, what was learned, and the solutions developed to reduce and prevent recurrence. The goal of Global Patient Safety Alerts is to ensure that no one is without a solution to a problem others have already solved, and that no patient has to needlessly suffer harm as a result.

In Canada to date, 26 alerts were directly categorized to the falls topic area and 41 alerts were retrieved when “falls” was the primary search term. Themes and identified risks among these alerts include patient immobility leading to falls, effect of medications leading to falls, increased risk of falls during night hours, issues with patient transfers, inadequate/lack of use of bed exit alarms and/or bed rails, and equipment or patient aids causing falls.

Global Patient Safety Alerts can be accessed through the CPSI website at www.patientsafetyinstitute.ca or at www.globalpatientsafetyalerts.com.

Canadian Falls Prevention Curriculum

The Canadian Falls Prevention Curriculum (CFPC) is an evidence-based, evaluated curriculum providing the knowledge and skills needed to apply a public health approach to the prevention of falls. Participants learn how to design, implement, and evaluate a falls prevention program tailored to their work or community setting. The CFPC is offered as a five-week facilitated e-learning course and a two-day facilitated workshop. Participants work through lessons from the text *Fall Prevention Programming: Designing, Implementing and Evaluating Fall Prevention Programs for Older Adults* (Scott, 2012). The course includes interactive learning, group discussion, and facilitator feedback on a program plan. All participants receive a certificate of completion and become members of the Canadian Falls Prevention Education Collaborative. More information can be found at www.canadianfallprevention.ca.

The Technology for Injury Prevention in Seniors (TIPS) Program at Simon Fraser University

Dr. Stephen Robinovitch, Professor and Canada Research Chair in Injury Prevention at Simon Fraser University in British Columbia, works with his team to develop new technologies to prevent falls and fall-related injuries. One focus of his research is to utilize video capture and wearable sensors to determine the causes and circumstances of falls in older adults. His team develops and tests the effectiveness of engineering interventions such as protective clothing and compliant flooring in reducing fall-related injuries.

As part of the TIPS program, Dr. Robinovitch and his team looked at over 1,000 surveillance videos in long-term care to examine the circumstances that led to falls. “While the videos were difficult to watch because you are seeing actual falls, they were very helpful and informative,” says Susan McNeill, Falls Intervention Lead at *Safer Healthcare Now!* and the Program Manager at the Registered Nurses’ Association of Ontario. Some recommendations from this research are to look at types of flooring that will minimize the impact of head injury, strategies to strengthen upper limbs so that residents can better prevent injury when falling, and determining whether or not falls are medication-related. For more information see www.sfu.ca/tips.

Strategies and Actions for Independent Living: Evaluation Study

To address risks for falls and related injuries in home care, a three-year study is underway to examine the impact, cost effectiveness, and sustainability of the Strategies and Actions for Independent Living (SAIL) program, a falls and injury prevention program for clients of publicly funded home support services. Funding for this project is provided by a Canadian Institutes of Health Research Partnerships in Health Systems Improvement grant that brings together multidisciplinary teams of experts from clinical practice, epidemiology, engineering, health economics, accreditation, and injury prevention.

> “I would like to see the incident report include the patient and family point-of-view on how the fall could have been prevented.”

The SAIL program consists of staff training on falls prevention and exercise for older adults, a home activity program for clients with three progressive levels of exercise, guidelines for high-risk fallers, a falls surveillance system, an interactive client risk assessment and prevention tool, and a client resources package that includes fire prevention education. Results from the SAIL study will be applied to improving the dissemination and sustainability of falls and fall-related injury prevention among older adults receiving home support services in Canada. With Accreditation Canada as a partner in this research, findings related to falls prevention and home safety will also be used to enhance the accreditation program.

A Family Member’s Perspective Following a Fall

Following the incident described in the introduction of this report, it took about a year before Irene Wald found the courage to discover what happened to her father who died five days after a fall. She wanted to see the incident report that was filled out. The incident report form used by the hospital was a tick-box format. There was a box on the form that said problem solved, and to her dismay that box was ticked.

