

**Quality Outcomes for CARF-accredited
Long-term Care Homes in Ontario, Canada:
Analysis of 2021 Key Performance Indicator Data**



March 2023

Introduction

CARF International, a non-profit accreditor of health and human services, was founded in 1966. CARF's mission is *to promote the quality, value, and optimal outcomes of services through a consultative accreditation process and continuous improvement services that centre on enhancing the lives of the persons served.*

Although initially focused on standards for rehabilitation facilities, CARF expanded to accredit a range of community services, including mental health and addictions services, child and youth services, employment and community services, networks, and aging services. By the end of 2022, CARF accredited more than 65,000 programs/sites in 25 countries.

In 2006, CARF published standards for Person-Centred Long-Term Care Community (PCLTCC) programs, also known as long-term care (LTC) or nursing homes. The internationally recognized standards for PCLTCC were developed and are maintained with input from the field, including persons served, providers, and funders. In order to achieve CARF accreditation, PCLTCC providers must conform to numerous business practice, care process, and program-specific standards, including those that exceed regulatory requirements.

CARF currently accredits more than 350 PCLTCC locations in five countries: Canada, the U.S., United Arab Emirates, Ireland, and China. **Eighty-nine percent of these locations are in Canada.**

PCLTCCs serve a vulnerable population, and are subject to rigorous oversight by governmental entities. Quality of care and life in long-term care (LTC) homes is of utmost importance to residents and their families/support systems, communities, and governments. In some jurisdictions across Canada, accreditation is mandated or incentivized for this sector in the interest of quality improvement. In Ontario, Canada, LTC homes have a choice of two accreditors, including CARF, as a condition to qualify for a funding premium under the *Quality Attainment Premium Funding Policy*.¹

CARF believes in the importance of accreditation research, both internal and external, to provide information on strengths and areas needing improvement. To this end, CARF has conducted analyses of key performance indicator (KPI) data over three reporting periods for LTC homes in Ontario, Canada, using information posted on the Health Quality Ontario (HQO) website. Defined in [Appendix A](#), these indicators included antipsychotic medication use, pressure ulcers, falls, physical restraints use, depression, and pain. The subject of this paper is an analysis of this 2020/21 KPI data. The analysis of the 2020/21 data found that CARF-accredited LTC homes in Ontario performed better, on average, than homes that were not CARF-accredited on all six KPIs. This is consistent with findings of a similar review conducted in 2019.

Literature Review

CARF is committed to the conduct of accreditation research emphasizing outcomes measurement and management, and to providing information on common program strengths as well as areas needing improvement. To this end, CARF's Research and Quality Improvement (RQI) department collects and analyzes data to inform and strengthen accreditation standards and processes. As well, CARF looks to relevant external studies and open source data to inform its work. In this section, we highlight available research on CARF accreditation of PCLTCCs.

Analyses conducted by the RQI department have continuously shown that most CARF-accredited providers found on-site surveys beneficial to their organization. Most recently, 99 percent of aging services program survey respondents reported that their on-site survey was beneficial for their organization.

In 2008, CARF aging services standards for PCLTCC were approved for LTC homes in Ontario, Canada, as a result of a study, *Introducing CARF Accreditation into the LTC Sector in Ontario: Evaluation Report*. According to the report, the overall results of this evaluation...pilot project are positive. All four objectives of the pilot project as defined in the evaluation framework were met substantially or completely. Based on this evaluation, it appears that CARF's accreditation process for long-term care providers in

Ontario is able to meet the broad objectives of the accreditation premium provided by Ontario's Ministry of Health & Long Term Care.²

In 2013, a study titled, *Impact of Voluntary Accreditation on Short-Stay Rehabilitative Measures in U.S. Nursing Homes* found that, CARF-accredited nursing homes demonstrate better quality with regard to the short-stay quality measures, and concluded, approaches beyond traditional regulation and governmental inspections are necessary to improve the quality of care in nursing homes.³

In 2019, CARF conducted an analysis of KPI data posted on the HQO website to determine if there was a relationship between CARF accreditation and quality outcomes in the LTC sector in Ontario, Canada.⁴ For the 2016–2017 period, KPIs included antipsychotic medication use, pressure ulcers, physical restraint use, and falls; in the 2017–18 period, data for pain and depression were made available. LTC KPI data for both reporting periods were analyzed, and it was found that CARF-accredited LTC communities performed better on all six KPI indicators, on average, than other homes. The differences between CARF and non-CARF homes were statistically significant for all indicators except for falls.

