

# How much palliative care is delivered at the end-of-life? : A population-level observational study in Ontario

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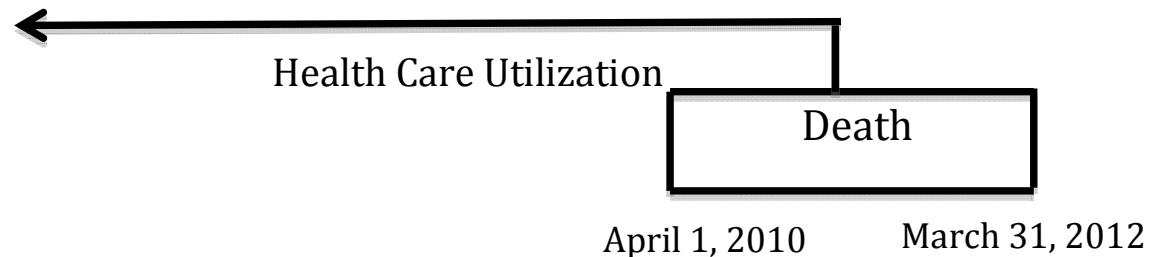
# Introduction



- Analysis for Central East LHIN on behalf of Declaration of Partnership and Commitment to Action – Hospice & Palliative Care
- Objectives:
  - Determine whether health admin data can be used to identify palliative care delivery
  - Describe distribution of palliative care utilization across Ontario's health sectors (LTC, home care, rehab, CCC)
  - Measure regional and sub-regional differences

# Methods

## Retrospective approach



- Data source: Registered Persons Database (RPDB)
- From date of death, looked back 12 months

# Sample Palliative Care Codes

| Sector                  | Database & Codes  |
|-------------------------|---|
| Physician Services      | OHIP: K023, A945, G512, B966, K700  |
| Inpatient Hospital      | DAD ICD 10 Codes: Z51.5<br>NACRS Provider Service Code: 00121                         |
| Home Care               | HCD: SRC admission, service, or discharge 95<br>RAI-HC: P2S = 1 or 2; RAI-CA: B2c, B4 |
| Long-term Care          | OHIP code W872, K023  |
| Complex Continuing Care | OHIP code W882, K023  |

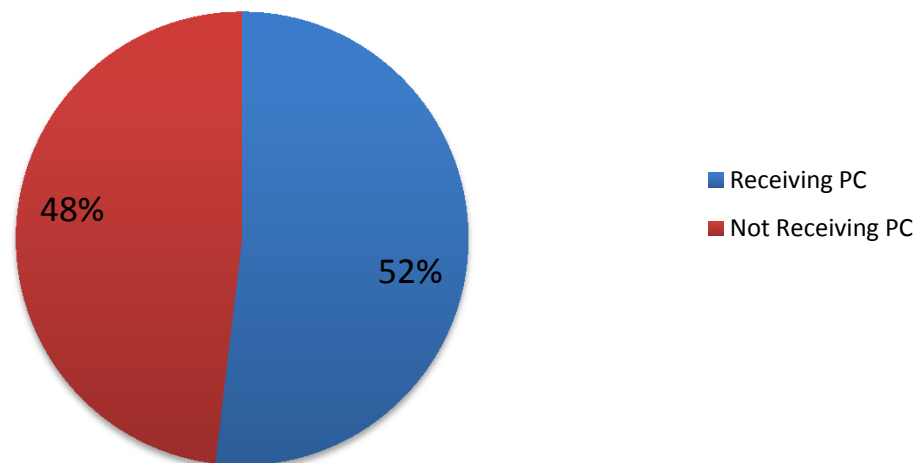
# Data availability

| <b>CIHI Database Available*</b>                   | <b>Provinces/Territories Available**</b>   |
|---|--|
| Discharge Abstract Database (DAD)                 | All provinces and Territories except Quebec  |
| Continuing Care Reporting System (CCRS)           | Yukon, British Columbia, Saskatchewan, Manitoba <sup>+</sup> , Ontario <sup>+</sup> , Nova Scotia, Newfoundland and Labrador.<br><sup>+</sup> provinces reporting data for complex continuing care |
| Home Care Reporting System (HCRS)                 | Yukon, British Columbia, Manitoba, Ontario, Nova Scotia  |
| National Ambulatory Care Reporting System (NACRS) | Mainly Ontario and Alberta, with minor representation from Manitoba and Nova Scotia  |

# Results

- 1) How many decedents (n=177,817) are receiving palliative care in last year of life?