Although Ambrose Wald died five days after the fall, it was never documented in the incident report. As a result, his death is not included in any statistics that indicate death following a fall. What she learned from her father’s death gave Irene the inspiration to work as a patient advocate with Patients for Patient Safety Canada to help prevent falls. “Often, you don’t know what you should be asking or what to expect. I should have asked the nurse to put a notation in the care plan not to get my dad out of bed when I am not there… I would like to see the incident report include the patient and family point-of-view on how the fall could have been prevented,” says Irene. “With full disclosure, you will know if the incident was accurately reported and if corrective action has been taken… If we are to learn from incidents, they need to be tracked and electronic processes implemented to facilitate that process.”

Looking Ahead: What Is Next in Falls Prevention?

The innovative practices highlighted in this report demonstrate that realistic improvements in preventing falls and injuries from falls are possible and sustainable. Given the profound impact of falls on Canadians' quality of life, and the increased risk of falls being faced by an aging Canadian population at home and during the course of health care delivery, organizations must continue to work together to improve safety.

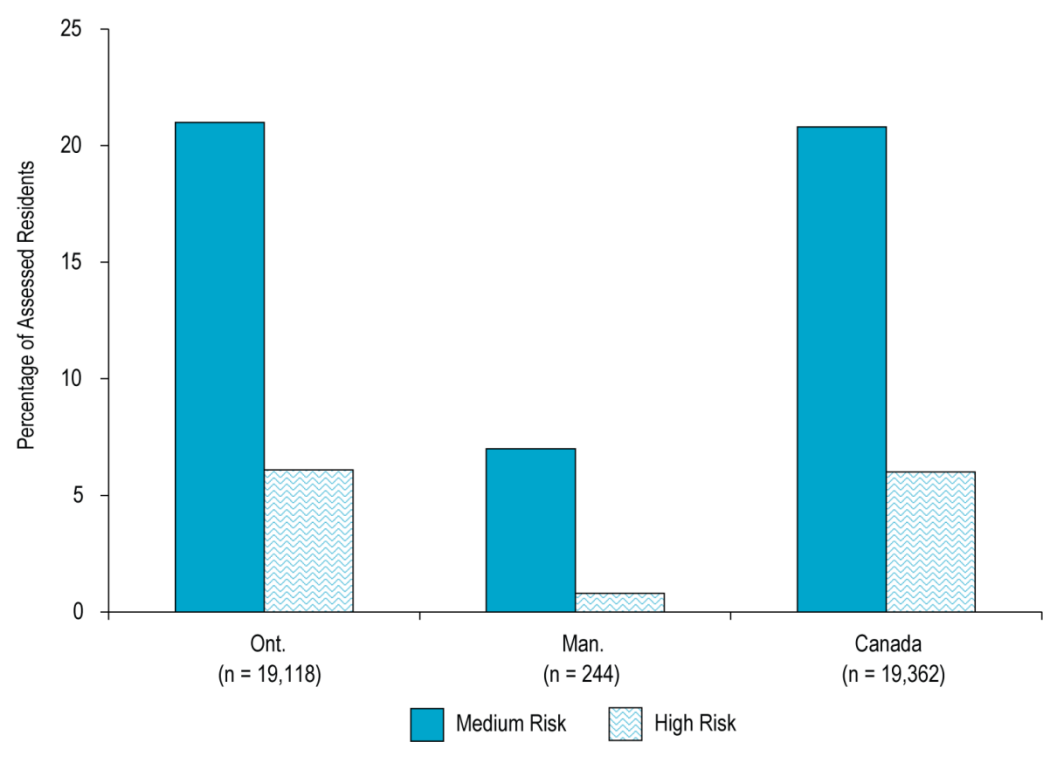
Accreditation Canada, CIHI, and CPSI provide data to support a better understanding of the incidence of falls in Canada and to generate supporting resources to reduce these rates of falls. Compliance with the Accreditation Canada *Falls Prevention Strategy ROP* and the *Home Safety Risk Assessment ROP* is increasing, and health care organizations are achieving quality improvement using new resources, such as those from *Safer Healthcare Now!*. Together with clients and families, national and provincial/territorial partners, Accreditation Canada, CIHI, and CPSI will continue to collaborate on innovative research and develop, implement, and share falls information and effective falls prevention strategies to reduce harm from falls. Specific initiatives include:

- Enhancements to the Accreditation Canada program focused on client and family-centred care to be evaluated during on-site surveys beginning in 2016. As Canadian health organizations partner with clients and families, these new program requirements will support the spread of practices and principles of client and family-centred care across the continuum of care.
- Building on patient safety capabilities through CPSI's National Integrated Patient Safety Strategy, one of four focus areas of the strategy is to improve safety in the home. This same setting is where over half of all falls leading to hospitalization in Canada occur.
- Collaboration between partners across Canada to deliver *Safer Healthcare Now!* national calls and webinars focused on sharing expert insights, effective practices, and inspiring stories to enable improvement in falls prevention.
- Fostering knowledge translation and dissemination of innovations and research such as the Strategies and Actions for Independent Living (SAIL) evaluation study and the Technology for Injury Prevention in Seniors (TIPS) Program.

