

# Is HOME Best for All?

## ASSESSING INTENDED AND UNINTENDED CONSEQUENCES OF AGING IN PLACE POLICIES



CAG Webinar Series  
2019/2020

Dec 05, 2019

Matthias Hoben  
RN, Dr rer medic  
Heath & Nursing Sciences



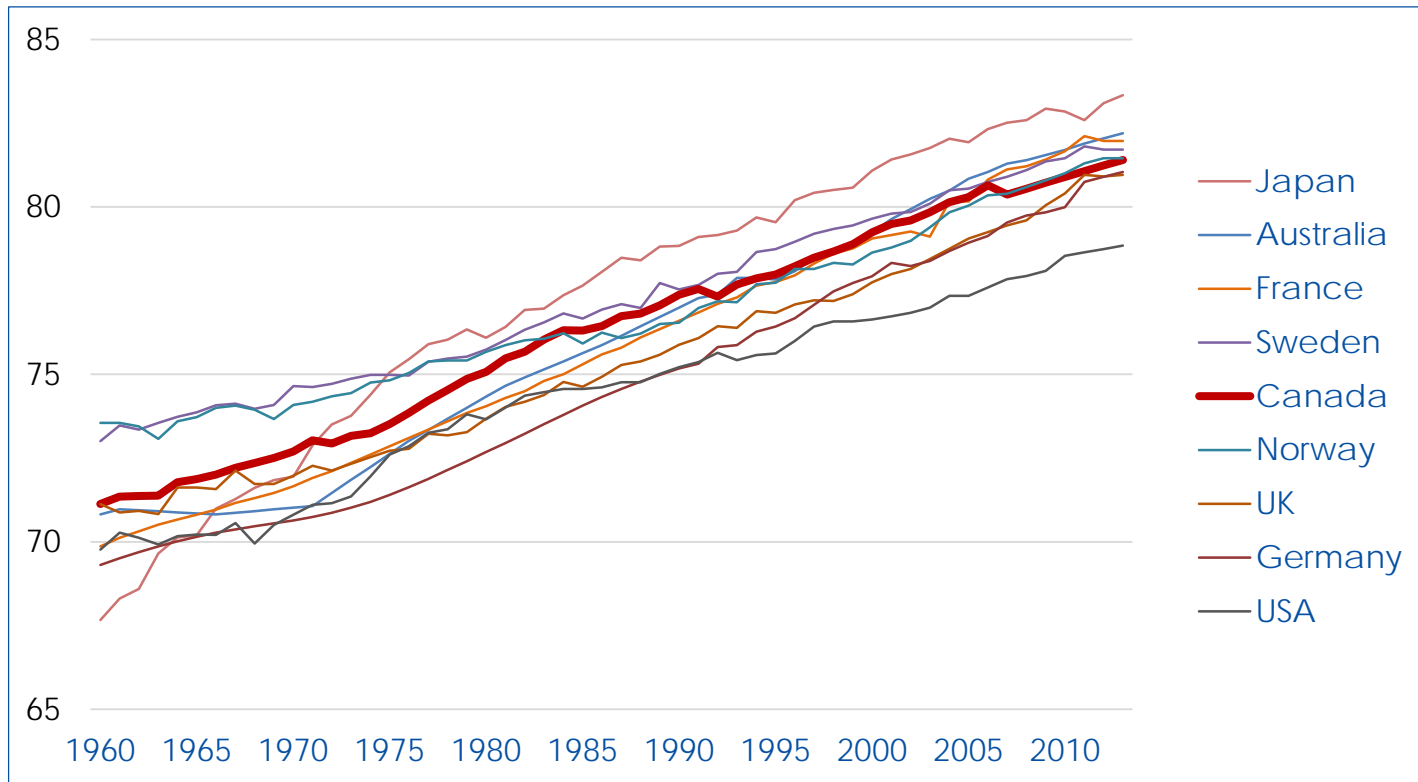
**UNIVERSITY OF ALBERTA**  
**FACULTY OF NURSING**

*“uplifting the whole people”*

— HENRY MARSHALL TORY, FOUNDING PRESIDENT, 1908

# POPULATION AGING IN CANADA

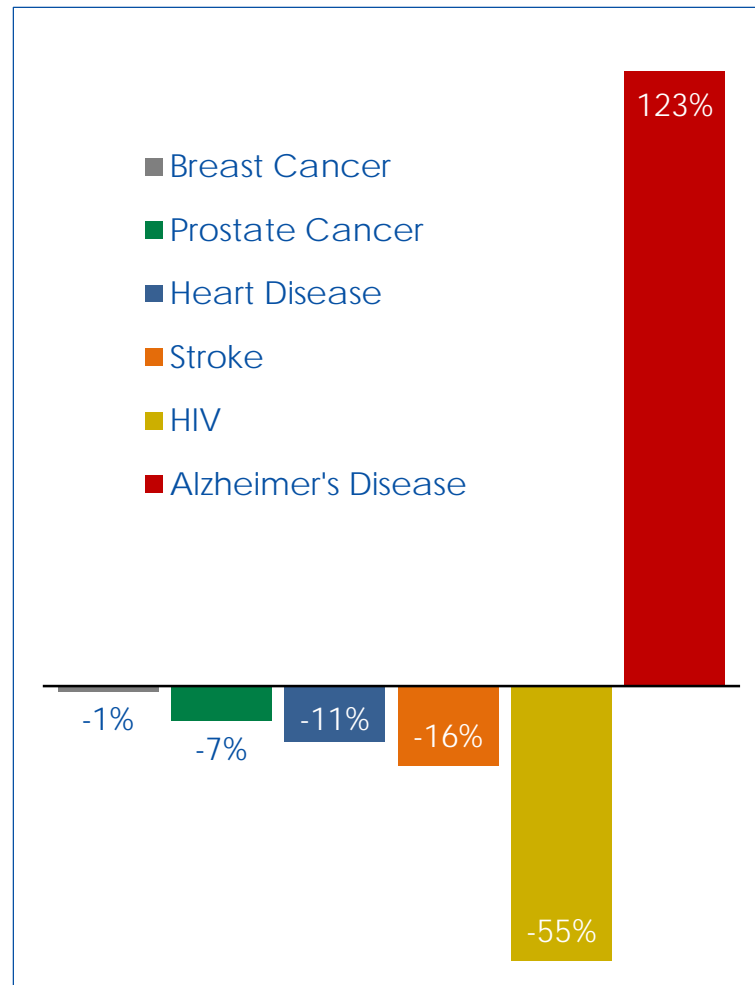
Life expectancy in years by year of birth  
and selected developed countries



