# MEDICATION SAFETY SELF-ASSESSMENT FOR LONG-TERM CARE

# ONTARIO SUMMARY

## April 2009 – September 2012

Institute for Safe Medication Practices Canada®
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**The Institute for Safe Medication Practices Canada (ISMP Canada)** is an independent national non-profit agency committed to the advancement of medication safety in all health care settings. ISMP Canada works collaboratively with the health care community, regulatory agencies and policy makers, provincial, national, and international patient safety organizations, the pharmaceutical industry, and the public to promote safe medication practices.

ISMP Canada's mandate includes collecting, reviewing, and analyzing medication incident and near-miss reports, identifying contributing factors and causes, and making recommendations for the prevention of harmful medication incidents.

## Acknowledgements

ISMP Canada appreciates the support of all Ontario homes that participated in the Medication Safety Self-Assessment for Long-Term Care (MSSA for LTC) program.

The assistance and financial support of the Ministry of Health and Long-Term Care is acknowledged and appreciated.

**October 2012**

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*A Key Partner in the Canadian Medication Incident Reporting and Prevention System*
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## EXECUTIVE SUMMARY


With support from the Ontario Ministry of Health and Long-Term Care (MOHLTC), the Medication Safety Self-Assessment for Long-Term Care (MSSA LTC) program was developed in 2007 to provide a means to self-assess medication system safety in LTC homes. Launched as a province-wide initiative in 2008, with a results report submitted to MOHLTC in April 2009, the MSSA LTC acted as a baseline as well as an evaluation of the existing status of medication use systems in LTC. In June 2012, an analysis of the self-assessment data submitted since April 2009 was completed. This report highlights the findings of the latter analysis of each of the 10 Key Elements representing the many processes in a medication use system. (Key Elements are comprised of a number of self-assessment items grouped under a medication safety theme.) The strengths, vulnerabilities and changes since the April 2009 baseline are specifically noted.

For the June analysis, data was used from the 257 homes that had submitted results (as of the end of September 2012, 419 homes have participated). Homes benefit from participating by: increasing staff knowledge of elements for a safe medication use system; fulfilling Ontario's ***Long-Term Care Homes Act Regulation #141***, which requires an annual evaluation of the medication management system; fulfilling ***Accreditation Canada's Medication Management Standard 27.2***, "The interdisciplinary committee completes an annual comprehensive evaluation of its medication management system", where "…*ISMP Canada's Medication Safety Self-Assessment"* is referred to in the Guidelines; and**,** when completed regularly, *c*ontributes to a **quality improvement program** by comparing facility documented results from each participation and identifying the changes in results over time. As 739 assessments have been completed, it is evident that a number of homes have been using this program on a regular basis to evaluate their medication system.

The total average aggregate self-assessment score for Ontario LTC facilities increased by 6% since 2009. The highest average aggregate score was obtained for Key Element 5 (Drug Standardization, Storage & Distribution), i.e., 94% of the maximum achievable score; up from 90% in 2009. The lowest score was for Key Element 1 (Resident Information), at 72%, compared to a score of 67% in 2009. These two Key Elements were similarly the highest and lowest in both 2012 and 2009.

The largest improvements were in Key Elements 8 (Staff Competence and Education) and 10 (Quality Processes and Risk Management), with increases of 10% since 2009.

The individual self-assessment items with a perfect 100% score were #28 (pharmacy computer system maintains past and current resident medication profiles), #61 (systems used to physically deliver drugs from pharmacy to care units are directly controlled by the pharmacy using authorized personnel and/or automated delivery and planned in consultation with the Home's nursing staff), and #71 (limited after hours or emergency stock has been established for when medication is not readily available from the pharmacy). Items with the lowest scores were, as expected, associated with new technology, such as bar coding. The item with the greatest positive change in score since 2009 was #33 (a list of prohibited, dangerous abbreviations and unacceptable methods of expressing doses; using trailing zeros for whole number doses of lack of using a leading zero for doses less than one; is established and used for all communication of drug information or orders), which increased by 30%, reflecting the many homes that have made a change in this area. There were a number of items with a greater than 10% increase in score since the 2009 baseline (listed in Table 8 in the report). These increased scores reflect the efforts of many homes to improve their medication system. Items where the aggregate of Ontario LTC Homes scored greater than 90% are identified in Table 7 and represent system strengths; potential improvement opportunities are listed in Table 9.

# MEDICATION SAFETY SELF-ASSESSMENT FOR LONG-TERM CARE

# ONTARIO SUMMARY 2009 - 2012

## BACKGROUND

The 2007 Annual Report of the Office of the Auditor General of Ontario highlighted the matter of medication management in long-term care homes. In response, the Ontario Ministry of Health and Long-Term Care (MOHLTC) developed an action plan to assist in addressing the issues raised in the Report. One of the initiatives was the province-wide implementation of the Medication Safety Self-Assessment® for Long-Term Care (MSSA LTC) announced in July 2008 by the MOHLTC Task Force on Medication Management.

A report outlining the province-wide aggregate results of the MSSA LTC was submitted by ISMP Canada to the MOHLTC in February 2009. Based on the aggregate findings, the report noted a number of medication safety improvement opportunities as well as strengths in this sector. ISMP Canada received unsolicited positive feedback from many homes that described initiatives taken on by homes as a result of completing the self-assessment.

The MSSA LTC program allows each home to have access to reports and graphs generated from the data it enters into the ISMP Canada secure website. The reports assist homes to identify and celebrate their strengths as well as opportunities to enhance the safety of their medication system.

In 2007, the Long-Term Care Homes Act was implemented. Section 116 of the Regulations requires that an interdisciplinary team meet annually to evaluate the effectiveness of the medication management system in the long-term care home and to recommend changes necessary to improve the system. The MSSA LTC functions as a comprehensive medication safety self-assessment program and is therefore useful in assisting homes to comply with the new regulations. Regular use of the MSSA LTC provides additional benefits to the homes

- By increasing awareness of (1) the components of a safe medication system and (2) system-based improvement strategies, the self-assessment program supports staff in their efforts to continue to provide safe medication therapy to the home's residents and reduce the risk of medication-related harm.
- The MSSA LTC is a process recognized by Accreditation Canada as a component of a continuous quality improvement system.

The Ministry of Health and Long-Term Care continues to support the availability of the Medication Safety Self-Assessment for Long-Term Care. Data submitted by homes to the ISMP Canada secure website for the period April 1, 2009 to June 19, 2012 were analyzed and are summarized in this report which also highlights changes in trends from the 2009 Report[1].

[1] Report on the Results of the Medication Safety Self-Assessment® for Long Term Care by Ontario's Long-Term Care Homes February 2009

### ISMP Canada Support to Homes

Each time a home contacted ISMP Canada to initiate a new self-assessment or to repeat the MSSA for LTC, an information package was sent that included:

- The document, *MSSA for LTC* as a PDF file to be printed and distributed to interdisciplinary team members who would conduct the *MSSA for LTC*
- The document, *MSSA for LTC Process*
- The document, *Results Interpretation LTC*
- The facility-specific password to access the ISMP Canada secure web site

Ongoing support as needed by the facility to assist with implementation, analysis, and sharing of results was available from ISMP Canada staff either by telephone or through email contact at mssa@ismp-canada.org. Note that the ISMP Canada site remains open for all homes in Ontario to continue entering self-assessment data (although now it will be for Version II – a 2012 update) and reviewing their historical results.

### MSSA Process

Homes were directed to form an interdisciplinary team with members representing all the disciplines closely involved in the medication process (e.g., physician, nursing staff administering medications, pharmacist contracted to provide service, administrative level staff, and possibly a risk manager). The team was to review the MSSA and reach a consensus on the level of implementation of each self-assessment item in the home and then rank each self-assessment item using the ranking system outlined in *Table 1*. When this process was completed, the home's Key Contact person, or their designate, entered the home's data into the program on the ISMP Canada secure website. The home could then access tabular and graphic versions of their results compared to (1) maximum attainable scores, (2) their own previous scores, and (3) provincial and national aggregate averages.

### Project Data Analysis

Each self-assessment item carries a maximum weighted score, which is based on an assessment of the impact of the item on resident safety and on the ability of the activity to promote medication safety. Items do not all have the same weighting, ranging from 0 – 16, and can be "all or none" or graduated according to the level of implementation, i.e.,the home's rankings of A to E.

Homes received a score for each self-assessment item based on their team's ranking of the item. Aggregate scores for the province and for each home were calculated by the program for each item, each core distinguishing characteristic and each key element, and reported as the percent of the maximum achievable weighted score.

***Table 1: MSSA for LTC Scoring for Self-Assessment Items***

**Scoring for Individual Items:**

A = This item is applicable, but there has been **no activity to implement**

B = This item has been **formally discussed for possible implementation** in the Home/ facility, but is **not implemented at this time**

C = This item has been **partially implemented in some areas** of the Home/facility (e.g., by location, resident population, prescription type, drugs or staff)

D = This item is **fully implemented in some areas** of the Home/facility (e.g., by location, resident population, prescription type, drugs or staff)

E = This item is **fully implemented throughout** the Home/facility (i.e., for all residents, prescriptions, drugs or staff) **or** this item **does not apply** to the Home/facility because there is **no resident need**

# RESULTS

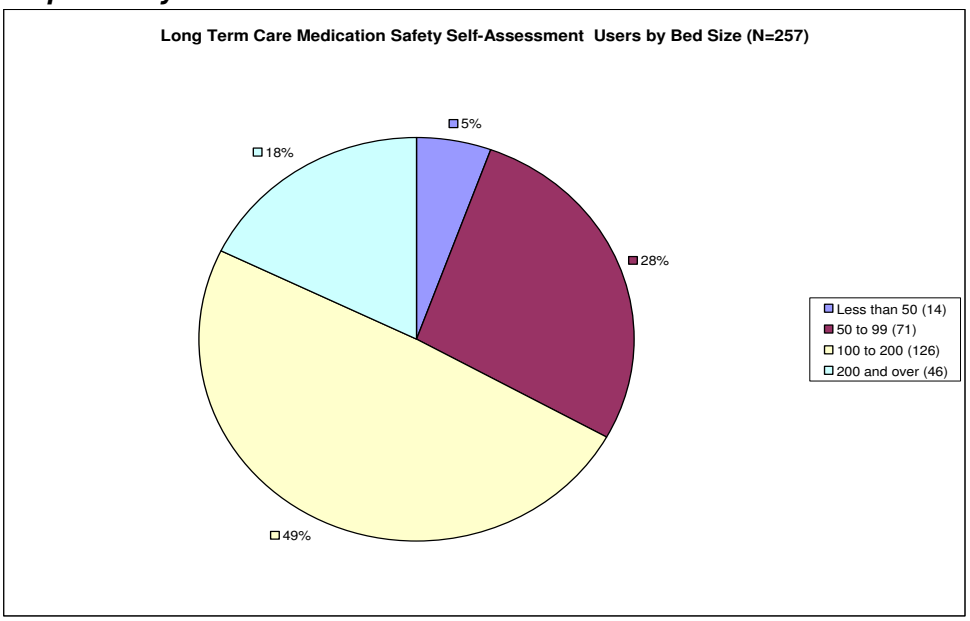
## Demographics of Participants

For this report, 374 assessments were completed by 257 homes in the period from April 1, 2009, to June 19, 2012. As of October 31, 2012, 711 MSSA assessments have been completed in Ontario by 415 LTC homes showing an increasing utilization trend. Many homes have completed the MSSA more than once.

### *(i) By Number of Beds in Home*

It can be seen in *Figure 1* that homes of varying sizes have participated in the self-assessment.

***Figure 1: Response by Home Size***




### *(ii) By LHIN*

Ontario is comprised of fourteen (14) Local Health Integration Networks (LHINs). All LHINs were represented by homes submitting data during the time period under review (see *Table 2*).