Accreditation Canada, CIHI, and CPSI will continue to provide leadership and share information on health system performance and best practices. Working together with health care providers, clients, families, leaders, and governments across Canada, we can improve the quality of life of Canadians by ensuring that the greatest impact related to falls is our success in preventing them.

Appendix

Figure A1: Percentage of Hospital-Based Continuing Care Residents at Risk of Falls



Notes

Manitoba data includes only facilities in the Winnipeg Regional Health Authority. Hospitals with continuing care beds are commonly known as extended, auxiliary, chronic or complex care beds.

Source

Continuing Care Reporting System, 2013–2014, Canadian Institute for Health Information.

Table A1: Rate of Use of Psychotropic Drugs in Long-Term Care Facilities, by Age Group of Seniors on Public Drug Programs, 2012

Age Group	Benzodiazepines		Antidepressants		Antipsychotics	
	Long-Term Care Facility	Community	Long-Term Care Facility	Community	Long-Term Care Facility	Community
65–74	35.3%	13.2%	64.3%	17.6%	49.7%	3.5%
75–84	31.6%	16.6%	62.7%	18.9%	45.2%	4.6%
85+	29.5%	19.3%	54.6%	23.1%	36.5%	7.7%
Total	**30.8%**	**15.1%**	**58.2%**	**18.8%**	**40.7%**	**4.4%**

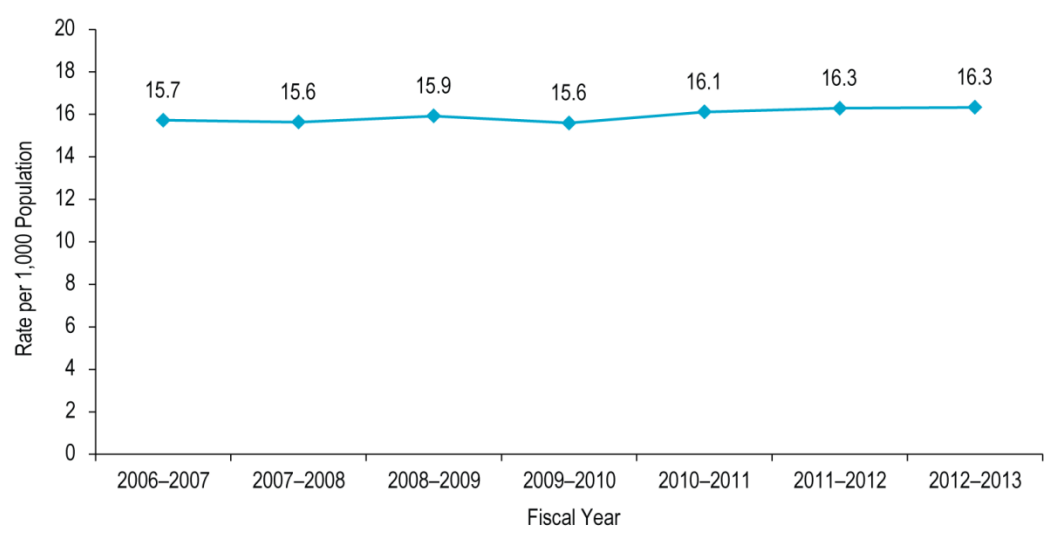
Note

Five jurisdictions submitting claims that can be identified as long-term care facility data to the NPDUIS Database as of March 2013: British Columbia, Manitoba, Ontario, New Brunswick and Prince Edward Island.