The World Bank (2015)  
([http://data.worldbank.org/indicator/SP.DYN.LE00.IN?cid=GPD\\_10](http://data.worldbank.org/indicator/SP.DYN.LE00.IN?cid=GPD_10))



# DEMENTIA ON THE RISE



2018 Alzheimer's Disease Facts and Figures

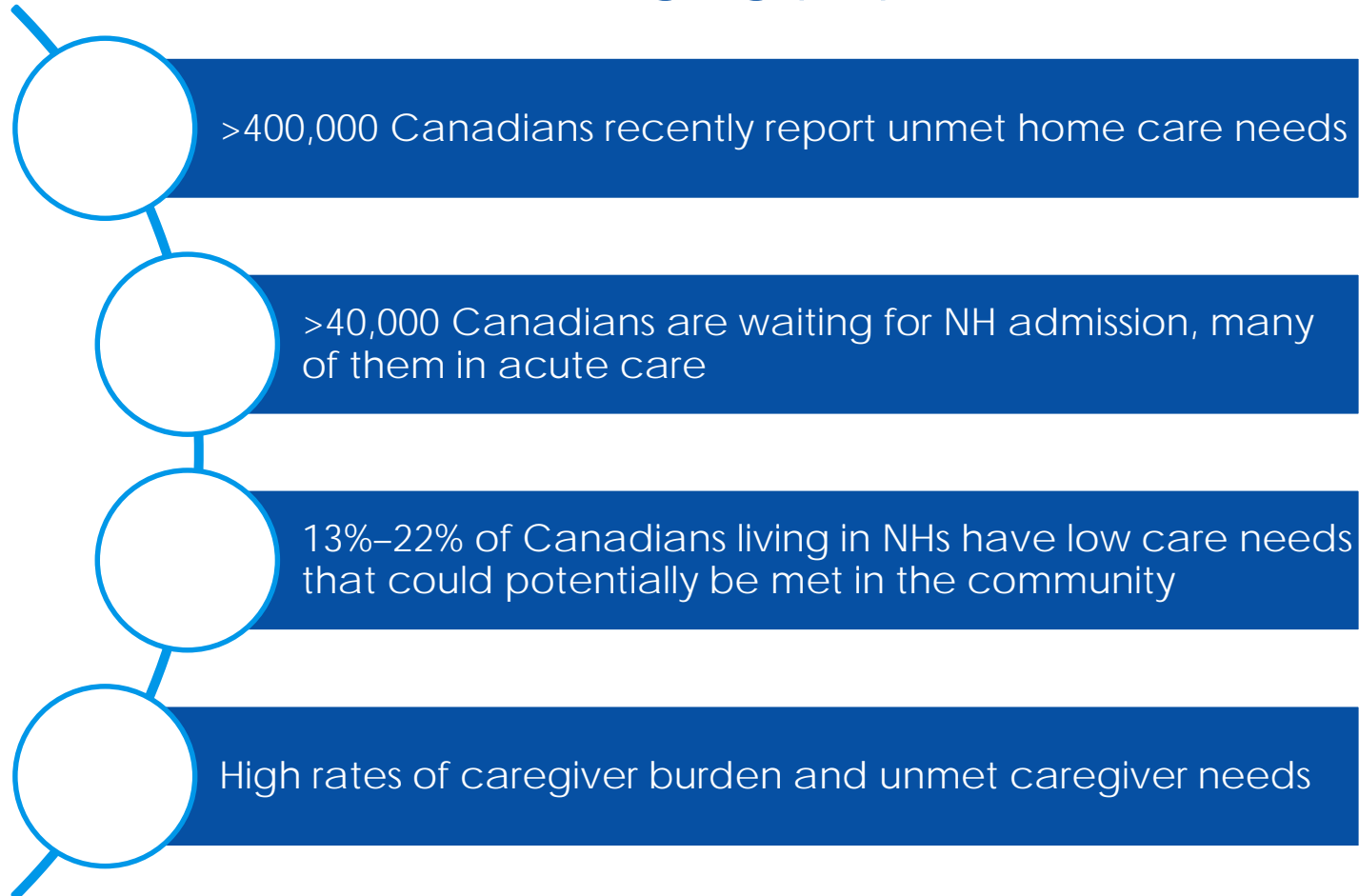


# SOME FACTS



## SOME FACTS

Canada is struggling to meet the needs of its aging population



## SOME FACTS



2019

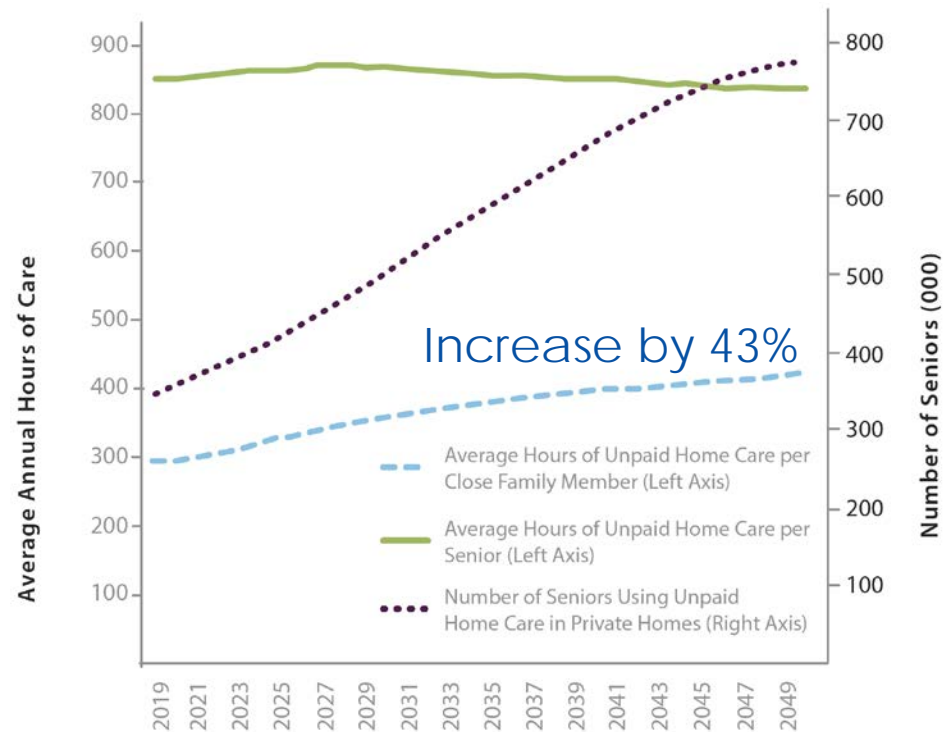
763,735 to 1,256,575  
Canadians age 65+  
(13%-21%) receive LTC