Percentage of Total Decedent Cohort Receiving and Not Receiving Palliative Care



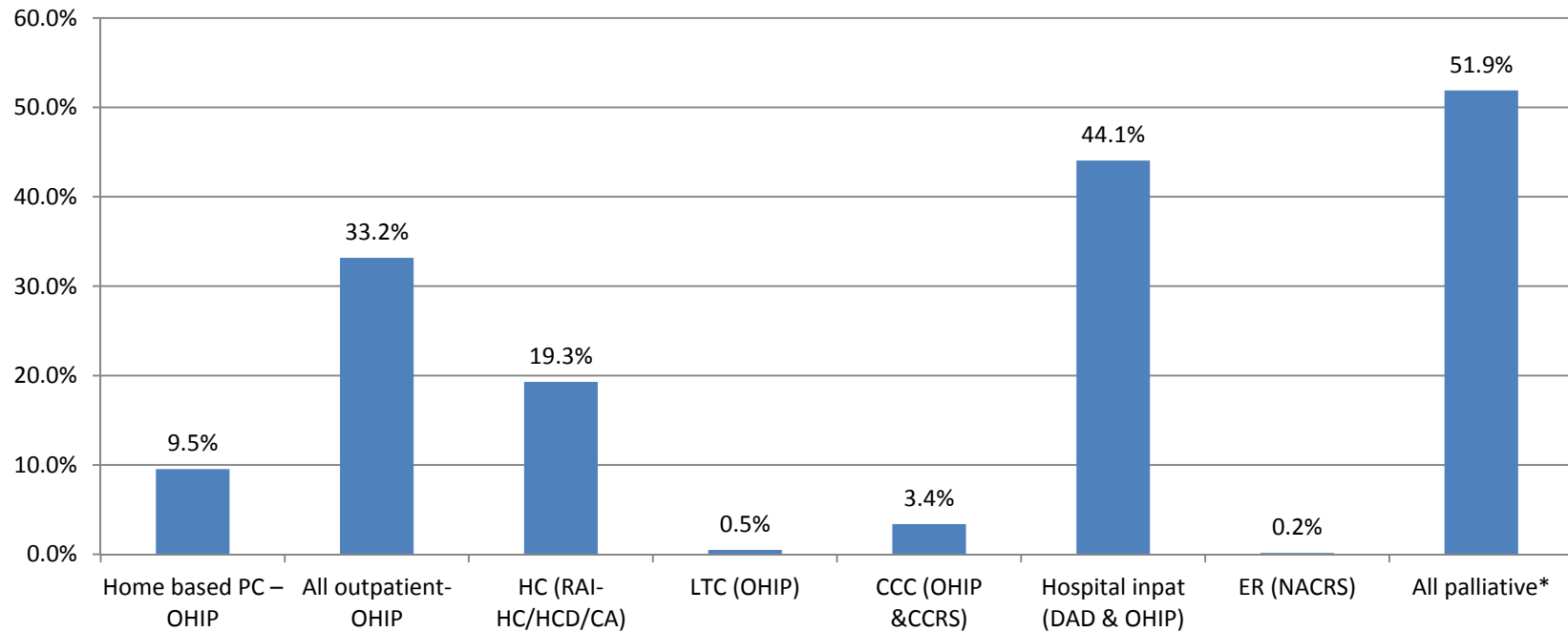
# Who's receiving Palliative Care?

**Table 2:** Socio-demographic characteristics of decedent cohort who received at least 1 palliative service in the last year of life