Source

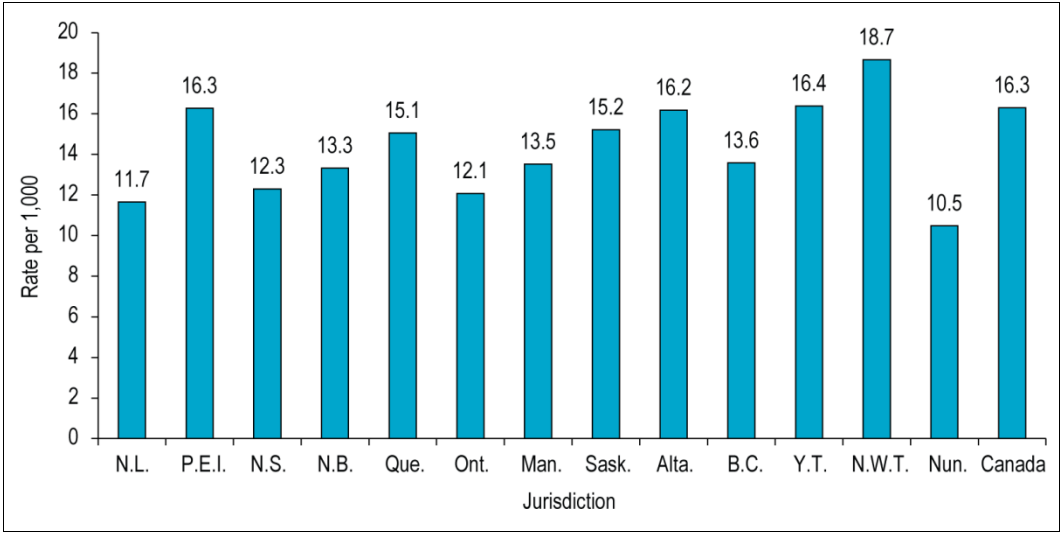
National Prescription Drug Utilization Information System Database, Canadian Institute for Health Information.

Figure A2: Fall-Related Hospitalization Rate (per 1,000 Population) in Canada, 2006–2007 to 2012–2013



Source
Hospital Morbidity Database, 2006–2007 to 2012–2013, Canadian Institute for Health Information.

Figure A3: Fall-Related Hospitalization Rates in Canadian Provinces and Territories, 2012–2013



Source
Hospital Morbidity Database, 2006–2007 to 2012–2013, Canadian Institute for Health Information.

Table A2: Volume and Median Length of Stay, All FRH and FRH With/Without ALC, 2006–2007 to 2012–2013

	All FRH		FRH Without ALC		FRH With ALC			
						Median LOS		
	Volume	Median LOS	Volume	Median LOS	Volume	Total	Acute	ALC
2006–2007	50,435	11	38,769	8	11,666	29	18	11
2007–2008	51,184	11	38,858	8	12,326	29	17	12
2008–2009	53,035	11	39,370	8	13,665	29	17	12
2009–2010	53,657	11	39,057	8	14,600	27	17	10
2010–2011	56,945	10	41,182	7	15,763	27	17	10
2011–2012	58,823	10	42,481	7	16,342	26	17	9
2012–2013	61,609	10	45,353	7	16,256	24	15	9

Source
Hospital Morbidity Database, 2006–2007 to 2012–2013, Canadian Institute for Health Information.

Table A3: Hip Fractures (In- and Out-of-Hospital) and FRH in Canada, 2009–2010 to 2012–2013

	In-Hospital Hip Fracture		Out-of-Hospital Hip Fracture		Fall-Related Hospitalization		
	Total	Percent With FRH	Total	Percent With FRH	Total	Percent With In-Hospital Hip Fracture	Percent With Out-of-Hospital Hip Fracture
2009	874	94.4	25,671	95.8	73,279	1.1	33.6
2010	814	94.8	26,204	95.8	77,956	1.0	32.2
2011	1,084	90.5	26,447	95.9	81,261	1.2	31.2
2012	1,070	91.0	27,143	96.0	84,828	1.1	30.7

Source
Hospital Morbidity Database, 2009–2010 to 2012–2013, Canadian Institute for Health Information.

Table A4: Accreditation Canada *Falls Prevention Strategy ROP*, National Compliance, by Standards Set, 2011–2013

Standards Set	Compliance (%)		
	2011	2012	2013
Aboriginal Community Health and Wellness Services	40	47	56
Acquired Brain Injury Services	80	80	100
Ambulatory Care Services	76	75	64
Ambulatory Systemic Cancer Therapy Services	N/A*	63	54
Cancer Care and Oncology Services	71	77	74
Diagnostic Imaging Services	74	73	79
Home Care Services	77	72	81
Home Support Services	76	83	86
Hospice Palliative and End-of-Life Services	64	81	91
Long-Term Care Services	82	88	91
Medical Imaging Centres	N/A*	N/A*	48
Medicine Services	72	81	83
Mental Health Services	78	83	85
Obstetrics Services	67	85	77
Rehabilitation Services	76	91	84
Surgical Care Services	68	83	84
Overall	**75**	**80**	**80**

Note

* Not applicable as the ROP was not evaluated.