***Table 2: Homes Submitting Data by LHIN***

| *LHIN (LHIN Number)* | *No. of Participating Homes* |
|---|---|
| Erie St. Clair (#1) | 13 |
| South West (#2) | 36 |
| Waterloo Wellington (#3) | 14 |
| Hamilton Niagara Haldimand Brant (#4) | 31 |
| Central West (#5) | 12 |
| Mississauga Halton (#6) | 12 |
| Toronto (#7) | 14 |
| Central (#8) | 21 |
| Central East (#9) | 26 |
| South East (#10) | 10 |
| Champlain (#11) | 15 |
| North Simcoe Muskoka (#12) | 18 |
| North East (#13) | 18 |
| North West (#14) | 4 |
| Other | 13 |
| Total Submissions | 257 |

## Overall Aggregate Results for Ontario

### *(i) Aggregate Scores by Province*

The complete database of Canadian users for this time period (2009 to 20012) included participants from British Columbia (1) average score 73%, Alberta (151) average score 78%, Ontario (257) average score 83% and Manitoba (11) average score 82%. The average score for Canada across all four represented provinces was 81% of the maximum achievable weighted score.

### *(ii) Aggregate Scores by LHIN*

The total aggregate scores, as percentages of the maximum weighted scores, ranged from 80% to 85%. The number of homes reporting from each LHIN ranged from 4 to 32.

***Table 3: Average Aggregate Scores by LHIN***

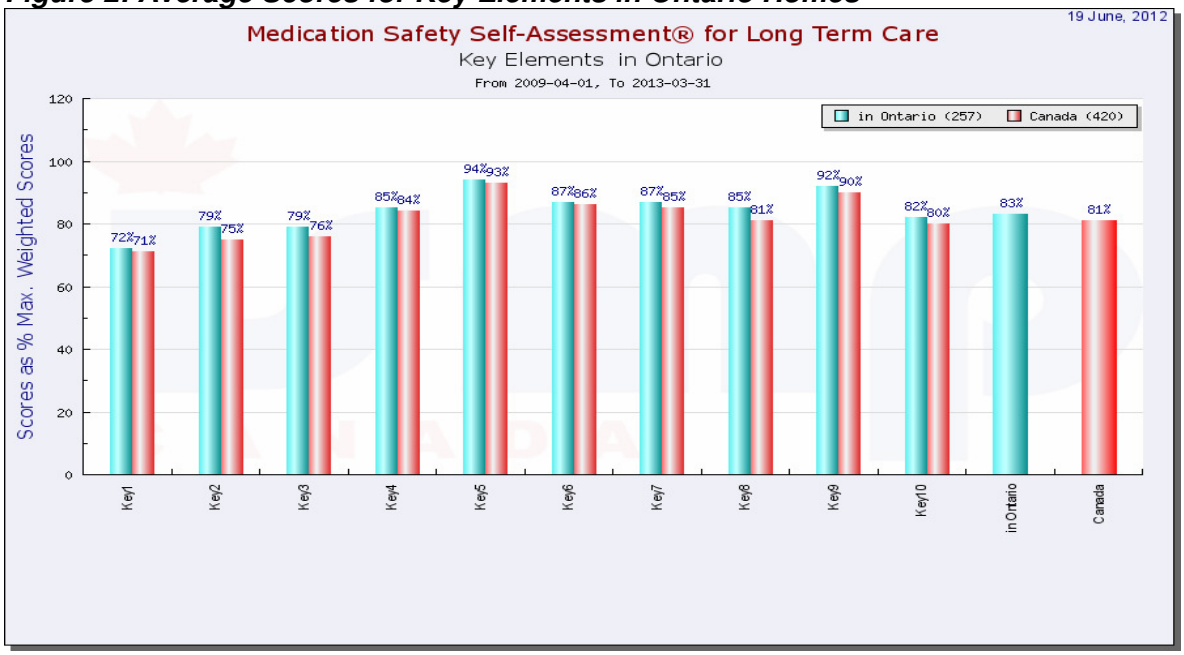
| *LHIN* | *No. of Sites Included In Aggregate* | *Average Aggregate Score* |
|---|---|---|
| #1 Erie | 13 | 81% |
| #2 Southwest | 36 | 85% |
| *#3* Waterloo Wellington | 14 | 80% |
| #4 Hamilton Niagara Haldimand Brant | 31 | 85% |
| #5 Central West | 12 | 84% |
| #6 Mississauga Halton | 12 | 84% |
| #7 Toronto | 14 | 85% |
| #8 Central | 21 | 83% |
| #9 Central East | 26 | 85% |
| #10 South East | 10 | 82% |
| #11 Champlain | 15 | 81% |
| #12 North Simcoe Muskoka | 18 | 82% |
| #13 North East | 18 | 82% |
| #14 North West | 4 | 82% |
| Other | 13 | 79% |
| Ontario | 257 | 83% |
| Canada | 421 | 81% |

## Results by Key Elements

### *(i) By Key Elements vs. Canada*

*Figure 2* shows the aggregate average of the scores for Ontario homes versus the aggregated average for all participating homes in Canada. Again, the numbers are percentages of the maximum achievable weighted scores for each Key Element (Appendix I).

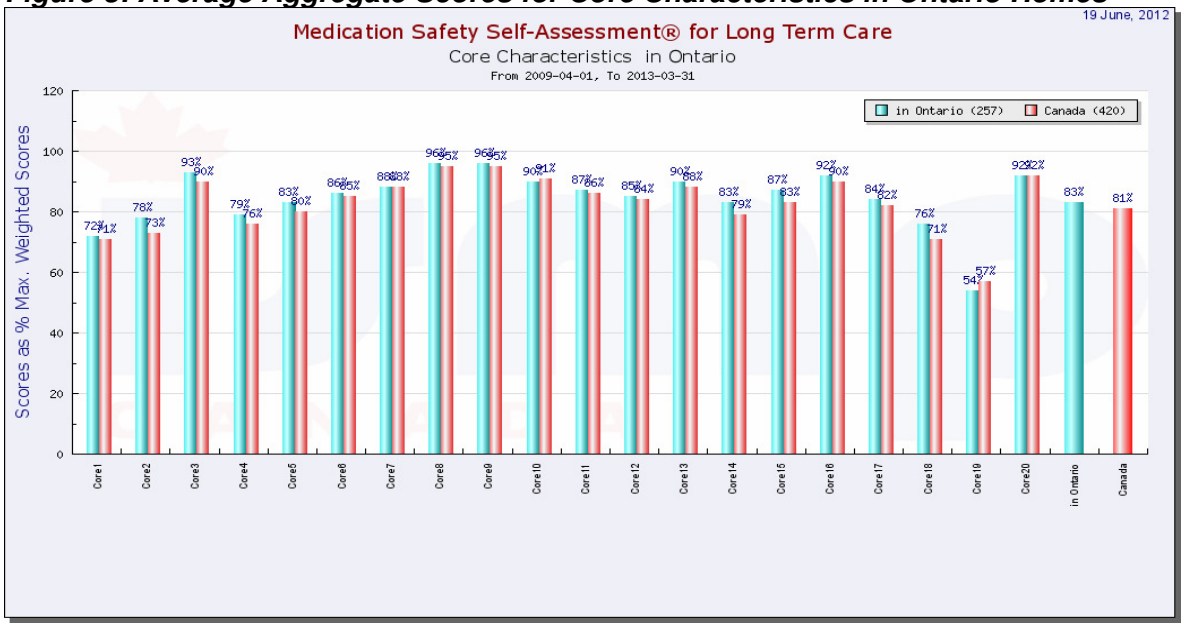
***Figure 2: Average Scores for Key Elements in Ontario Homes***




### *(ii) By Core Distinguishing Characteristics vs. Canada*

*Figure 3* shows the aggregated average of the scores for the Core Distinguishing Characteristics (Appendix I) as percentages of maximum achievable weighted scores for Ontario homes versus all Canadian participants.

***Figure 3: Average Aggregate Scores for Core Characteristics in Ontario Homes***



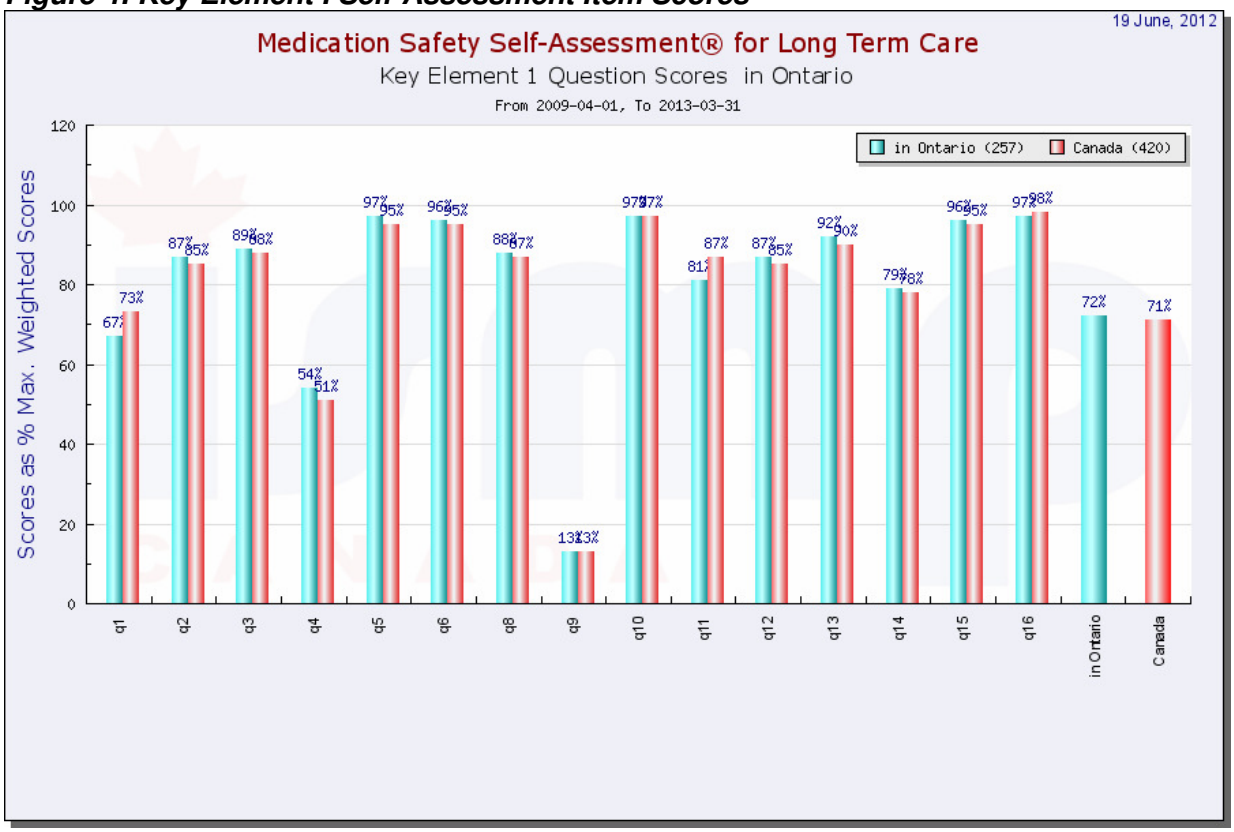
### *(iii) By Self-Assessment Items*

The following sections (a) to (j) show the graphed results of scores for the self-assessment items grouped by each Key Element.

### *(a) Key Element I - Resident Information*

The items in ***Key Element I - Resident Information*** *and Core Distinguishing Characteristic #1 (Essential resident information is obtained, readily available in useful form, and considered when prescribing, dispensing, and administering medications)* were reviewed.