| Characteristic      | No. (%) of decedents          |                                  |                    |
|---------------------|-------------------------------|----------------------------------|--------------------|
|                     | Palliative Care<br>n = 92,276 | No Palliative Care<br>n = 85,541 | All<br>n = 177,817 |
| Female              | 47,187 (52.6%)                | 42,553 (47.4%)                   | 89,740             |
| Male                | 45,089 (51.2%)                | 42,988 (48.8%)                   | 88,077             |
| Age, yr             |                               |                                  |                    |
| <19                 | 337 (12.3%)                   | 2,414 (87.7%)                    | 2,751              |
| 19-44               | 1,568 (28.4%)                 | 3,948 (71.6%)                    | 5,516              |
| 45-54               | 4,497 (47.5%)                 | 4,962 (52.5%)                    | 9,459              |
| 55-64               | 10,469 (56.6%)                | 8,036 (43.4%)                    | 18,505             |
| 65-74               | 16,731 (59.6%)                | 11,364 (40.4%)                   | 28,095             |
| 75-84               | 27,636 (56.4%)                | 21,372 (43.6%)                   | 49,008             |
| 85-94               | 26,157 (49.4%)                | 26,789 (50.6%)                   | 52,946             |
| 95 +                | 4,881 (42.3%)                 | 6,656 (57.7%)                    | 11,537             |
| Neighborhood Income |                               |                                  |                    |
| Quintile 1 (Q1)     | 20,484 (50.3%)                | 20,226 (49.7%)                   | 40,710             |
| Q2                  | 19,450 (53.0%)                | 17,270 (47.0%)                   | 36,720             |
| Q3                  | 17,593 (52.2%)                | 16,110 (47.8%)                   | 33,703             |
| Q4                  | 17,449 (53.1%)                | 15,423 (46.9%)                   | 32,872             |
| Q5                  | 16,734 (54.4%)                | 14,033 (45.6%)                   | 30,767             |
| Rurality            |                               |                                  |                    |
| Urban               | 79,538 (53.1%)                | 70,183 (46.9%)                   | 149,721            |
| Rural               | 12,527 (48.4%)                | 13,371 (51.6%)                   | 25,898             |

# Where is palliative care being provided?

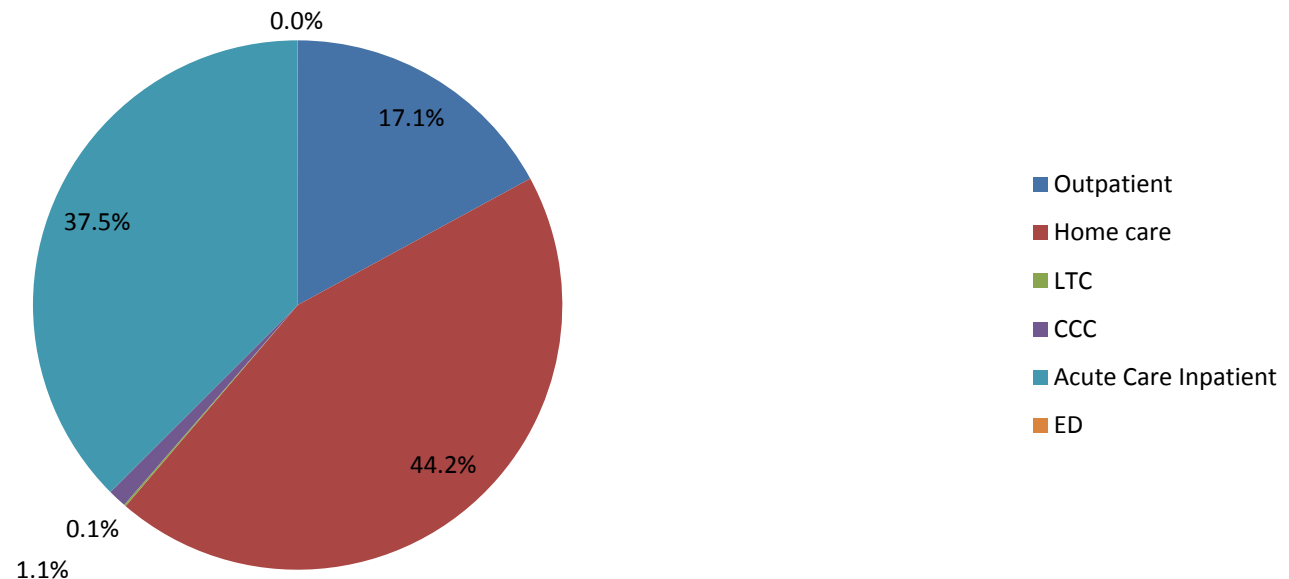
**Proportion of Decedents Captured as Receiving Palliative Care, by Sector**