Table A5: Accreditation Canada *Falls Prevention Strategy ROP*, National Compliance, by Tests for Compliance and Standards Set, 2011–2013

	Compliance (%)														
	Implementation			Populations			Specific Needs			Measurement			Evaluation		
Standards Set	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Aboriginal Community Health and Wellness Services	60	65	67	60	65	78	60	65	78	67	53	56	29	47	56
Acquired Brain Injury Services	80	90	100	80	90	100	80	90	100	75	90	100	83	80	100
Ambulatory Care Services	79	77	70	82	79	72	82	79	72	79	75	64	76	75	64
Ambulatory Systemic Cancer Therapy Services	N/A	63	57	N/A	75	64	N/A	75	57	N/A	63	54	N/A	63	54
Cancer Care and Oncology Services	75	81	79	79	87	84	75	81	84	71	77	74	71	77	74
Diagnostic Imaging Services	79	78	88	81	77	87	79	77	85	74	74	80	74	73	79
Home Care Services	85	89	92	87	87	93	87	87	95	85	76	85	76	76	83
Home Support Services	88	96	95	82	96	95	82	96	95	100	83	90	71	83	86
Hospice Palliative and End-of-Life Services	80	94	91	88	100	91	88	94	91	67	81	91	69	81	91
Long-Term Care Services	91	96	98	93	97	98	92	96	98	85	91	94	84	88	92
Medical Imaging Centres	N/A	N/A	78	N/A	N/A	78	N/A	N/A	74	N/A	N/A	48	N/A	N/A	48
Medicine Services	87	91	92	91	91	94	90	89	91	81	81	88	75	81	84
Mental Health Services	83	87	96	87	87	96	86	87	96	79	87	88	81	83	88
Obstetrics Services	83	90	85	94	90	87	89	90	85	72	87	78	67	85	78
Rehabilitation Services	86	94	93	88	94	93	88	97	93	86	91	87	78	91	84
Surgical Care Services	86	88	91	91	92	93	89	92	93	75	83	87	73	83	84
Overall	**85**	**88**	**89**	**88**	**88**	**90**	**87**	**88**	**89**	**79**	**82**	**82**	**77**	**81**	**81**

Tests for Compliance

Implementation: The team implements a falls prevention strategy.

Populations: The strategy identifies the populations at risk for falls.

Specific Needs: The strategy addresses the specific needs of the populations at risk for falls.

Measurement: The team establishes measures to evaluate the falls prevention strategy on an ongoing basis.

Evaluation: The team uses the evaluation information to make improvements to its falls prevention strategy.

Table A6: Accreditation Canada *Home Safety Risk Assessment ROP* Tests for Compliance, National Compliance, Home Care Services Standards Set, 2011–2013

Test for Compliance	Compliance (%)		
	2011	2012	2013
The team conducts a safety risk assessment for each client at the beginning of service.	96	89	93
The team educates clients and families on home safety issues identified in the risk assessment.	97	91	93
The safety risk assessment includes a review of: internal and external physical environments; chemical, biological, fire and falls hazards; medical conditions requiring special precautions; client risk factors; and emergency preparedness.	95	96	95
The team regularly updates the safety risk assessment and uses the information to make improvements to the client's health services.	94	91	92
The team uses information from the safety risk assessment when planning and delivering client services, and shares this information with partners who may be involved in planning of care.	97	91	93

Note

Full compliance was shown in 2011, 2012 and 2013 for all tests for compliance for the *Case Management Services Standards* and for the *Home Support Services Standards*.