***Figure 4: Key Element I Self-Assessment Item Scores***



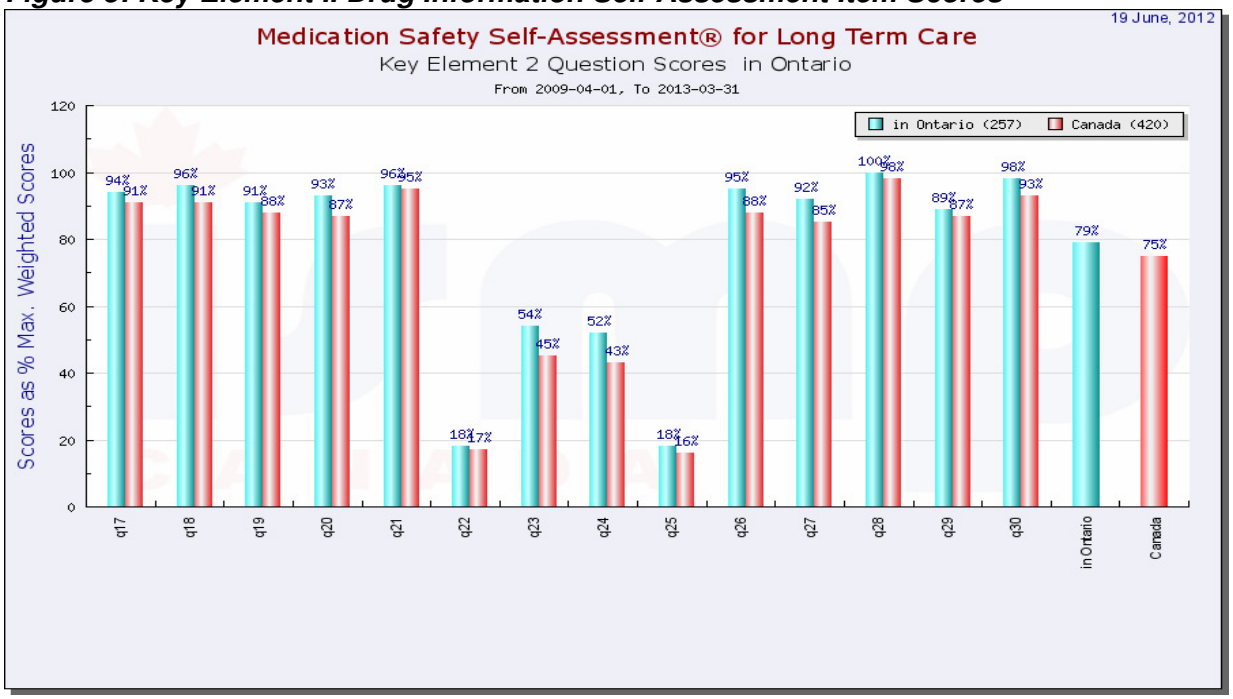

- **item #1** (*Physician, nurse and pharmacist access to lab value …*) – 65 sites (25%) ranked this item as applicable but with no significant activity to implement within their home.
- **item #2** (*… practices in place to ensure routine adjustment of doses … in residents with renal or severe liver impairment.*) - 155 sites (60%) ranked themselves as having fully implemented a process for dosage adjustment; 3 sites indicated no activity to implement.
- **item #4** (*… distinctive and visible prompts that list resident allergies are included … on order forms as a visible reminder to those prescribing drugs.*) – 31 sites (12%) indicated that there was no activity; 46 sites (18%) indicated full implementation. This Item emphasizes that prescribers need to be alerted to resident allergies at the time of prescribing.
- **item #9** (*bar coding … verify resident identity*) – As expected, the score indicates that there has been little progress in this area. Information systems designed for the LTC sector will make this more achievable in the future.
- **items #12, 13 and 14** (*Information is available to the clinical team …. A current drug history includes …. The drug history includes accurate information on medications ordered and administered at the transferring site or at home …*) – 169 sites (66%) ranked themselves as compliant (E) with item #12 but one site indicated no activity. 209 sites (81%) ranked

themselves E with item #13. 123 sites (48%) ranked themselves as E; 6 sites had no activity to implement item #14. Across Canada the B to D scores continue to reflect that, at the time of admission from home, readmission from acute care or transfer from another level of care, a client's current medication information may be difficult to obtain. Medication reconciliation initiatives incorporated into standard practice (Accreditation Canada Required Organizational Practice) may have influenced the increase in current scores. Additional system changes (current comprehensive medication information shared via technology such as a personal electronic health record) would help to make the transfer of medication information a more accurate and effective process.

### *(b) Key Element II - Drug Information*

The items in ***Key Element II - Drug Information*** *and Core Characteristic #2 (Essential drug information is readily available in useful form and considered when ordering, dispensing, and administering medications) and Core Characteristic #3 (Where applicable, a drug formulary system is followed to limit choice to essential drugs, minimize the number of drugs with which practitioners must be familiar, and provide adequate time for designing safe processes for the use of new drugs added to the formulary)* were reviewed.

***Figure 5: Key Element II Drug Information Self-Assessment Item Scores***



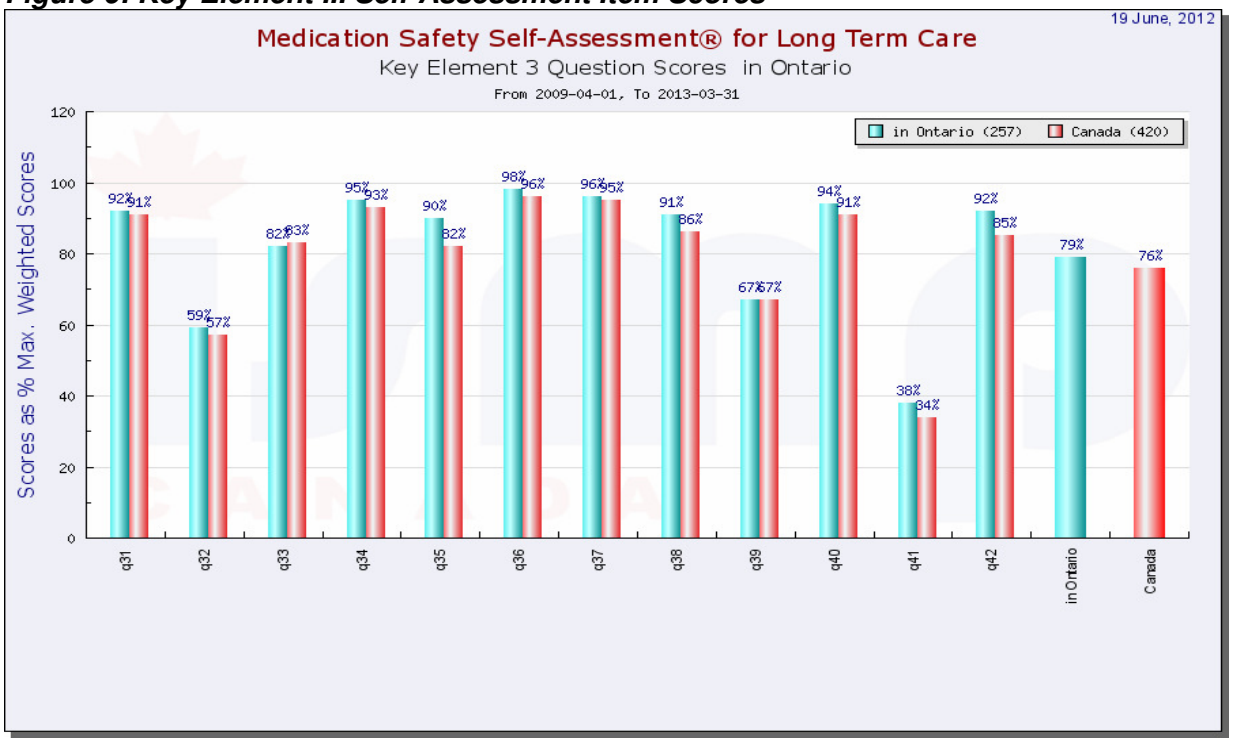

- **item #21** (*Pharmacists work with the care team on a regularly scheduled basis …*) – Ontario facilities scored at 95% of the maximum achievable score. 1 site ranked this item as A and 2 sites ranked it as B, indicating lack of service; 9 sites indicated partial implementation; the remainder ranked the item as E (95%), indicating full implementation. Ontario homes are to be commended on the involvement of the pharmacist on the care team. With the MOHLTC funding support for pharmacists to complete medication reviews quarterly with LTC home practitioners (RN, MD), the expectation would be a score of 100%.
- **items #22, 23, 24, 25** (*CPOE dose range checks … ; pharmacy system performs dose range checks …; pharmacy system performs maximum dose checks for high alert drugs… ; CPOE performs maximum dose checks …*) – Computerized practitioner order entry (CPOE) is technology that is not widely available in the long-term care sector. However technology has begun to penetrate; for item #22, 27 homes ranked themselves as fully implemented (E); for item #23, 83 homes indicated full implementation (E); for item #24, 76 sites ranked the item

as E; for item #25, 23 sites ranked E. These four items identify an opportunity for system enhancement using technological support.

### *(c) Key Element III - Communication of Drug Orders and Other Drug Information*

The items in ***Key Element III - Communication of Drug Orders and Other Drug Information*** *and the Core Characteristic #4 (Methods of communicating drug orders and other drug information are standardized and automated to minimize the risk for error)* were reviewed.