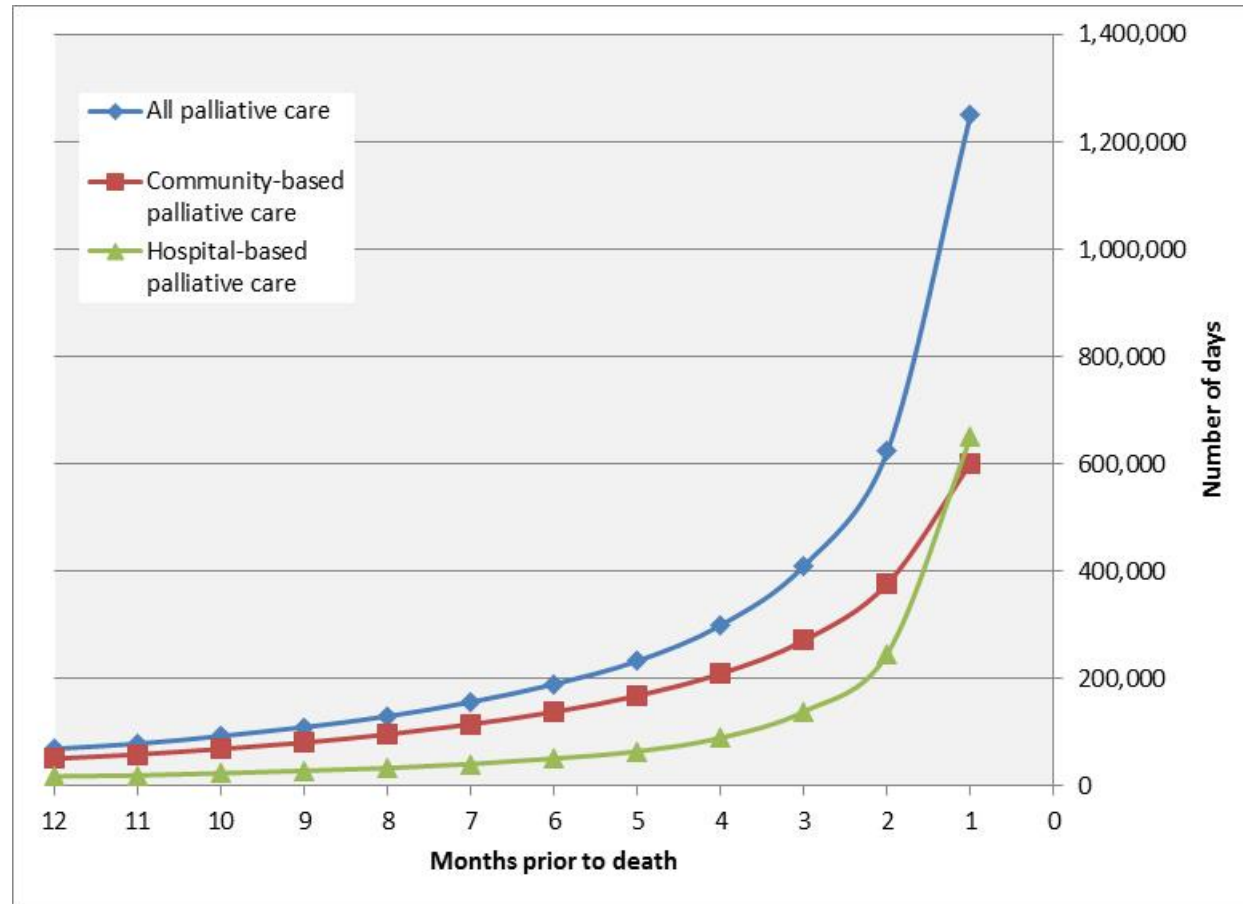
# Total Days of PC Delivered by Sector

**Proportion of total days of palliative care delivered to all decedents in the last year of life by health sector, Ontario, FY 2010/11-FY 2011/12**