Table A7: *Safer Healthcare Now!* Falls Intervention Measures

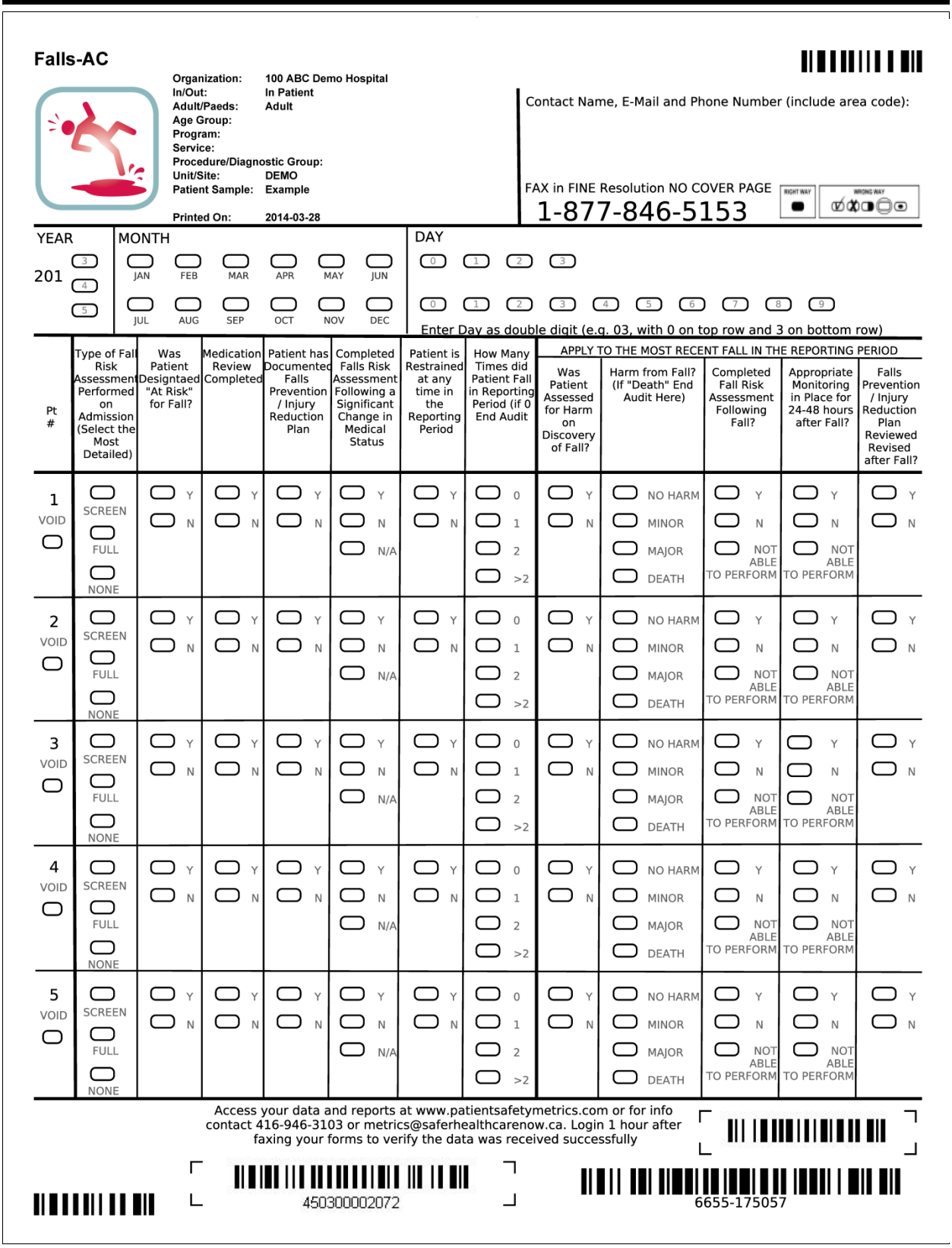
Falls Acute and Long-Term Care
Falls—1—Falls Rate per 1000 Patient/Resident Days
Falls—2—Percentage of Falls Causing Injury
Falls—3—Percentage of Patients/Residents With Completed Fall Risk Assessment on Admission
Falls—4—Percentage of Patients/Residents With Completed Fall Risk Assessment Following a Fall or Change in Medical Status
Falls—5—Percentage of "At Risk" Patients/Residents With a Documented Falls Protection or Injury Reduction Plan
Falls—6—Percentage of Patients/Residents With Restraints
Falls—7—Percentage of Residents Physically Restrained Daily on the Most Recent RAI Assessment
Falls—8—Fall Related INJURY Rate per 1000 Patient/Resident Days
Falls—9*—Percent of Patients/Residents Designated "At Risk"
Falls—10*—Percent of Patients/Residents Designated "At Risk" and Risk Status Communicated
Falls—11*—Percent of Patients/Residents With a Medication Review Completed on Admission
Falls—12*—Patients/Residents With Completed Fall Risk Assessment Following a Change in Medical Status (%)
Falls—13*—Percentage of Patients/Residents With 2 or More Falls
Falls—14*—Percentage of Patients/Residents Assessed for Harm on Discovery of Fall
Falls—15*—Percentage of Patients/Residents With Completed Fall Risk Assessment Following a Fall
Falls—16*—Percentage of "Fallers" With Appropriate Monitoring in Place for 24–48 Hours After a Fall
Falls—17*—Fallers w/ Review or Revision of Falls Prevention/Injury Reduction Plan After Fall
Falls—18*—Fall Prevention Score
Falls—19*—Fall Management Score After Fall