***Figure 6: Key Element III Self-Assessment Item Scores***

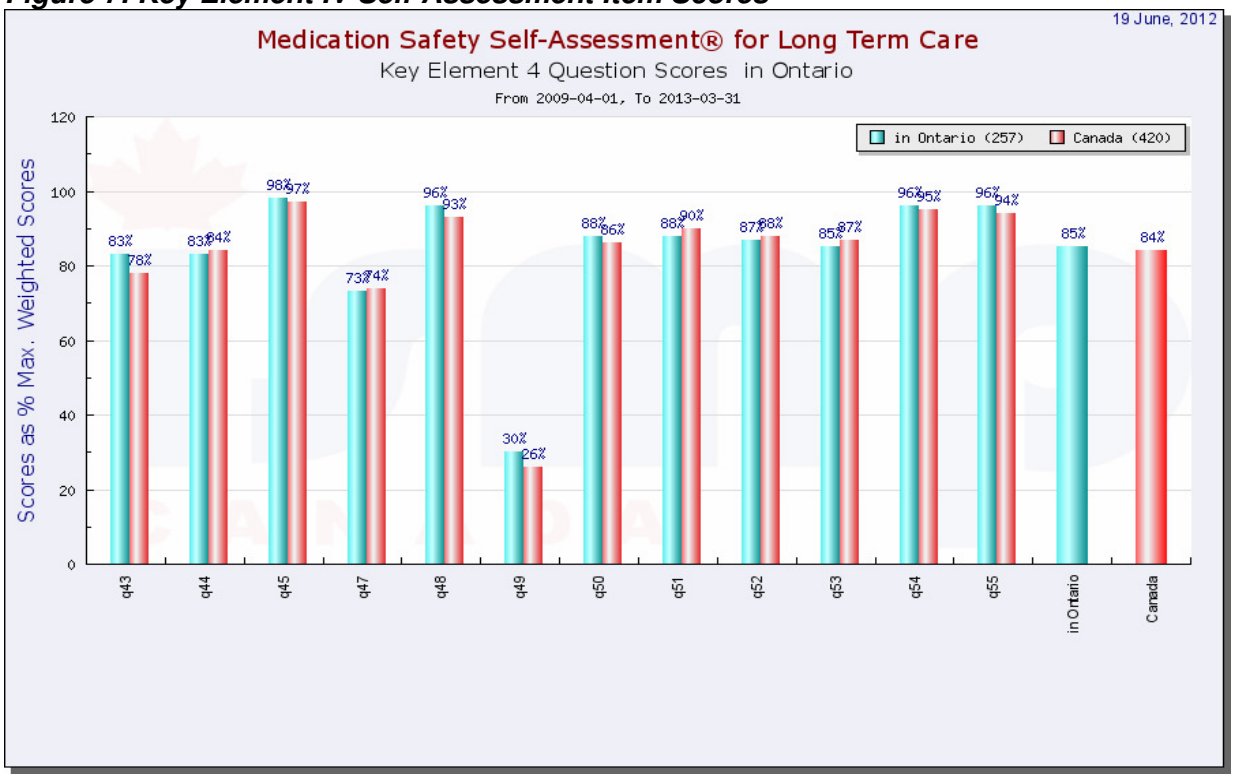



- **item #32** (*all drug orders … include clinical indication*) – 31 sites (12%) ranked themselves as fully compliant (E), indicating the feasibility of this item as a practice. Although it is not a common practice to include the clinical indication on drug orders, it is important information to all care providers to guide them in monitoring patient outcomes. Medication reconciliation initiatives support and require this essential information.
- **item #33** (*a list of prohibited, dangerous abbreviations and unacceptable methods of expressing doses*) – 147 sites (57%) ranked themselves as fully compliant (E), while 9 sites (3%) ranked this item an A, indicating no activity to implement. "Dangerous abbreviations" was added to the Required Organizational Practices (ROP) by Accreditation Canada for 2009. Approximately 43% of homes still need to work toward 100% compliance.
- **item #39** (*Computer-generated or electronic medication administration record (MAR) … guide medication administration* – 147 sites (57%) ranked themselves as compliant (E); 43 sites ranked this item an A and 46 sites ranked it B, effectively indicating no activity related to the use of computer or electronically generated MARs to guide medication administration for 35% of the sites.
- **item #41** (*automated medication-related systems are used …*) – 20 sites (8%) ranked themselves as having fully implemented automated systems (Computerized Prescriber Order Entry, computerized medication administration record, and bar coding).

### *(d) Key Element IV - Drug Labelling, Packaging and Nomenclature*

The items in ***Key Element IV - Drug Labelling, Packaging and Nomenclature*** *and Core Characteristic #5 (Strategies are undertaken to minimize the possibility of errors with drug products that have similar or confusing manufacturer labelling/packaging and/or drug names that look or sound alike.), Core Characteristic #6 (Clear and readable labels that identify medications are on all containers, and medications remain labelled up to the point of actual administration.)* were reviewed.

***Figure 7: Key Element IV Self-Assessment Item Scores***



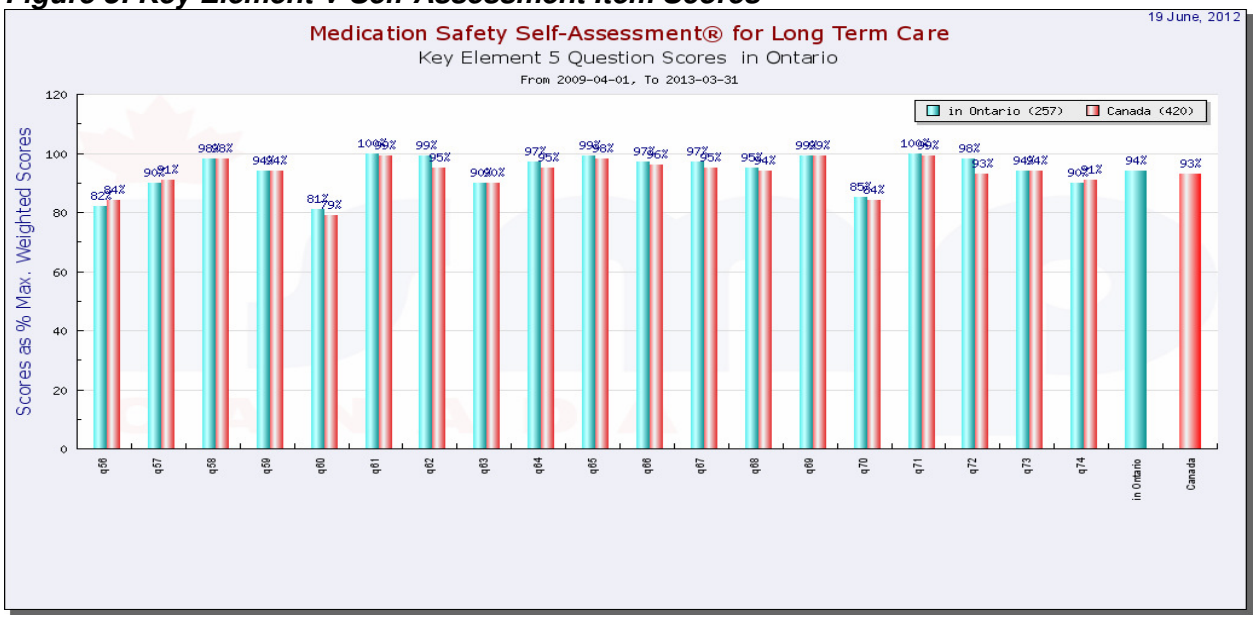

- **item #43** (*medication safety literature is reviewed …*) – 9 sites (3%) ranked themselves with either A or B, indicating no activity to implement this item. 156 sites (61%) ranked themselves as fully compliant (E). The sites are to be commended on a significant increase over 2009 (from average of 61% to 83%), possibly reflecting the distribution of safety bulletins and educational activities by ISMP Canada and partners.
- **item #47** (*All drugs taken to resident … are labelled …*) - The aggregate score was 73% of the maximum achievable. 129 sites (50%) reported themselves as fully compliant (E) with this item. 44 sites (17%) indicated no activity to implement.
- **item #49** (*Machine readable coding, i.e., bar coding, to verify the drug as part of the dispensing and administration processes*.) – Not unexpected, the aggregate score for this item is low. This technology, that includes bar coding within the dispensing processes and bar coding used to confirm drug administration to the resident, will take time to develop and implement in the LTC sector. This technology will enhance system safety in the future.

### *(e) Key Element V - Drug Standardization, Storage, and Distribution*

The items in ***Key Element V - Drug Standardization, Storage and Distribution*** *and Core Characteristic #7 (IV solutions, drug concentrations, doses, and administration times are standardized whenever possible), #8 (Drugs are delivered to care units in a safe and secure manner and available for administration within a time frame that meets essential resident needs), #9 (Medications stocked in the Home/ facility are limited and securely stored), and #10 (Hazardous chemicals are safely sequestered from residents and not accessible in drug preparation areas)* were reviewed.

For Key Element V all but 3 items scored over 90% of the maximum achievable score, indicating that the homes were generally satisfied with their pharmacy distribution system.

***Figure 8: Key Element V Self-Assessment Item Scores***

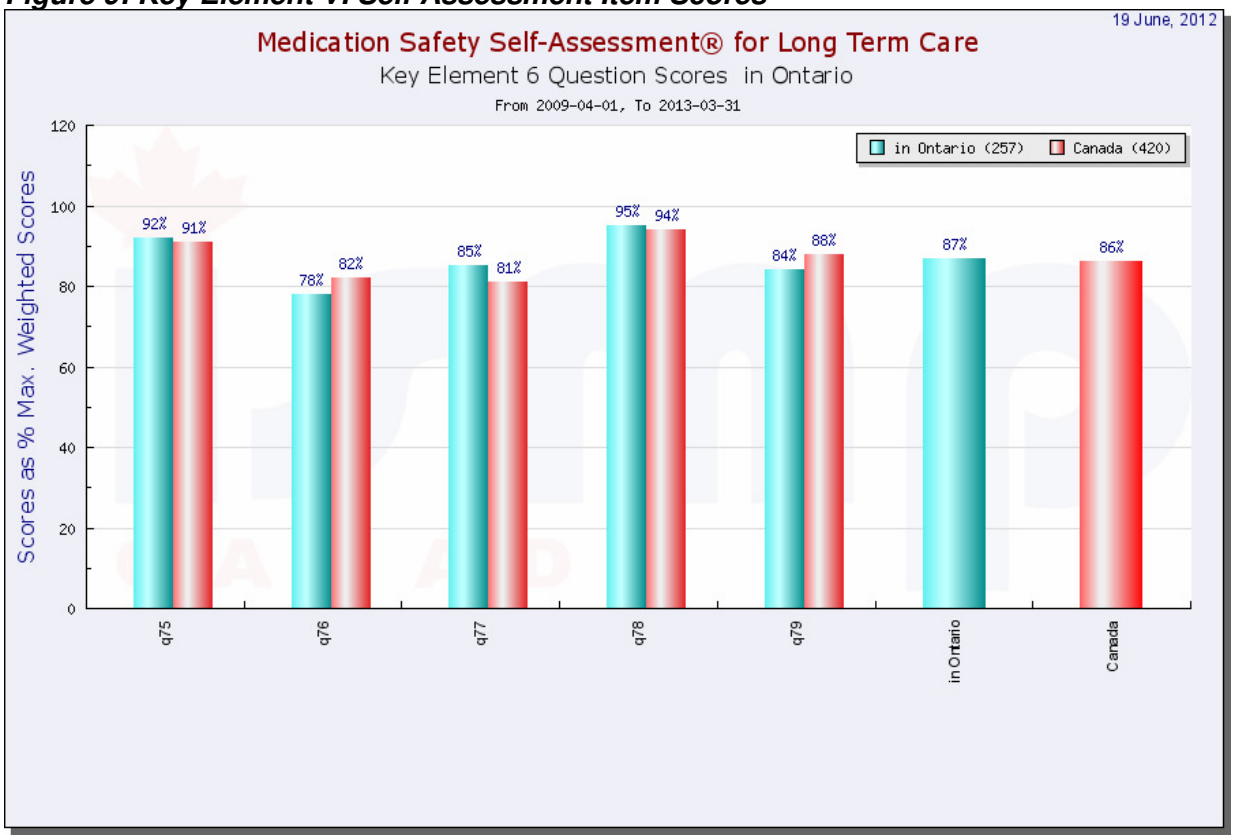



- **item #60** (*where a physician…has ordered self-administration of medications …*) – 26 sites (10%) ranked this item as A or B, indicating no activity to implement policies and procedures related to self-medication. Homes that allow residents to self-medicate, even for the occasional inhaler use, need to have a process in place to ensure the safe use of these medications. Two-thirds of the homes (168) ranked the item as E (65%), indicating that either self-medication is not permitted or, if it is, processes are in place to handle all aspects of this item.
- **item #68** (*The use of drug samples is prohibited …*) The use of drug samples is not a safe practice, since such medication is often omitted from the pharmacy resident profile. This can lead to inaccurate interaction and side effect monitoring. Additionally, the integrity of the product may not be guaranteed. The vast majority of homes indicate, through their E ranking, that this practice does not occur in the home. However, 13 sites indicated no activity to address this item.
- **item #70** (*products with look-alike names or packaging …*) – The previous aggregate score of 76% (from report submitted February 2009) has increased to 85%, suggesting many sites have addressed the safe storage of products. However, 19 sites (7%) still indicated no activity to implement.
- **item #72** (*A pharmacist is on call …*) – The score was 98% of the maximum achievable score. All but 13 sites recorded an E ranking that an on-call pharmacist is available.
-

(f) ***Key Element VI - Medication Delivery Device Acquisition, Use, and Monitoring***

The items in ***Key Element VI*** - ***Medication Delivery Device Acquisition, Use and Monitoring*** *and the Core Characteristic #11 (The potential for human error is mitigated through careful procurement, maintenance, use and standardization of medication delivery devices)* were reviewed.)