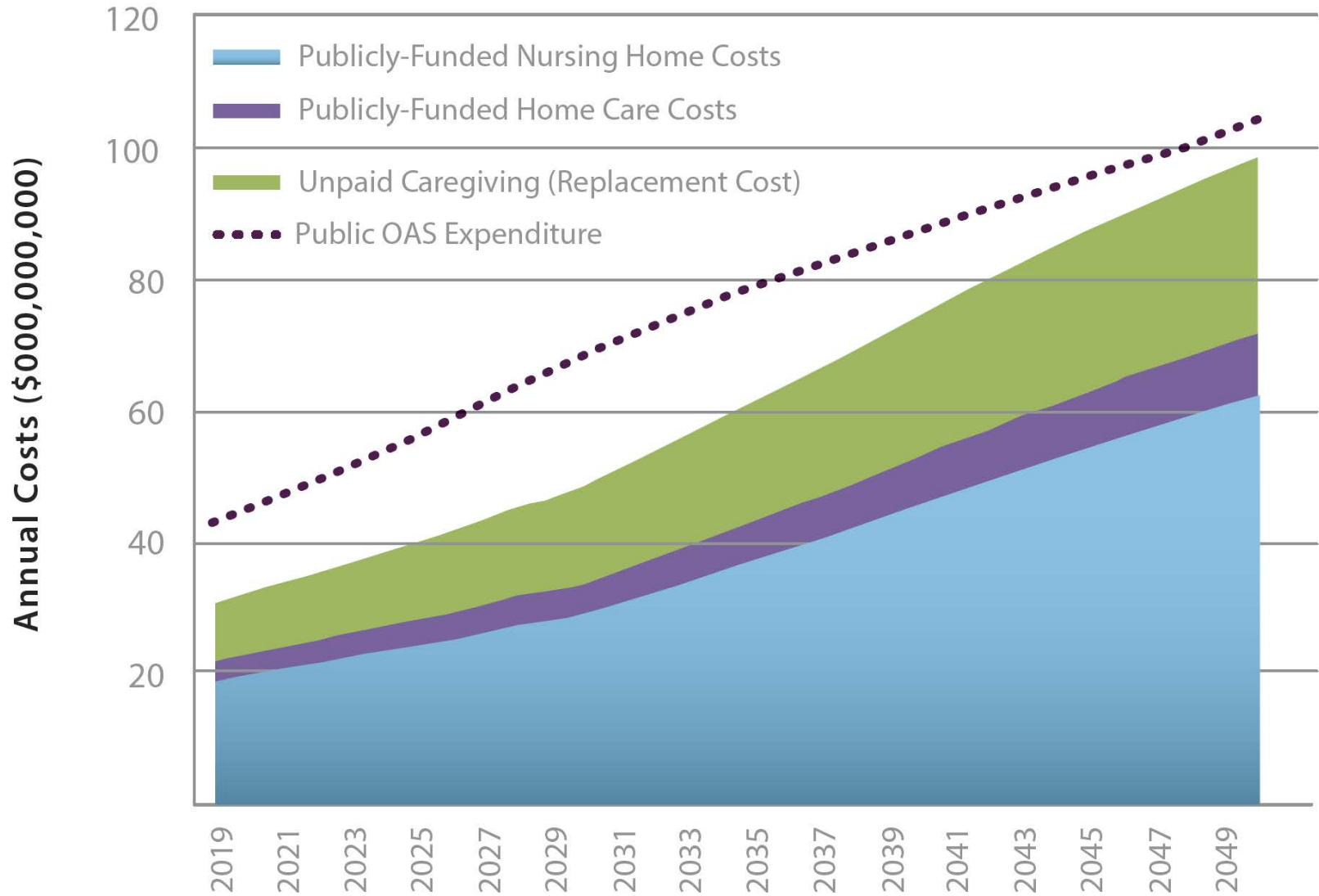
2050

Will increase by 75%

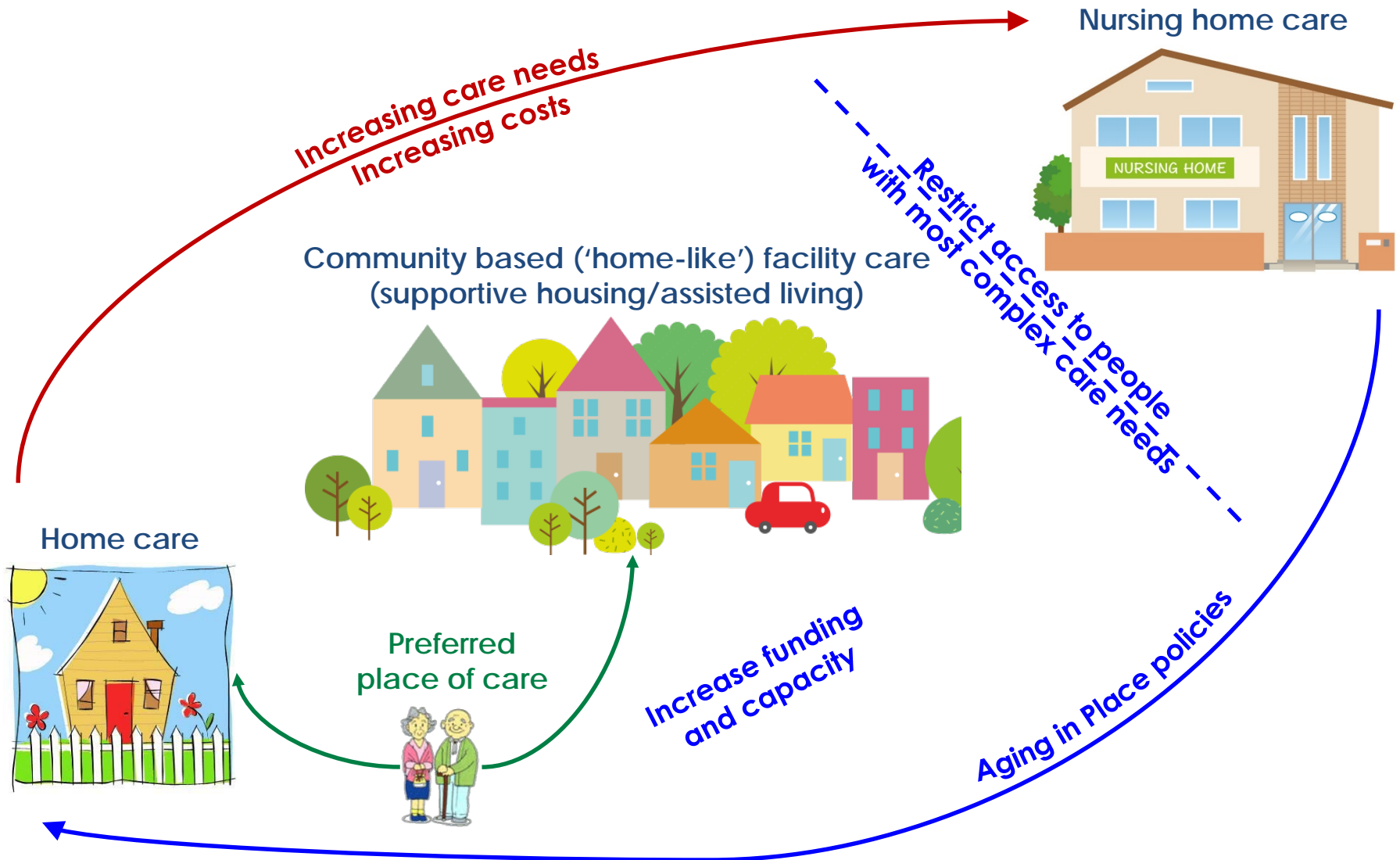
Decrease in potential  
family/friend caregivers  
(fewer adult children,  
higher divorce &  
separation rates, lower  
marriage rates)



## SOME FACTS



# SHIFT FROM NH CARE TO COMMUNITY CARE





# SHIFT FROM NH CARE TO COMMUNITY CARE

Increasing care needs

g home care



Do aging in place policies have the intended effects (i.e., admitting increasingly more complex residents, reducing NH length of stay, reducing costs to the system, etc.)?