Analysis of 2020/2021 LTC Key Performance Indicator Data: Ontario, Canada

In 2022, CARF undertook a new analysis of six LTC KPIs for the 2020/21 reporting period ending March 31, 2021. The six KPIs were antipsychotic medication use, pressure ulcers, falls, physical restraints use, depression, and pain.⁵ [Appendix A](#) contains the definitions for each KPI.

For each KPI, a lower percentage is indicative of better performance.

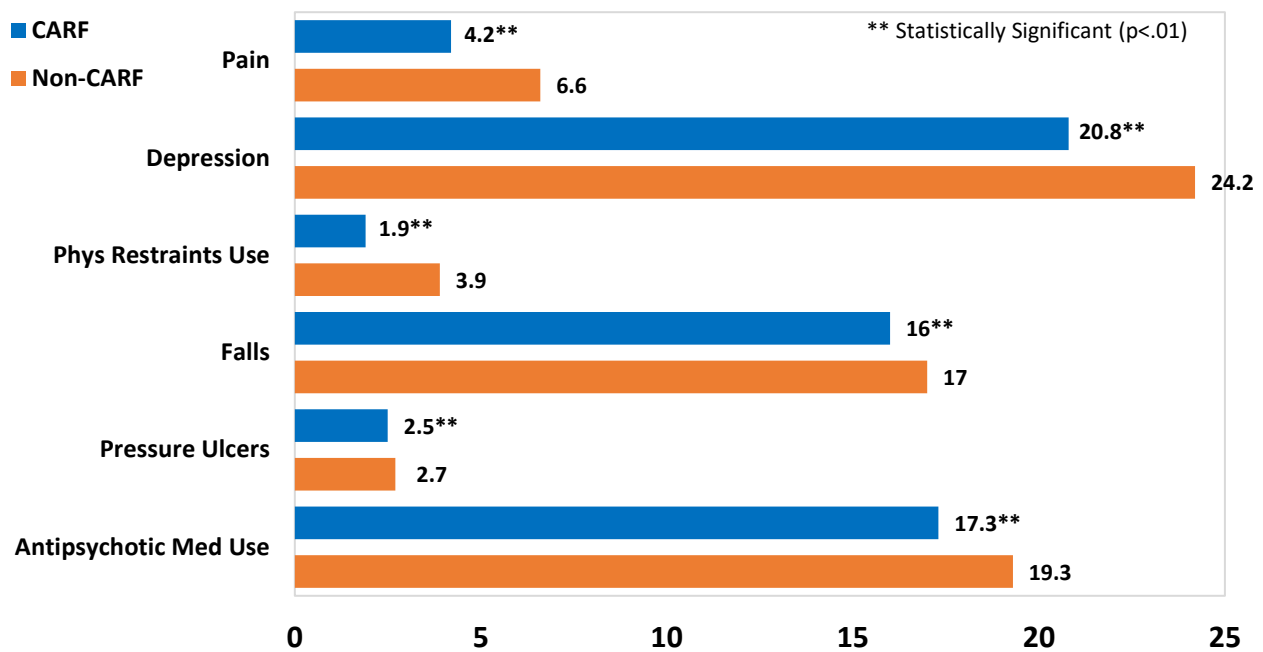
The secondary data on KPIs used for this analysis was publicly posted on the HQO website at the time of this review⁵. HQO attributed the data to the Continuing Care

Reporting System (CCRS), provided by the Canadian Institute for Health Information (CIHI). [Appendix B](#) contains notes related to the data.

CARF generated a list of CARF-accredited PCLTCCs in Ontario, Canada, as of March 31, 2021, and paired this list with the KPI data to conduct this analysis. On this date, more than 40 percent of the LTC homes in Ontario, Canada were CARF-accredited.

This new study, based on the 2020/21 KPI data found that the performance of CARF-accredited LTC homes was better than that of homes that were not CARF-accredited, on average, for all six KPIs (see Figure 1).

Figure 1: KPI Averages for CARF Accredited and Non-CARF LTC Homes (%)



Note: For each KPI, a lower percentage is indicative of better performance. This analysis compares CARF-accredited LTC homes as of March 31, 2021, to homes that were not CARF-accredited (other homes) on that date. Other homes include those that are not accredited, or accredited by a different accreditation body.

Further, statistical significance tests were performed, and it was determined that the differences between CARF-accredited homes and other homes were statistically significant for all six indicators, with a high level of confidence ($p < .01$).