***Figure 9: Key Element VI Self Assessment Item Scores***

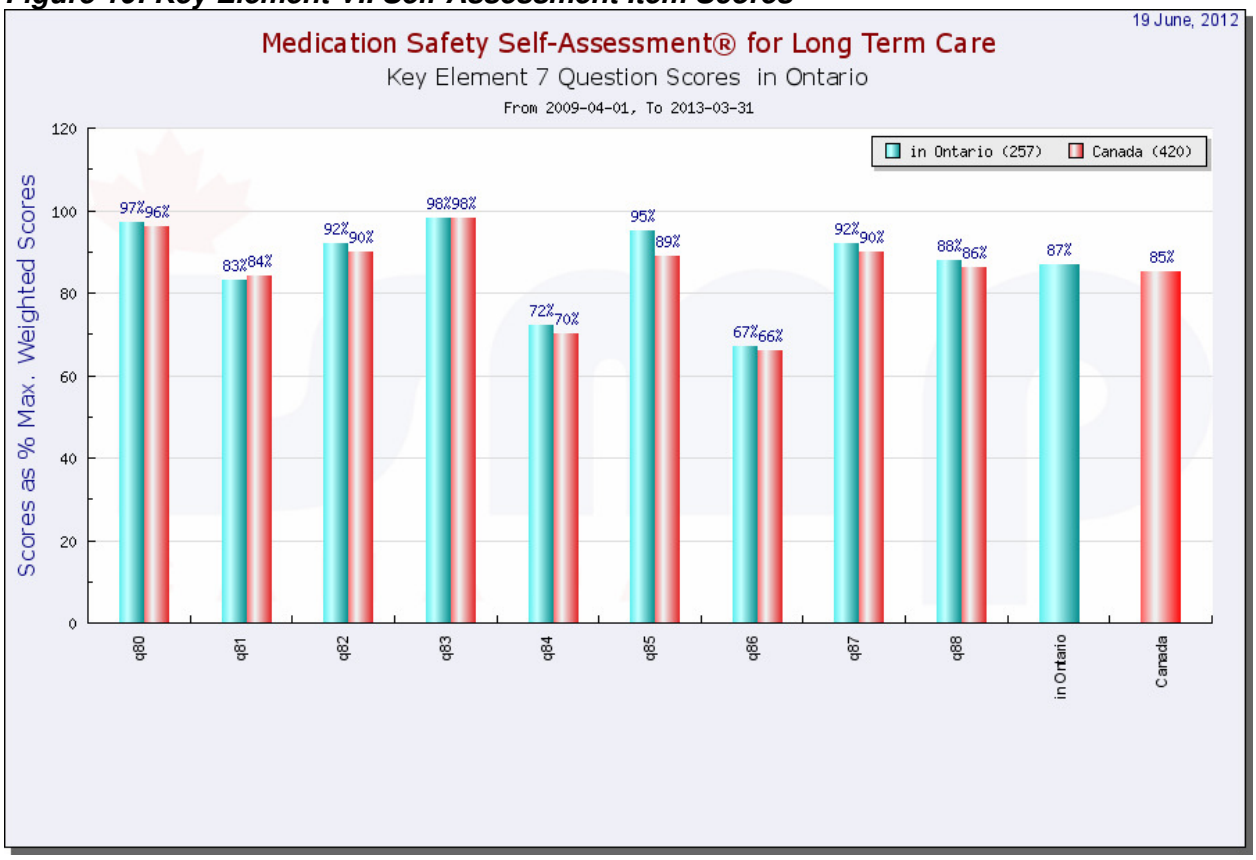



This key element and the related core characteristics address the use of medication delivery systems. Generally the use of medication delivery devices outside of insulin pens is limited currently in LTC and the high scores are assumed to reflect “not applicable” i.e. not used in most homes.

***(g) Key Element VII - Environmental Factors***

The items in ***Key Element VII - Environmental Factors*** *and Core Characteristic #12 (Medications are prescribed, transcribed, prepared, dispensed, and administered in a physical environment that offers adequate space and lighting and allows practitioners to remain focused on medication use without distractions), Core Characteristic #13 (The complement of practitioners matches the clinical workload without compromising resident safety)* were reviewed:

***Figure 10: Key Element VII Self-Assessment Item Scores***

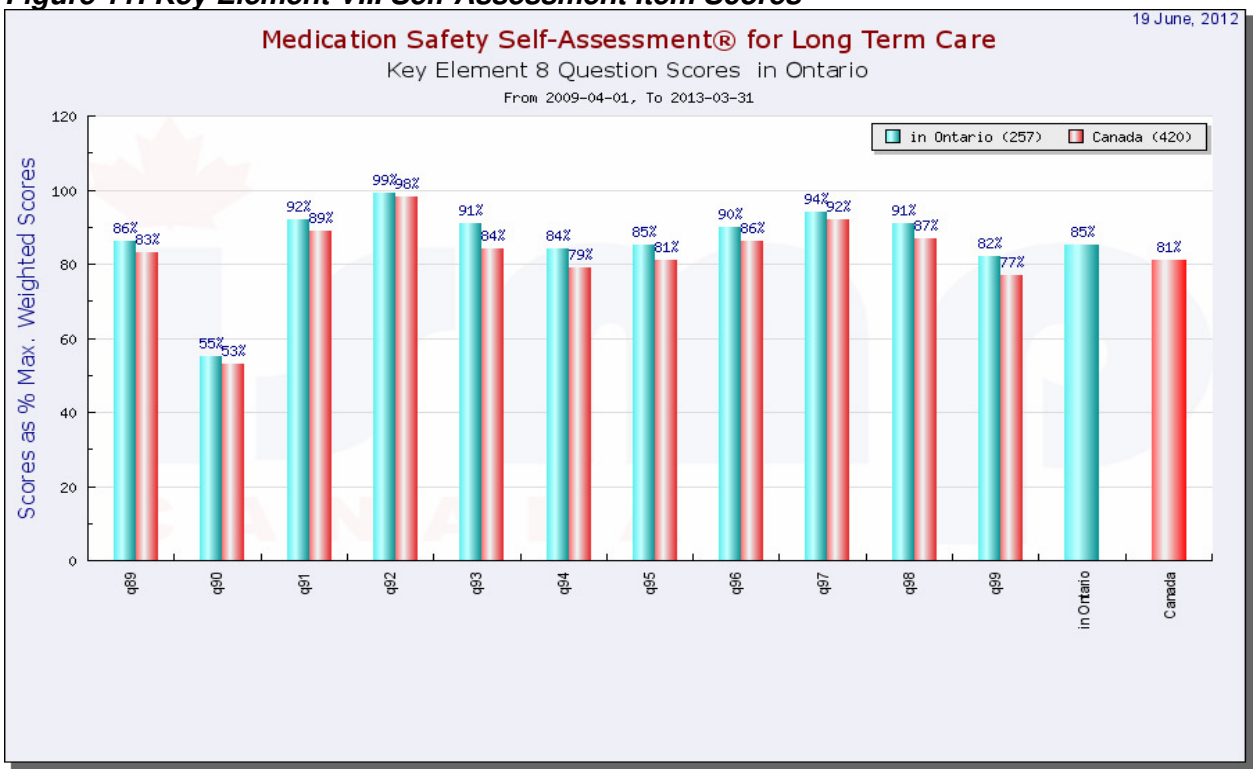



- **item #84** (*Areas where drugs are ordered, and are transcribed or entered into computer systems are isolated and relatively free of distractions and noise*) – This continues to be a challenge for many sites. 39 sites (15%) had no activity or discussion to address this issue; the remaining facilities identified noise and distraction as a risk. 104 sites (39%) ranked themselves with an E.
- **item #86** (*interruptions or distractions to staff administering medications are minimized during the medication administration process*) – 75 sites (29%) indicated full compliance (E), while 34 sites (13%) indicated A or B rankings, i.e., no activity to address this item.

### *(h) Key Element VIII - Staff Competence and Education*

The items in ***Key Element VIII - Staff Competence and Education*** *and Core Characteristic #14 (Practitioners receive sufficient orientation to medication use and undergo baseline and annual competence evaluation of knowledge and skills related to safe medication practices), #15 (Practitioners involved in medication use are provided with ongoing education about medication error prevention and the safe use of drugs that have the greatest potential to cause harm if misused)* were reviewed.

***Figure 11: Key Element VIII Self-Assessment Item Scores***

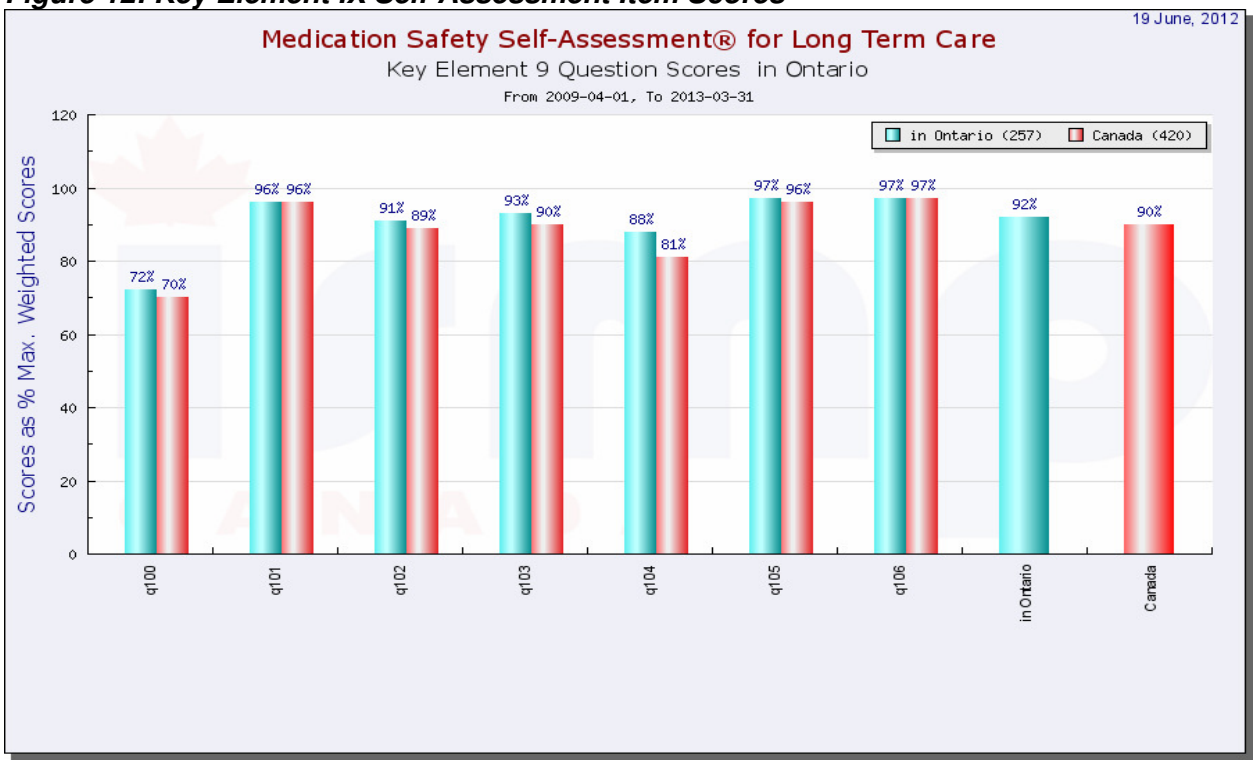



- **item #90** (*During orientation, practitioners receive information about the Home's/facility's actual error experiences …and published errors that have occurred in other Homes … educated about system-based strategies to reduce the risk of such errors*) – 53 sites (21%) ranked this item A; 34 sites (13%) ranked it as B i.e. little or no activity; and 71 sites (28%) indicated full compliance (E).
- **item #93** (*A process is in place for routine audits to assure correct medication administration, monitoring of outcomes and follow-up with staff if standards are not met*) – 196 sites (76%) ranked this item as being fully implemented (E). The Ontario homes ranking the item as E are to be commended for having all components of the process in place.
- **item #94** (*Practitioners are educated about new drugs and investigational drugs …)* – The average aggregate score was 84%. 19 sites (7%) ranked themselves as having no activity on this item, indicating an opportunity for improvement for these homes, perhaps enlisting the assistance of their pharmacy provider.
- **item #95** (*Nurses, pharmacists, and physicians receive ongoing information about medication incidents occurring within the Home, error-prone situations, incidents in other Homes, and strategies to prevent such errors*) – Only 9 sites (3%) ranked themselves with A or B, while 167 sites (65%) sites ranked themselves as fully compliant (E).
- **item #99** (*The Medical Advisory and Therapeutics Committee uses medication incident information to identify root causes and to determine appropriate intervention,…,and the results are reported …*) – 24 sites (9%) indicated no activity related to implementation of item #99, while 159 sites (62%) ranked themselves as fully compliant (E).