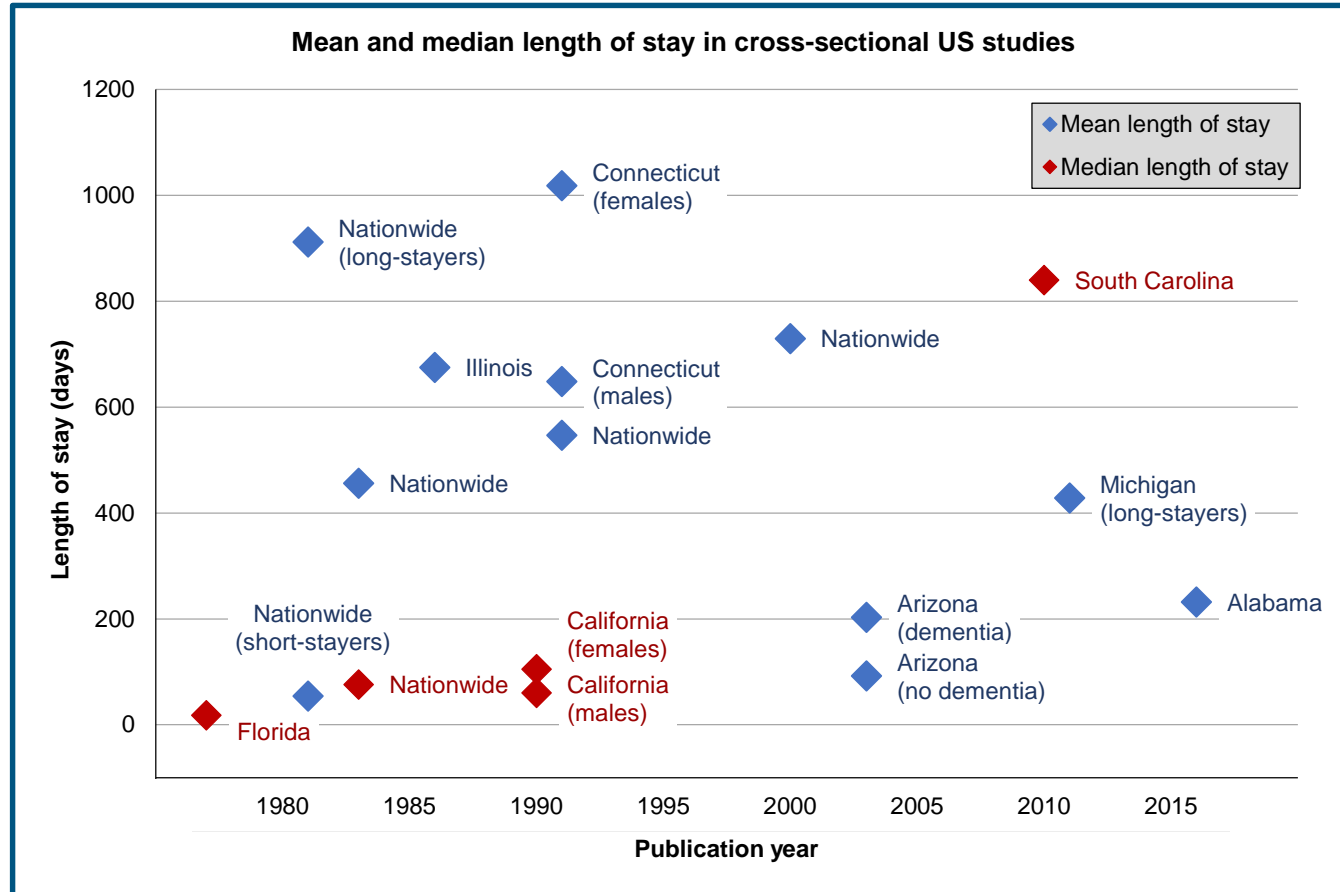
Are there unintended consequences of aging in place policies?

Home



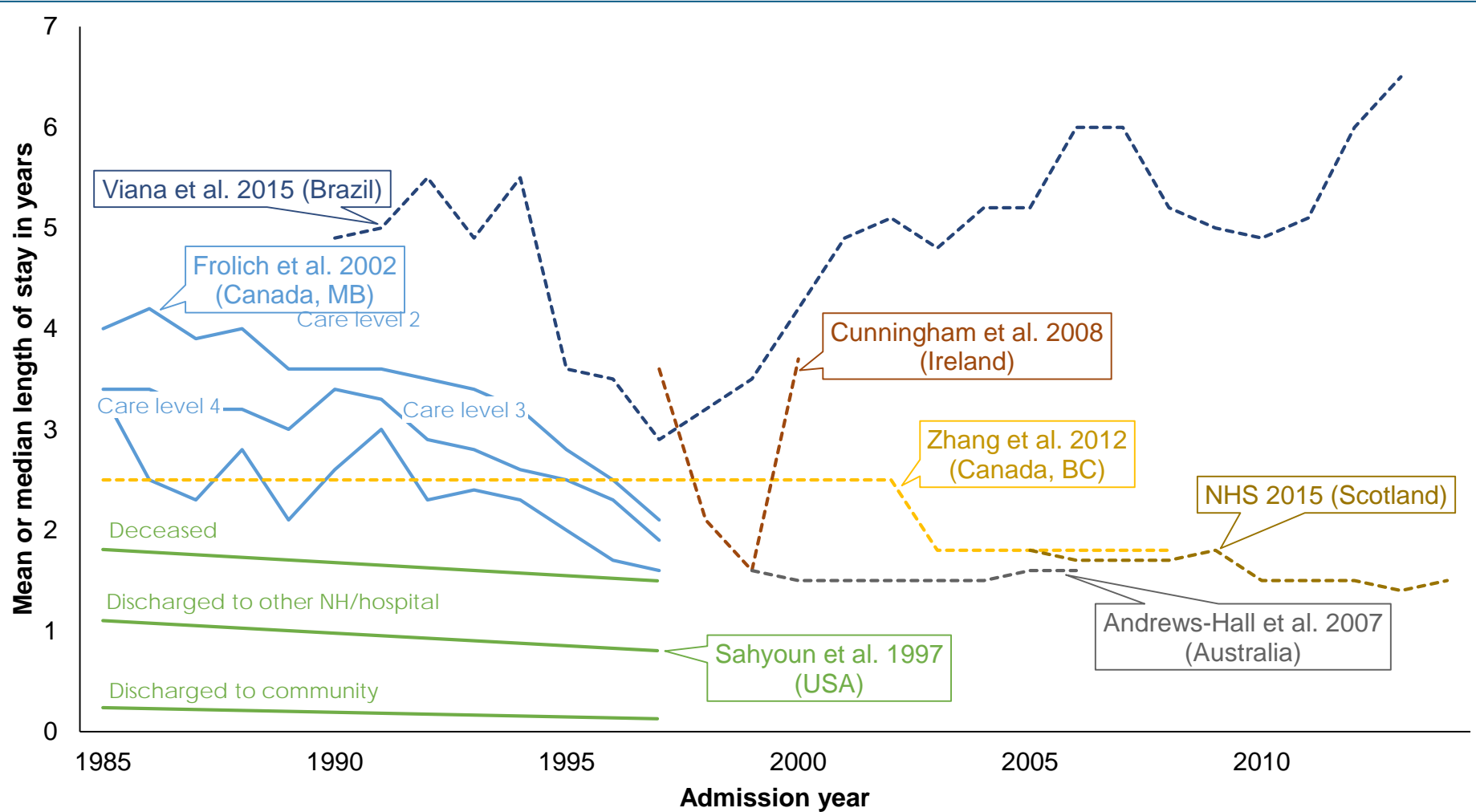
Aging in Place P

# INTERNATIONAL LITERATURE ON NURSING HOME LENGTH OF STAY (LOS) LIMITED



- Found 166 international references (61 from the US, 6 from Canada) reporting on either LoS or mortality rates in NHs
- Rates are all over the place
- Mostly cross-sectional studies
- Definitions of LoS and methods used vary widely