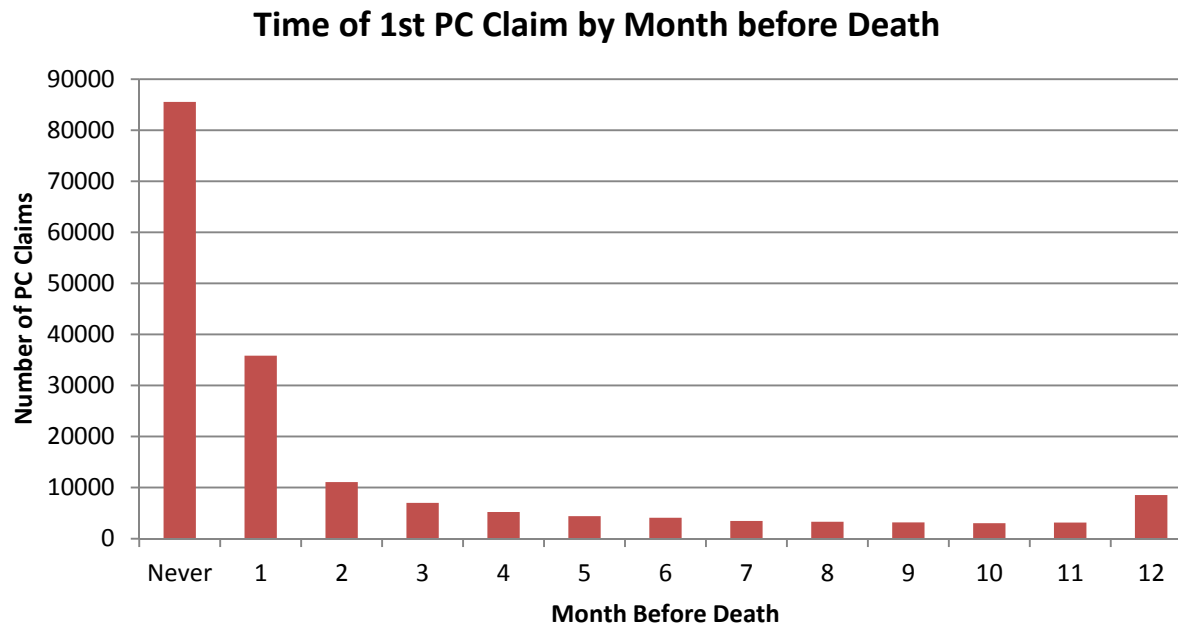
- Home care & inpatient acute care: most days: 44.2% and 37.5%, respectively
- Physician based outpatient palliative care days were next at 17.1%,
- CCC, ER: an insignificant proportion.

# Timing of Palliative Care



- About half (49.1%) of all days of palliative care delivered was performed in the last 2 months prior to death.

# Initiation of PC



- 38.8% initiated in last month
- 50.8% initiated in last 2 months

# Overall health care cost

- Palliative vs. no palliative care cohorts

| <b>Palliative Care Initiation<br/>(Prior to Death)</b> | <b>Decedents (n)</b> | <b>Average Cost</b> |
|--|----------------------|---------------------|
| 0 – 7 days   | 16,422               | \$38,570            |
| 8 – 30 days  | 19,949               | \$45,692            |
| 31 – 60 days   | 10,847               | \$52,292            |
| 61 – 90 days   | 6,886                | \$58,513            |
| 91 – 180 days  | 13,636               | \$66,074            |
| 181 – 360 days   | 24,536               | \$76,739            |
| <b>All Palliative Care</b>                             | <b>92,276</b>        | <b>\$57,424</b>     |
| <b>No Palliative Care</b>                              | <b>83,199</b>        | <b>\$44,023</b>     |

# Use and Cost of PC Patients

- Higher Cost: Driven largely by Hospitalizations
- Difficult to interpret
  - Hospital costs dominate palliative care costs
  - Palliative care being identified in hospital → inflation of cost from ID method?
  - E.g., 2 similar patients near EOL → person who ends up in hospital (and thus has higher costs) = person who has higher chance of being ID'ed as being palliative

# Discussion

- Use palliative care codes with caution
- Future studies should focus on sector specific palliative care – emphasis on community care
- What we envision as home based PC:
  - Only 9.5% receive home visit by physician
  - Only 19.3% receive “palliative” home care

# Discussion

- Underservice vs. underreporting?
  - Still...less than 1 in 5 (19.1%) of decedents will get a visit in the last year of life
- Rule of 50's (approximately):
  - 50% decedents get PC
  - 50% of PC days delivered in last 50 days
  - 50% of PC initiated within 50 days of death

# Conclusions

- Much of EOL care still occurs in hospital – including palliative care
- Room for improvement
- Majority of population prefers to die at home; but majority die in institutions
  - Palliative home care & physician home visits can help bridge this gap for the population
- Addressing barriers → potential large gain





# THE END

## QUESTIONS?