### *(i) Key Element IX - Resident Education*

The items in ***Key Element IX - Resident Education*** *and Core Characteristic #16 (Residents or their substitute decision makers are included as active partners in care through education about the medications and ways to avert harm from medication use)* were reviewed.

***Figure 12: Key Element IX Self-Assessment Item Scores***

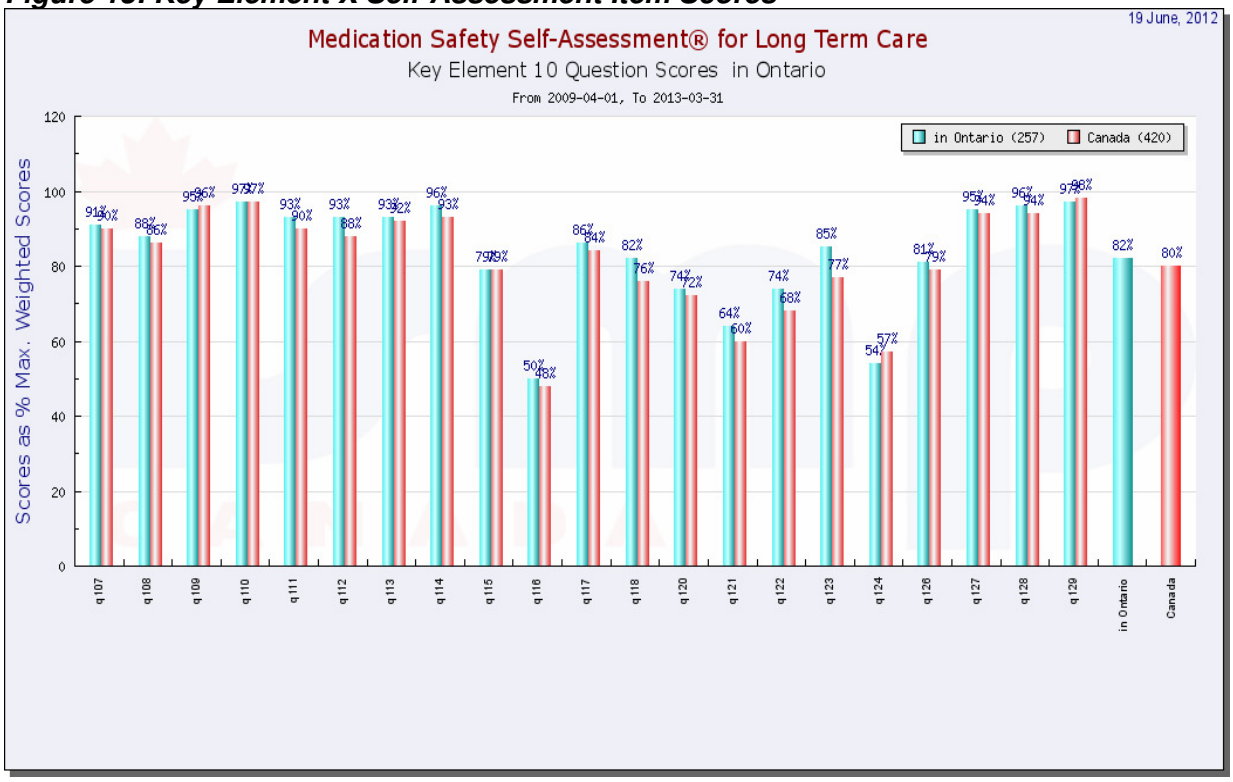



- **item #100** (… *residents are educated routinely upon admission to assist health care professionals with proper identification … before medications are administered*) – The average aggregate score was 72%. 28 sites (11%) ranked the item as A or B - there being no activity to implement, while 103 sites (40%) indicated 100% compliance (E). This may reflect that this item is not applicable to the client population being served, if their mental acuity reflects an inability to correctly identify themselves.
- **item #101** (*Current resident photographs are available with the resident-specific Medication Administration Record …*) – The average aggregate score was 96%. Facilities are to be congratulated on having the photograph available for staff as one of the two means of identifying a resident.
- **item #104** (… *practitioner informs the resident, family … of the name and strength of the drug …*) – Only 2 sites ranked themselves as B; none ranked this item an A. 169 sites (66%) ranked themselves as E.

### *(j) Key Element X - Quality Processes and Risk Management and Core Characteristic*

The items in ***Key Element X - Quality Processes and Risk Management*** *and Core Characteristic #17(A non-punitive, system-based approach to error reduction …), Core Characteristic #18 (…detect and report errors…analyze incidents…for the purpose of redesigning systems…), Core Characteristic #19 (Simple redundancies…double checks …to detect and correct serious errors…) and Core Characteristic #20 (Proven infection control practices…)* were reviewed.

***Figure 13: Key Element X Self-Assessment Item Scores***




- **item #115** (*Specific medication safety objectives … careful analysis of causes, etc. … in strategic plan*) – 39 sites (15%) ranked this item an A or B, indicating no activity. 164 sites (64%) indicated full compliance (E).
- **item #116** (*…trained practitioners … to enhance detection of medication errors …*) – 119 sites (46%) ranked this item as having no activity. This item carries the highest maximum achievable score of 16, indicating its significant impact on safety/quality. The 89 sites (35%) that achieved 100% compliance (E) are to be commended.
- **item #121** (*The Medical Advisory and Therapeutics Committee … reviews and uses published error experiences …*) – 80 sites (31%) ranked themselves as having no activity on this item.
- **item #122** (*The Medical Advisory and Therapeutics Committee … analyzes recorded adverse events in the Home ... and uses … for system improvement …*) – 48 sites (19%) ranked this item as A or B. 140 sites (54%) ranked 100% compliance (E).
- **item # 124** (*Nurses permanently document … on the MAR…an independent double check…high-alert drugs before administering …*) - 114 sites (44%) ranked this item with an A or B, identifying no activity, while 118 sites (46%) ranked themselves as 100% compliant (E).
- **item #126** (*when oral solid dosage forms are handled, staff use gloves or other appropriate infection control handling practices…)* More than three quarters of homes (203, 79%) ranked this item as D or E, indicating that staff members use appropriate medication handling practices (to avoid direct contact with the skin). However, close to 20% of homes do not practice this infection control process.

### *(iv) By Home Size*

*Figures 15 and 16* show the average aggregate scores for each of the Key Elements and Core Characteristics by the number of beds in the home. As shown in *Figures 15 and 16*, aggregate scores for some Key Elements differ with the size of the facility.

***Figure 14: Average Aggregate Scores for Key Elements by Home Size***

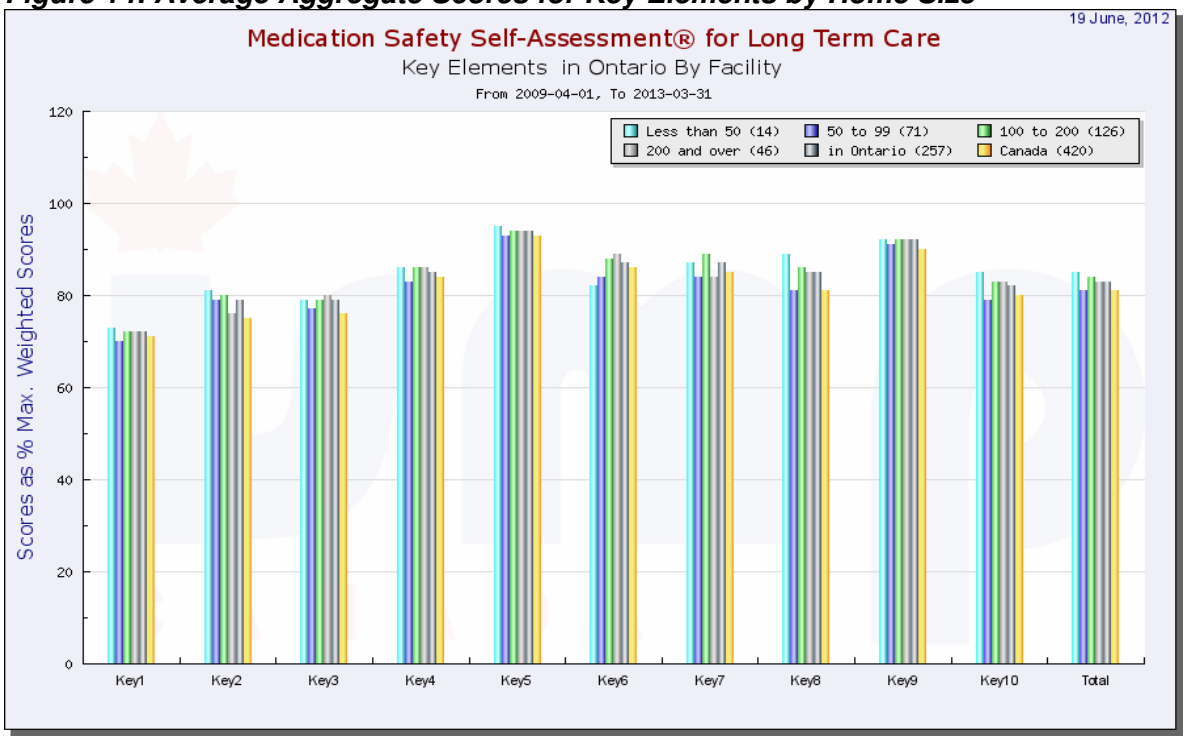
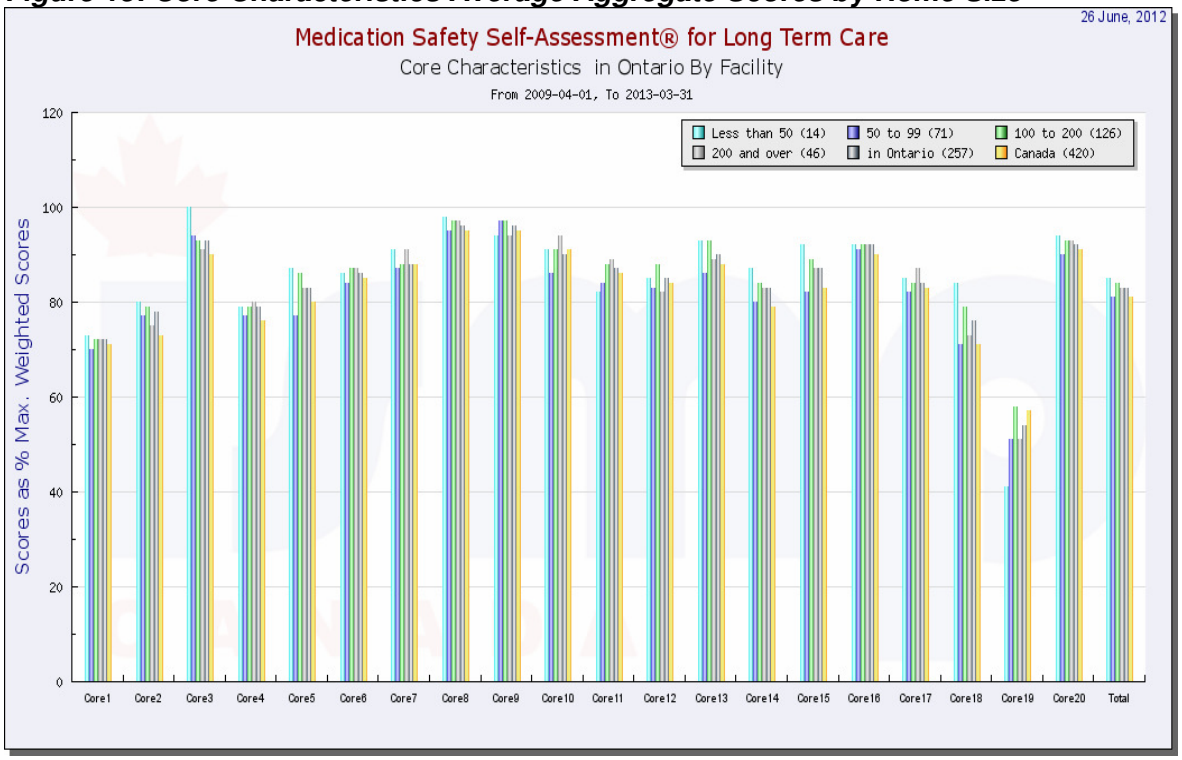