# LONGITUDINAL STUDIES DON'T ALLOW CLEAR CONCLUSIONS EITHER



Solid lines = Average LoS; dashed lines = median LoS

# RESEARCH OBJECTIVES



Assess change in NH LoS over time (i.e., by residents' year of admission) and by health region (Calgary, Edmonton, Winnipeg)



Identify resident admission characteristics that – controlling for facility characteristics – are associated with LoS



Compare resident admission characteristics by health region and year of admission

# TRANSLATING RESEARCH IN ELDER CARE

TREC's aims:

To develop practical, evidence informed solutions that contribute to sustainable improvements in quality of care, quality of life, quality of end of life for frail, vulnerable nursing home residents, and quality of work life for the staff who care for them in nursing homes



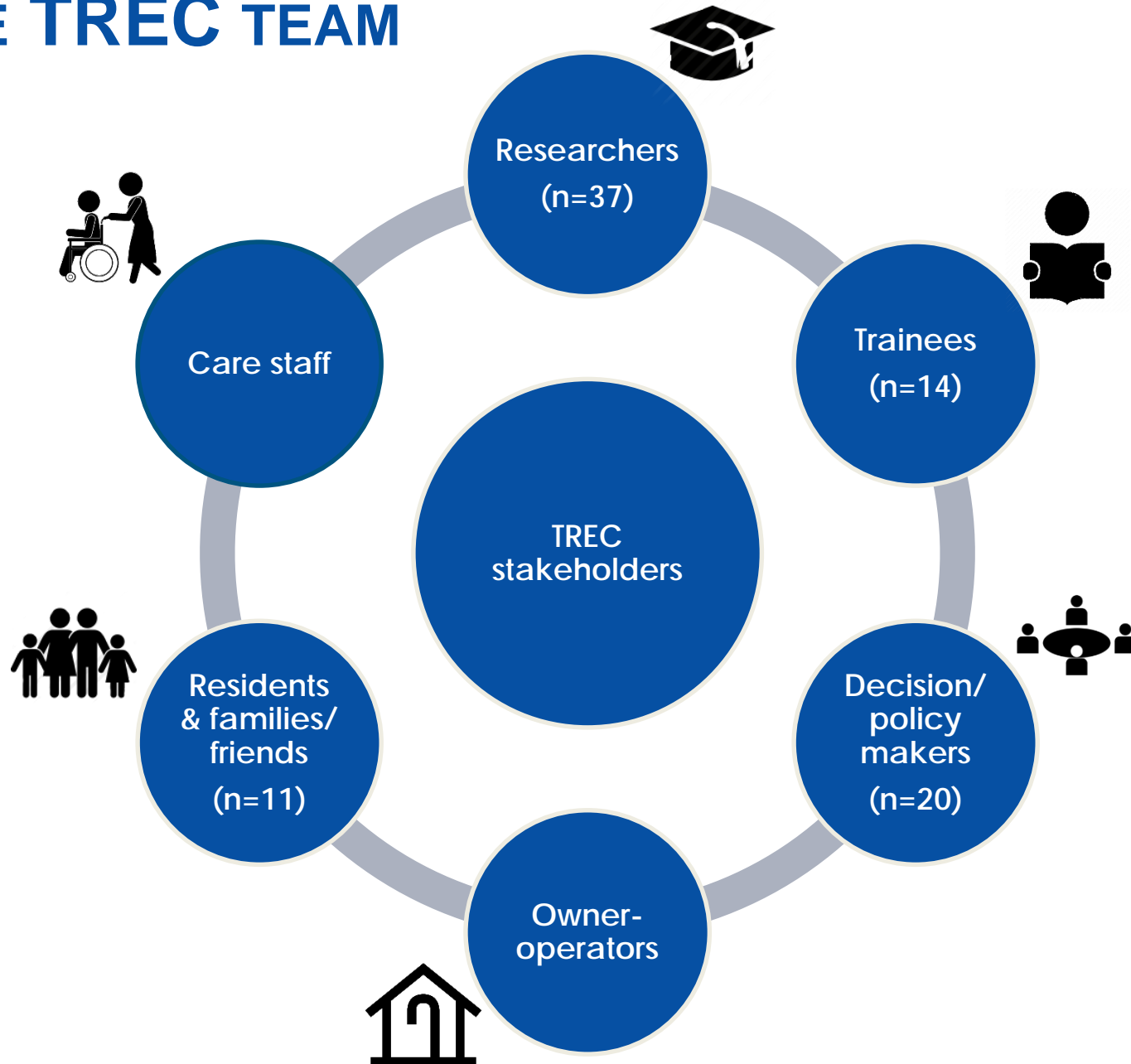
# The TREC Scientific Director



***Carole A. Estabrooks, CM, PhD, RN, FCHAS, FAAN is the Scientific Director (SD) of TREC. She is Professor, Faculty of Nursing, at the University of Alberta, Edmonton, Alberta, Canada, and holds a Tier 1 Canada Research Chair in Knowledge Translation.***