Note

* New Falls measures added to Patient Safety Metrics in June 2014.

Falls Home Care
Falls HC-1—Fall Rate per 1000 Home Care Clients
Falls HC-2—Percentage of Falls Causing Injury
Falls HC-3—Percentage of Clients With a Completed Falls Risk Assessment on Admission
Falls HC-4—Percentage of Clients With a Falls Risk Reassessment Completed Following a Fall or Significant Change in Medical Status
Falls HC-5—Percentage of "At Risk" Clients With Documented Fall Prevention/Injury Reduction Plan
Falls HC-6—The Percentage of Home Care Clients With Restraints

Figure A4: *Safer Healthcare Now!* Falls Prevention Data Collection Form



Falls-AC

Organization: 100 ABC Demo Hospital
In/Out: In Patient
Adult/Paeds: Adult
Age Group:
Program:
Service:
Procedure/Diagnostic Group:
Unit/Site: DEMO
Patient Sample: Example
Printed On: 2014-03-28

Contact Name, E-Mail and Phone Number (include area code):

FAX in FINE Resolution NO COVER PAGE
1-877-846-5153

YEAR: 201 (3 / 4 / 5)
MONTH: JAN FEB MAR APR MAY JUN / JUL AUG SEP OCT NOV DEC
DAY: 0 1 2 3 / 0 1 2 3 4 5 6 7 8 9
Enter Day as double digit (e.g. 03, with 0 on top row and 3 on bottom row)

Pt #	Type of Fall Risk Assessment Performed on Admission (Select the Most Detailed)	Was Patient Designtaed "At Risk" for Fall?	Medication Review Completed	Patient has Documented Falls Prevention / Injury Reduction Plan	Completed Falls Risk Assessment Following a Significant Change in Medical Status	Patient is Restrained at any time in the Reporting Period	How Many Times did Patient Fall in Reporting Period (if 0 End Audit	APPLY TO THE MOST RECENT FALL IN THE REPORTING PERIOD: Was Patient Assessed for Harm on Discovery of Fall?	Harm from Fall? (If "Death" End Audit Here)	Completed Fall Risk Assessment Following Fall?	Appropriate Monitoring in Place for 24-48 hours after Fall?	Falls Prevention / Injury Reduction Plan Reviewed Revised after Fall?
1 VOID	SCREEN / FULL / NONE	Y / N	Y / N	Y / N	Y / N / N/A	Y / N	0 / 1 / 2 / >2	Y / N	NO HARM / MINOR / MAJOR / DEATH	Y / N / NOT ABLE TO PERFORM	Y / N / NOT ABLE TO PERFORM	Y / N
2 VOID	SCREEN / FULL / NONE	Y / N	Y / N	Y / N	Y / N / N/A	Y / N	0 / 1 / 2 / >2	Y / N	NO HARM / MINOR / MAJOR / DEATH	Y / N / NOT ABLE TO PERFORM	Y / N / NOT ABLE TO PERFORM	Y / N
3 VOID	SCREEN / FULL / NONE	Y / N	Y / N	Y / N	Y / N / N/A	Y / N	0 / 1 / 2 / >2	Y / N	NO HARM / MINOR / MAJOR / DEATH	Y / N / NOT ABLE TO PERFORM	Y / N / NOT ABLE TO PERFORM	Y / N
4 VOID	SCREEN / FULL / NONE	Y / N	Y / N	Y / N	Y / N / N/A	Y / N	0 / 1 / 2 / >2	Y / N	NO HARM / MINOR / MAJOR / DEATH	Y / N / NOT ABLE TO PERFORM	Y / N / NOT ABLE TO PERFORM	Y / N
5 VOID	SCREEN / FULL / NONE	Y / N	Y / N	Y / N	Y / N / N/A	Y / N	0 / 1 / 2 / >2	Y / N	NO HARM / MINOR / MAJOR / DEATH	Y / N / NOT ABLE TO PERFORM	Y / N / NOT ABLE TO PERFORM	Y / N