***Figure 15: Core Characteristics Average Aggregate Scores by Home Size***



# COMPARATIVE DATA FOR 2009 AND 2012

### Participation

For the 2008/2009 Medication Safety Self-Assessment® for Long-Term Care report, 296 Ontario homes' results were entered and analyzed.

For this report, the data were gathered from the ISMP Canada aggregate database for the period from April 1, 2009, to June 19, 2012. Data from 257 homes were analyzed.

### Average Aggregate Scores for Key Elements and Core Characteristics

The data for the Key Elements and Core Characteristics were graphed to compare the 2009 and 2012 results. The provincial average increased from 2009 to 2012 (77% to 83%). Two Key Elements had an increase of 10% or greater: Key Elements 8 and 10.

***Table 4: Comparison of Average Aggregate Scores for Key Elements - 2009 and 2012***

| | KEY ELEMENT | AVERAGE 2009 | AVERAGE 2012 |
|---|---|---|---|
| 1 | Resident Information | 67% | 72% |
| 2 | Drug Information | 72% | 79% |
| 3 | Communication of Drug Orders and Other Drug Information | 71% | 79% |
| 4 | Drug Labelling, Packaging and Nomenclature | 82% | 85% |
| 5 | Drug Standardization, Storage and Distribution | 90% | 94% |
| 6 | Medication Delivery Device Acquisition, Use and Monitoring | 85% | 87% |
| 7 | Environmental Factors | 80% | 87% |
| 8 | **Staff Competence and Education*** | 75% | 85% |
| 9 | Resident Education | 87% | 92% |
| 10 | **Quality Processes and Risk Management*** | 71% | 82% |
| | **Ontario Average Aggregate Score** | 77% | 83% |
| | **Canada Average Aggregate Score** | 76% | 81% |

*score increase of 10% or greater since 2009

***Table 5: Comparison of Average Aggregate Scores for Core Characteristics - 2009 and 2012***

| CORE CHARACTERISTICS | *AVERAGE 2009* | *AVERAGE 2012* |
|---|---|---|
| 1. Essential resident information obtained, available in useful format and considered when prescribing, dispensing, administering medication | 68% | 72% |
| 2. Essential drug information readily available in useful format and considered when prescribing, dispensing, administering medication | 71% | 78% |
| 3. Drug formulary system is followed | 93% | 93% |
| 4. Methods of communicating drug orders and drug information are standardized and automated | 70% | 79% |
| **5. Strategies undertaken to minimize errors related to similar drug names, packaging, etc.*** | 69% | 83% |
| 6. Clear and readable labels on all containers up to point of administration | 86% | 86% |
| 7. IV solutions, drug concentrations, doses and administration times are standardized | 83% | 88% |
| 8. Drugs are delivered to care units in safe and secure manner and available in timely manner to meet client needs | 93% | 96% |
| 9. Medications stocked in the home are limited and securely stored | 94% | 96% |
| **10. Hazardous chemicals are safely sequestered from residents and not accessible in drug preparation areas*** | 79% | 90% |
| 11. The potential for error is mitigated through standardization of procurement, storage, use and delivery processes | 85% | 87% |
| 12. Medication handling areas provide a physical environment that is adequate and allows practitioners to remain focused, etc. | 80% | 85% |
| 13. The complement of practitioners matches the workload | 82% | 90% |
| 14. Practitioners receive orientation and baseline competence evaluation related to safe medication practices | 75% | 83% |
| **15. Practitioners are provided with education about error prevention and safe use of drugs*** | 75% | 87% |
| 16. Residents or substitute decision makers are included as active partners in care | 88% | 92% |
| 17. A non-punitive approach to error reduction is in place and supported by home's administrative team | 75% | 84% |
| **18. Practitioners detect and report errors; incidents are analyzed for the purpose of system redesign to support safe practices*** | 61% | 76% |
| 19. Simple redundancies that support a system of automatic verification processes are used, etc. | 45% | 54% |
| 20. Proven infection control practices are followed when storing, preparing and administering medications | 86% | 92% |
| **Ontario Average Aggregate Score** | 77% | 83% |
| **Canada Average Aggregate Score** | 76% | 81% |

*Core characteristics with an increase of 10% or more in scoring between 2009 and 2012.

### Average Aggregate Scores for Key Elements by Facility Size

Facilities with more than 200 beds had the greatest increase in the average aggregate scores (8%), while the groups with fewer than 50 beds and those with 100-200 beds each had a 6% increase. The 50-99 bed group had a 5% increase.

***Table 6: Average Aggregate Scores (%) for Key Elements by Facility Size - 2009 and 2012***

| Key Element | <50 beds | | 50-99 beds | | 100-200 beds | | >200 beds | |
|---|---|---|---|---|---|---|---|---|
| | 2009 | 2012 | 2009 | 2012 | 2009 | 2012 | 2009 | 2012 |
| #I | 69 | 73 | 66 | 70 | 68 | 72 | 68 | 72 |
| #II | 71 | 81 | 72 | 79 | 74 | 80 | 73 | 76 |
| #III | 73 | 79 | 68 | 77 | 72 | 79 | 69 | 80 |
| #IV | 84 | 86 | 83 | 83 | 83 | 86 | 81 | 86 |
| #V | 92 | 95 | 90 | 93 | 91 | 94 | 88 | 94 |
| #VI | 88 | 82 | 88 | 84 | 82 | 88 | 86 | 89 |
| #VII | 84 | 87 | 79 | 84 | 82 | 89 | 78 | 84 |
| #VIII | 80 | 89 | 76 | 81 | 76 | 86 | 69 | 85 |
| #IX | 90 | 92 | 87 | 91 | 89 | 92 | 84 | 92 |
| #1X | 77 | 85 | 71 | 79 | 72 | 83 | 67 | 83 |
| Avg Ontario | 79 | 85 | 76 | 81 | 78 | 84 | 75 | 83 |
| Avg Canada | 75 | 76 | 76 | 81 | 76 | 84 | 74 | 82 |

# INTERPRETATION OF RESULTS

**System Strengths Across the Province**
*(based on a score of 90% or higher)*

*Table 7* highlights the specific self-assessment items that scored 90% of maximum achievable score or higher. These self-assessment items are presented by their respective Key Element and Core Characteristic. The items printed in **black** type are system strengths noted in the Ontario MOHLTC report in 2009 that are repeated in 2012. The items in **blue** type are new improvements in 2012. The items in **violet** type have scores that dropped below 90% in 2012.

***Table 7: System Strengths***
***(based on aggregate scores of 90% or more of the maximum achievable score)***

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| ***I Resident Information*** | ***1*** | Item #5 pharmacy system screens for allergies and flags them for staff during order entry<br><br>Item #6 current allergy information on MARs<br><br>Item #10 basic resident information visible on medication orders and transmitted to pharmacy<br><br>**item #13 current drug history taken upon admission (likely reflects efforts to implement medication reconciliation)**<br><br>Item #15 clinical drug monitoring<br><br>Item #16 critical lab value notification system for physicians |
| ***II Drug Information*** | ***2*** | **Item #17 drug reference materials available in each care area**<br><br>Item #18 drug references are reviewed annually<br><br>**Item #19 current protocols, guidelines, etc. … accessible and used when indicated**<br><br>**Item #20 home/pharmacy drug information tools undergo formal approval process**<br><br>Item #21 pharmacist involved as an active member of the care team<br><br>Item #26 updates for pharmacy computer system loaded at least quarterly<br><br>**Item #27 all drug orders entered into computerized resident profile and screened before dispensed and administered**<br><br>Item #28 pharmacy computer system maintains medication profiles (100%) |
| | ***3*** | Item #29 copies of formulary are accessible in the Home<br><br>Item #30 new/repeat order process in place |

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| ***III Communication of Drug Orders and Other Drug Communication*** | ***4*** | Item #31 information complete on medication orders<br>**Item #34 upon admission/readmission complete orders for medication are written**<br><br>**Item #35 verbal orders when physician on site taken only in true emergencies**<br><br>Items #36, 37,38 telephone order policy followed<br><br>**Item #40 during medication administration process, drug selection and verification using resident's Medication Administration Record, and documented at time of administration**<br><br>**Item #42 process for conflict resolution when there are concerns about safety of drug order** |
| ***IV Drug Labelling, Packaging and Nomenclature*** | ***5*** | |
| | ***6*** | Item #45 clear and distinctive medication labels<br><br>Item #48 medications and biologicals labelled for individual residents<br><br>Items #51-53 labelling of commercially available IVs; those that ranked the item A to D imply use of commercially prepared IVs but not full implementation, which indicates possible risk; E rankings assumed to reflect lack of use. There may currently be added pressure for use of parenteral products that homes may not be ready to handle.<br><br>Item #54 drugs dispensed in labelled, ready-to-use single dose packaging<br><br>Item #55 drugs remain in original packaging to point of administration |
| ***V Drug Standardization, Storage, and Distribution*** | ***7*** | Item #57 IV solutions - no meds added to IV solutions<br><br>Items #58,59 standard drug times and dosing windows established |
| | ***8*** | Items #61,62 drug delivery to facilities and nursing notification<br><br>**Item #63 discontinued drugs removed from resident supplies**<br><br>Items #64-68 secure areas for drugs awaiting destruction, drug destruction procedures meet legislative requirements, appropriate delivery times for new drug orders, availability of prescribers, use of drug samples prohibited |

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| | ***9*** | Item #69 non-prescription medications stocked based on resident use<br><br>Item #71 limited after hours stock available<br><br>**Item #72 on-call pharmacist available**<br><br>**Item #73 regular inspection of drug storage areas** |
| | ***10*** | Item #74 no hazardous chemicals or cleaning compounds in medication areas |
| ***VI Medication Delivery Device Acquisition, Use and Monitoring*** | ***11*** | **Item #75 practitioners are educated about the use of pumps and other medication devices**<br><br>Item #78 standardization of medication administration devices in use |
| ***VII Environmental Factors*** | ***12*** | Item #80 lighting adequate to read labels…<br><br>**Item #82 adequate storage space for drugs**<br><br>Item #83 medication storage consistent with manufacturers recommendations<br><br>Item #85 refrigerator used to store only medications and temperature is monitored and recorded daily |
| | ***13*** | **Item #87 effective back-up plan for unusual staffing shortages** |
| ***VIII Staff Competence and Education*** | ***14*** | **Item #91 orientation to all components of the medication system**<br><br>Item #92 new practitioner orientation time can be individualized<br><br>**Item #93 process for routine audits of medication administration, outcomes and follow-up** |
| | ***15*** | **Items #96, 97, 98 support, adequate response and education around medication errors** |
| ***IX Resident Education*** | ***16*** | Item #101 current resident photograph available to assist nursing staff in identifying the resident before medication administration<br><br>**Item #102 prescribers educate resident/family about medication therapy**<br><br>**Item #103 staff inform resident/family of name of drug**<br><br>Item #105 resident/family encouraged to ask questions about meds<br><br>Item #106 follow up resident/family concerns regarding medication |