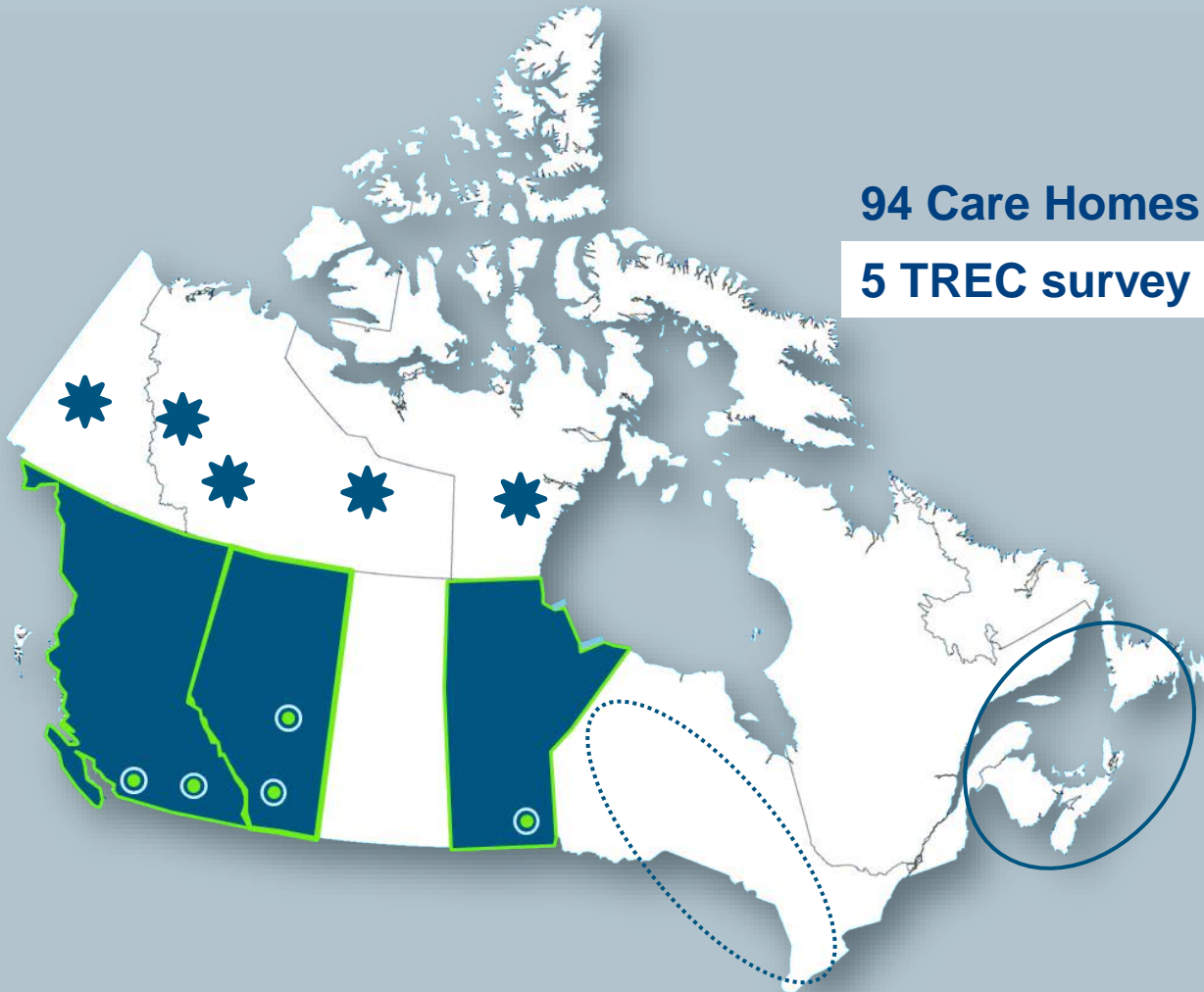
*Dr Estabrooks' program of research focuses on knowledge translation in the health sciences; she studies the influence of organizations on research implementation and quality improvement initiatives and the effect of those on patient/resident, care provider and system outcomes. Her work is situated primarily in residential long term care settings.*