Access your data and reports at www.patientsafetymetrics.com or for info contact 416-946-3103 or metrics@saferhealthcarenow.ca. Login 1 hour after faxing your forms to verify the data was received successfully

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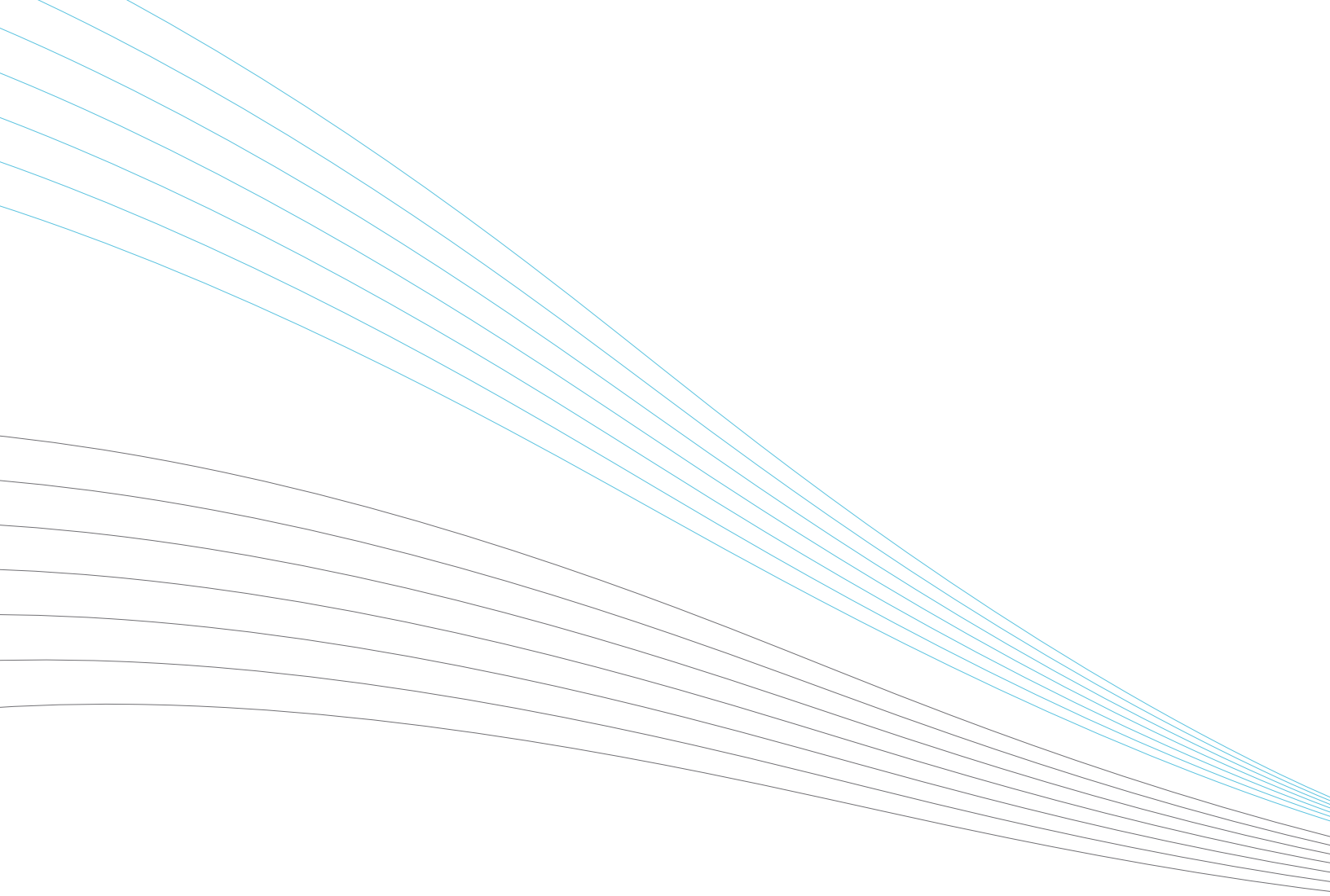

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