

# National Quality Improvement Conference

## Reducing Healthcare Utilization and Improving Quality of Death of Nursing Home Residents in the Last Year of Life

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### Problem Statement

- GeriCare supports Nursing Homes (NHs) in collaborative geriatric and palliative care for their residents.
- NH residents at their end-of-life (EOL) would benefit from being cared for and dying in the NH compared to an acute care hospital.
- Despite the support from GeriCare, 59% of NH decedents, who were enrolled to GeriCare, died in the hospital in 2022.

### Project Aim

**Primary aim:** To **decrease % of in-hospital deaths** of NH residents enrolled in GeriCare **from 59% to 49% over 6 months.**

**Co-indicator:** To **monitor % preferred place of death (PPOD) concordance**, as a supporting indicator that residents' preferences to die outside of the hospital are honoured.

### Lessons Learnt



**Quality improvement initiatives** help to uncover root causes that lead to enhancement of patient care.



Commitment from the stakeholders is required for implementation and long-term sustainability.



Feedback from stakeholders is highly essential to drive improvements and implement solutions.

### Potential Solutions

#### 5 Phases of 6 Sigma Method

- 1. Define**
  - Target population: NH residents enrolled by GeriCare who died in 2022 and 2023 (NH decedent)
  - Key issue: Supporting residents to die outside of acute hospital (i.e. in NHs or own homes according to their preferences)
- 2. Measure**
  - % in-hospital deaths of enrolled decedents
  - PPOD concordance of enrolled decedents
  - Hospital admission and length of stay per decedent
- 3. Analyse**
  - Root causes: 1) Lack of structure in identifying residents nearing their EOL, 2) Insufficient capacity to discuss EOL preferences & advance care plans (ACPs)
- 4. Improve**
  - Created an EOL screening tool & implemented it across all partner NHs
  - Trained more ACP facilitators to enable more ACP discussions for enrolled residents
- 5. Control**
  - Provide training to NH staff on the use of EOL screening tool & facilitate ACP discussions
  - Leverage on data to measure and evaluate progress and changes
  - Build relationships to fortify close collaborations with the NHs
  - Engage NH ground staff and nursing management to ensure stakeholder alignment

### Outcomes & Impacts

**Table 1. Percentage Place of Death (POD)**

	No. of decedents	% POD (Hospital)
CY2022	102	59%
CY2023 (up to Sep'23)	112	50% (↓9%)

**Table 2. Percentage ACP completion & PPOD concordance**

	No. of decedents	% ACP completion	% PPOD (NH) concordance
CY2022	102	57%	57%
CY2023 (up to Sep'23)	112	76% (↑19%)	76% (↑19%)

**Table 3. Impact on hospital admissions, length of stay (LOS) and healthcare utilization cost per decedent**

	Admission (mean)	LOS (median)	Healthcare utilization cost*/ decedent
CY2022	1.85	9	\$17,350.44
CY2023 (up to Sep'23)	1.65 (↓11%)	7 (↓2)	\$12,070.10 (↓\$5,280.34)

\*Norm cost used for acute utilization: \$1,042.60 (Average cost per inpatient bed day for B2 ward)

From Jan to Sep 2023, there was a reduction in hospital admissions & a shorter LOS, which resulted in a **cost savings of \$5,280.34 per decedent.**