The relationship of CARF accreditation to the KPI outcomes may be rooted in the field-driven, international-consensus standards for PCLTCC. CARF accreditation of each PCLTCC provider considers conformance to more than 1,000 standard elements, including standards related to the KPI indicators in this analysis.

This analysis reinforces the findings of the prior analysis of 2016–2018 KPI data that also found that CARF-accredited LTC homes performed better on all indicators, on average, than other homes. These findings are an encouraging signal of the reliability of this data in demonstrating the positive outcomes of CARF accreditation in this sector.

Summary

The analysis of 2020/21 Ontario LTC home KPI data provides further evidence of the benefit of CARF accreditation in the LTC sector, and supports the findings of previous research. CARF's assertion that accreditation *enhances the lives of persons served* is supported by the KPI data over three reporting periods.

Appendix A: KPI Definitions

The definitions for the six KPIs, as found on the HQO website⁵, are:

Antipsychotic Medication (*Residents not living with psychosis who were given antipsychotic medication*): percentage of long-term care home residents not living with psychosis who were given antipsychotic medication in the seven days before being assessed by a health care professional. A lower percentage is better.

Depression (*Long-term care home residents with worsened symptoms of depression*): percentage of long-term care home residents who experienced growing sadness, anger, anxiety, or tearfulness since being assessed by a health care professional. A lower percentage is better.

Falls (*Long-term care residents who fell*): percentage of long-term care home residents who fell in the 30 days before being assessed by a health care professional. A lower percentage is better.

Pain (*Long-term care home residents experiencing pain*): percentage of long-term care home residents who experienced moderate pain daily, or any severe pain, during the seven days before being assessed by a health care professional. A lower percentage is better.

Physical Restraints (*Long-term care home residents who were physically restrained*): percentage of long-term care home residents who were physically restrained every day in the seven days before being assessed by a health care professional. A lower percentage is better.

Pressure Ulcers (*Long-term care home residents with pressure ulcers*): percentage of long-term care home residents who had a new, or worsened, pressure ulcer (bed sore) since being assessed by a health care professional. A lower percentage is better.

Appendix B: Limitations and Notes

- This analysis is based on the information posted on the HQO website for the 2020/21 reporting period. Six LTC homes were not included in the HQO spreadsheet, including three CARF-accredited LTC homes. The HQO spreadsheet listed KPIs for 621 of 627 LTC homes in Ontario as of March 31, 2021.⁶
- Although the HQO spreadsheet indicated that the *Data cut prepared in December 2021*⁵, the Systems Performance department at Ontario Health clarified that it received the data for the 2020/21 reporting period in December 2021; the 2020/21 reporting period was from April 1, 2020, to March 31, 2021. Therefore, this analysis is based on LTC homes that were CARF-accredited as of the end of the reporting period on March 31, 2021.
- The HQO website includes this Interpretation Note: *Results for fiscal year 2020/21 should be interpreted with caution as the COVID-19 pandemic may have affected data collection.*⁵
- Ontario Health's Systems Performance department confirmed the KPI data for all six indicators used in this analysis were from the CCRS, provided by CIHI. The HQO spreadsheet notes, *Parts of this material are based on data and information provided by the Canadian Institute for Health Information. However the analyses, conclusions, opinions and statements expressed herein are those of the author, and not necessarily those of the Canadian Institute of Health Information.*⁵

References

1. *Quality Attainment Premium Funding Policy*, Ontario Ministry of LTC, April 1, 2020.
2. *Introducing CARF Accreditation into the Long Term Care Sector in Ontario: Evaluation Report*, Canadian Outcomes Research Institute, September 2008
<http://www.carf.org/ontario/LTCPilotEvaluationReport>
3. Wagner, L. M.; McDonald, S. M.; and Castle, N. G. (2013), *Impact of Voluntary Accreditation on Short-Stay Rehabilitative Measures in U.S. Nursing Homes*. *Rehabil Nurs*, 38: 167–177. doi:10.1002/rnj.94
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4. *Enhancing the Lives of the Person Served: Quality Outcomes for Ontario’s CARF-Accredited Long-Term Care Homes*, CARF, May 2019.
5. *Long-Term Care Home Performance in Ontario: Long-Term Care Quality Indicator Data*, Health Quality Ontario, <https://hqontario.ca/System-Performance/Long-Term-Care-Home-Performance>, February 10, 2022. (Note: Reporting period 2020/21, Data cut prepared in December 2021.)
6. *Long-term care homes in Canada: How many and who owns them?* Canadian Institute for Health Information, <https://www.cihi.ca/en/long-term-care-homes-in-canada-how-many-and-who-owns-them>.