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| ***X Quality Processes and Risk Management*** | ***17*** | **Item #107 error prevention strategies target the system, not individual practitioners**<br><br>**Items #109-114 relates to risk management** |
| | ***18*** | |
| | ***19*** | |
| | ***20*** | Item #127 hand washing prior to preparing or administering injections<br><br>Item #128 avoid using multiple dose vials<br><br>Item #129 eye, ear, topicals not used for more than one resident |

**Items Showing an Impressive Improvement Since 2009**

***Table 8: Table of Items with an Increase in Average Aggregate Score of >10%***

| Item Number | Item Description |
|---|---|
| #2 | process for routine adjustment of dose in residents with renal or liver impairment |
| #13 | current drug history obtained on admission |
| #14 | drug history on admission |
| #19 | protocols for high alert drugs accessible to caregivers and used |
| #20 | drug information tools formally approved before use in home |
| #24 | pharmacy system performs maximum dose checks for high alert drugs |
| #43 | Medication safety literature regularly reviewed by Committee & action taken to prevent error |
| #60 | self-administration process…; |
| #74 | no storing of hazardous chemicals in med rooms or med preparation areas |
| #90 | orientation includes information about Home's error experiences and system-based strategies to reduce errors |
| #95 | staff receive ongoing information about incidents in the Home & strategies to prevent |
| #98 | when errors occur education to all practitioners |
| #99 | Committee examines med incidents for root causes…appropriate interventions… |
| #100 | when possible residents educated on admission how to assist in their identification during med administration |
| #116 | trained practitioners employed to enhance error detection, examine causes, & coordinate error prevention |
| #107 | error prevention strategies target the system not individuals… |
| #112 | positive feedback to individuals reporting errors… |
| #115 | medication safety objectives are included in strategic plans |
| | #117 practitioners educated on need for and importance of incident reporting |
| #118 | all med incidents analyzed by multidisciplinary team & develop/implement system prevention strategies |
| #121 | Committee reviews published error experiences to target improvements |
| #122 | Committee analyzes recorded adverse events in Home & uses for system improvement |
| #86 | Interruptions to staff administering meds are minimized during administration |

**Quality Improvement Opportunities**

*Table 9* highlights areas of potential improvement that could be considered for home, corporate, regional or province-wide quality improvement initiatives. The items were selected based on an arbitrary cut off point of 70% of the maximum achievable score.

The selection of items for action by an individual home may be determined by:

- the weight of an item (e.g., 4, 8, 12 or 16), which indicates the significance of its impact on safety,
- what is perceived as a particular problem by staff in a home,
- other information available in the home (e.g., medication incident reports, adverse events reports),
- other initiatives to which an item could be aligned (e.g., technology implementation, Accreditation), and by
- staffing and other resource requirements.

***Table 9: Quality Improvement Opportunities (based on a cut-off level of 70% of maximum achievable score)***

| *KEY ELEMENT* | *CORE CHARACTERISTIC* | *DESCRIPTION* |
|---|---|---|
| ***I Resident Information*** | ***1*** | Item #1 access to laboratory values from locations where medication orders are generated would ensure a safer process and avoid resident harm; technology would enable this<br><br>Item #4 resident allergies should be included on all pages of order forms; this would be easier with the use of computerized prescriber order entry technology<br><br>Item #9 barcoding to identify the resident along with other technological advancements offers future opportunity for improvement |
| ***II Drug Information*** | ***2*** | Functionality that needs to be incorporated into software designs and requested by purchasers (in specifications) as homes move to introduce more technology:<br><br>Item #22 dose range checks in computerized prescriber order entry systems<br>Item #23 dose range checks customized in Pharmacy dispensing systems<br>Item #24 maximum dose checks for high alert meds in pharmacy dispensing systems<br>Item #25 maximum dose checks in computerized prescriber order entry systems |
| | ***3*** | |

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| ***III Communication of Drug Orders and Other Drug Communication*** | ***4*** | Item #32 include clinical indication in drug orders<br><br>Item #39 computer-generated or electronic medication administration records share database with the pharmacy system and when available with the computerized prescriber order entry system<br><br>Item #41 medication system includes technology of computerized prescriber order entry, electronic medication administration record, and barcoding for dispensing and administration |
| ***IV Drug Labelling, Packaging and Nomenclature*** | ***5*** | |
| | ***6*** | Item #49 machine readable coding, e.g., bar coding; used to verify drug in the dispensing and administration processes |
| ***V Drug Standardization, Storage, and Distribution*** | ***7*** | |
| | ***8*** | |
| | ***9*** | |
| | ***10*** | |
| ***VI Medication Delivery Device Acquisition, Use and Monitoring*** | ***11*** | |
| ***VII Environmental Factors*** | ***12*** | Item #86 interruptions minimized during administration of medication |
| | ***13*** | |
| ***VIII Staff Competence and Education*** | ***14*** | Item #90 incident information shared during orientation |
| | ***15*** | |
| ***IX Resident Education*** | ***16*** | |
| ***X Quality Processes and Risk Management*** | ***17*** | Item #116 practitioners employed to detect errors, analysis, reduction plan |
| | ***18*** | Item #121 a multidisciplinary committee uses published error experiences |
| | ***19*** | Item #124 permanent documentation for double checks of high alert drug administration |
| | ***20*** | |

# SUMMARY REMARKS

For the 257 homes analyzed for the 2012 report, there was an increase in the overall score by 6% over the 2009 results. Every Key Element score increased. Key Elements 8 (staff competence and education) and 10 (quality process and risk management) had the greatest increases (10% or greater). These results imply that medication safety has been a focus of quality improvement efforts in many homes over the last three years.

A number of LTC homes have incorporated the MSSA into their quality improvement activities, as evidenced by the number of assessments completed (374 assessments in this reporting period) and the number of homes that have completed the program regularly (114 homes). The MSSA assists homes to fulfill the new Ontario Long Term Care Act regulations, which require an annual evaluation of the medication system. The graphs of a home's results, including comparisons to its own past results, regional, provincial, and national data, assist in identifying potential improvement opportunities in the medication system and document the improvement changes over time.

Table 7 lists the strengths identified within the sector, assuming the reporting homes are generally representative of the LTC environment. Items with scores of 100% were #28 - *pharmacy computer system maintains medication profiles*, #61 - *pharmacy controlled delivery to care units, and* #71 - *after hours stock.* Items improved by more than 10% since 2009 are listed in Table 8. The Item with the greatest change since 2009 was #33 - *a list of prohibited, dangerous abbreviations and unacceptable methods of expressing doses; using trailing zeros for whole number doses of lack of using a leading zero for doses less than one; is established and used for all communication of drug information or orders*.

Table 9 identifies potential improvement opportunities. Homes should be capable of implementing many of the items without external or additional assistance. Having the clinical indication included in a medication order could be instituted on a home-specific basis; however technology enhancements would facilitate inclusion of this information as well as supported by province-wide initiatives. The lowest scores were technology-related and item #9 - *bar coding during drug administration* was the lowest scoring item at 13%.

Finding forums in which to share experience with initiatives and implemented improvements with others in the sector is a challenge. Homes that are not able to comply with selected items could benefit by learning from facilities that have ranked themselves with an E on those items.

Opportunities for improvement progress (e.g., technology implementation, inclusion of clinical indication in medication orders) by individual homes, as well as system-wide, remain. Many homes have made great improvements in their medication systems over the last 3 years and this is cause for celebration!

As a closing comment, the MSSA LTC program has recently been updated and is now available as Version II. The new Version includes a number of appendices to assist users e.g. facilitator's guide, how to present results. ISMP Canada's MSSA LTC website data portal now only accepts results for the new version. Users can continue to view their previous results and all data are back-compatible and comparable.

# APPENDIX I LIST OF KEY ELEMENTS & CORE CHARACTERISTICS

***Table 9: Key Elements and Core Characteristics of the Medication Safety Self-Assessment® for Long Term Care***

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| ***I Resident Information*** | ***1*** | Essential resident information is obtained, readily available in useful form, and considered when prescribing, dispensing and administering medications. |
| ***II Drug Information*** | ***2*** | Essential drug information is readily available in useful form and considered when ordering, dispensing and administering medications. |
| | ***3*** | Where applicable, a drug formulary system is followed (e.g., provincial, national or payee) to limit choice to essential drugs, minimize the number of drugs with which practitioners must be familiar, and provide adequate time for designing safe processes for the use of new drugs added to the formulary. |
| ***III Communication of Drug Orders and Other Drug Communication*** | ***4*** | Methods of communicating drug orders and other drug information are standardized and automated to minimize the risk for error. |
| ***IV Drug Labelling, Packaging and Nomenclature*** | ***5*** | Strategies are undertaken to minimize the possibility of errors with drug products that have similar or confusing manufacturer labelling/packaging and/or drug names that look or sound alike. |
| | ***6*** | Clear and readable labels that identify medications are on all containers, and medications remain labelled up to the point of actual administration. |
| ***V Drug Standardization, Storage, and Distribution*** | ***7*** | IV Solutions, drug concentrations, dose, and administration times are standardized whenever possible. |
| | ***8*** | Drugs are delivered to care units in a safe and secure manner and available for administration within a time frame that meets essential resident needs. |
| | ***9*** | Medications stocked in the Home/facility are limited and securely stored. |
| | ***10*** | Hazardous chemicals are safely sequestered from residents and not accessible in drug preparation areas. |
| ***VI Medication Delivery Device Acquisition, Use and Monitoring*** | ***11*** | The potential for human error is mitigated through careful procurement, maintenance, use and standardization of medication delivery devices. |

| KEY ELEMENT | CORE CHARACTERISTIC | DESCRIPTION |
|---|---|---|
| ***VII Environmental Factors*** | ***12*** | Medications are prescribed, transcribed, prepared, dispensed and administered in a physical environment that offers adequate space and lighting and allows practitioners to remain focused on medication use without distractions. |
| | ***13*** | The complement of practitioners matches the clinical workload without compromising resident safety. |
| ***VIII Staff Competence and Education*** | ***14*** | Practitioners receive sufficient orientation to medication use and undergo baseline and annual competence evaluation of knowledge and skills related to safe medication practices. |
| | ***15*** | Practitioners involved in medication use are provided with ongoing education about medication error prevention and the safe use of drugs that have the greatest potential to cause harm if misused. |
| ***IX Resident Education*** | ***16*** | Residents or their substitute decision makers are included as active partners in care through education about the medications and ways to avert harm from medication use. |
| ***X Quality Processes and Risk Management*** | ***17*** | A non-punitive, system-based approach to error reduction is in place and supported by the Home's/facility's administration team. |
| | ***18*** | Practitioners are stimulated to detect and report errors, and interdisciplinary teams regularly analyze incidents that have occurred within the Home/facility and in other Homes or health care facilities for the purpose of redesigning systems to best support safe practitioner performance. |
| | ***19*** | Simple redundancies that support a system of independent double checks or an automated verification process are used for vulnerable parts of the medication system to detect and correct serious errors before they reach residents. |
| | ***20*** | Proven infection control practices are followed when storing, preparing and administering medications. |