# THE TREC TEAM



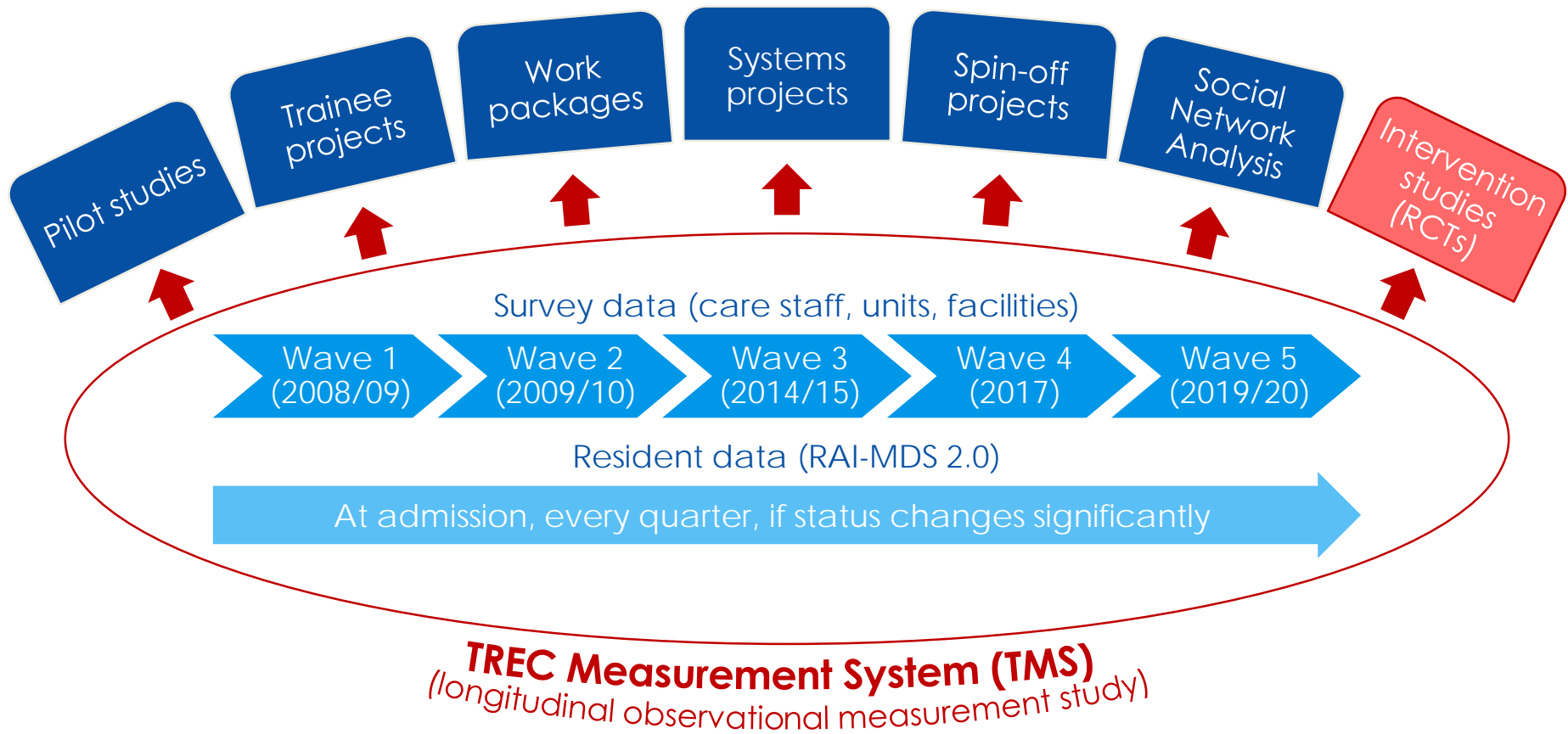
**94 Care Homes**

**5 TREC survey Regions**





# THE TREC PROGRAM



**TREC 1 (2007–2012)**

36 facilities  
(AB, MB, SK)

**TREC 2 (2012–2018)**

91 facilities (wave 3)  
94 facilities (wave 4)  
(AB, BC, MB)

**Transition period  
(2018–2020)**

**TREC 3  
(TBD)**

# TMS DATA SOURCES



## Facility level

Facility Profile Form

(current facilities = 94)



## Unit level

- Unit Profile Form
- Unit Reconciliation  
(**microsystem structure**)

(Current units = 300+)



## Care provider level

**TREC Survey** (versions for **care aides**, nurses, allied health providers, clinical specialists, managers)

- **Alberta Context Tool**
- Best practice use
- Staff health (SF-8)
- Staff wellbeing (e.g., job satisfaction, burnout, engagement, empowerment, etc.)
- Demographics



## Resident level

**Resident Assessment Instrument – Minimum Data Set 2.0**

(Including care unit identifier!)

**Aggregation**

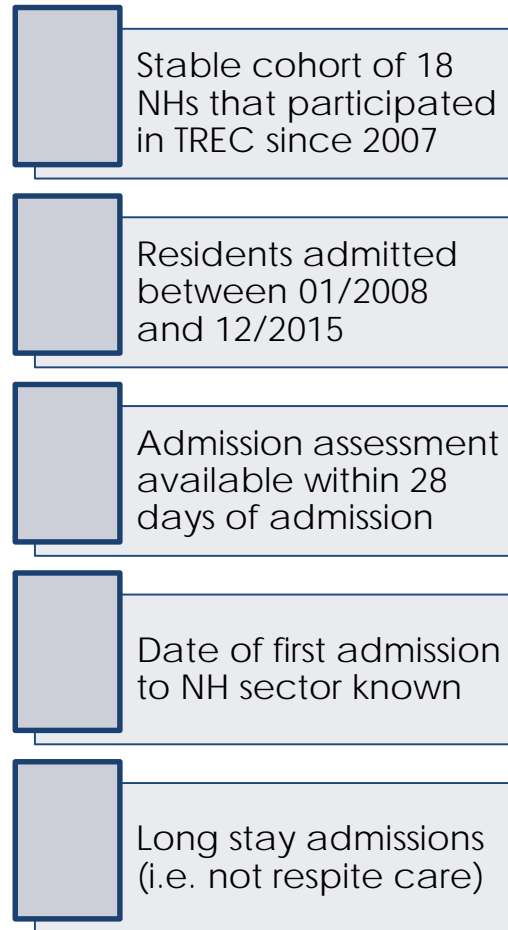


# TREC DATA HOLDINGS TO DATE

|                                    | Waves 1 & 2<br>(2008–2010) | Wave 3<br>(2014/15) | Wave 4<br>(2017) |
|------------------------------------|----------------------------|---------------------|------------------|
| <b>Facility/Care Unit Surveys</b>  |                            |                     |                  |
| Facility                           | 36                         | 91                  | 94               |
| Care unit                          | 103                        | 336                 | 339              |
| <b>Care Staff Surveys</b>          |                            |                     |                  |
| Care aide                          | 2,995                      | 4,065               | 4,158            |
| Nurse                              | 585                        | 767                 | 948              |
| Allied health provider             | 264                        | 338                 | 569              |
| Clinical specialist                | 45                         | 57                  | 80               |
| Manager                            | 124                        | 168                 | 193              |
| Physician                          | 25                         | —                   | —                |
| <b>Resident Data (RAI-MDS 2.0)</b> |                            |                     |                  |
| Records (with unit identifier)     | > 500,000 across all waves |                     |                  |
| Residents                          | > 55,000 across all waves  |                     |                  |



# RESEARCH METHODS



7,817 residents from the Edmonton and Calgary Health Zones and from the Winnipeg Regional Health Authority

Unadjusted LoS  
(Kaplan Meier analyses)



Predictors of LoS  
(Cox reg.)



Adjusted LoS  
(Cox reg.)



Change in admission characteristics  
(run charts)



JAMDA

journal homepage: [www.jamda.com](http://www.jamda.com)

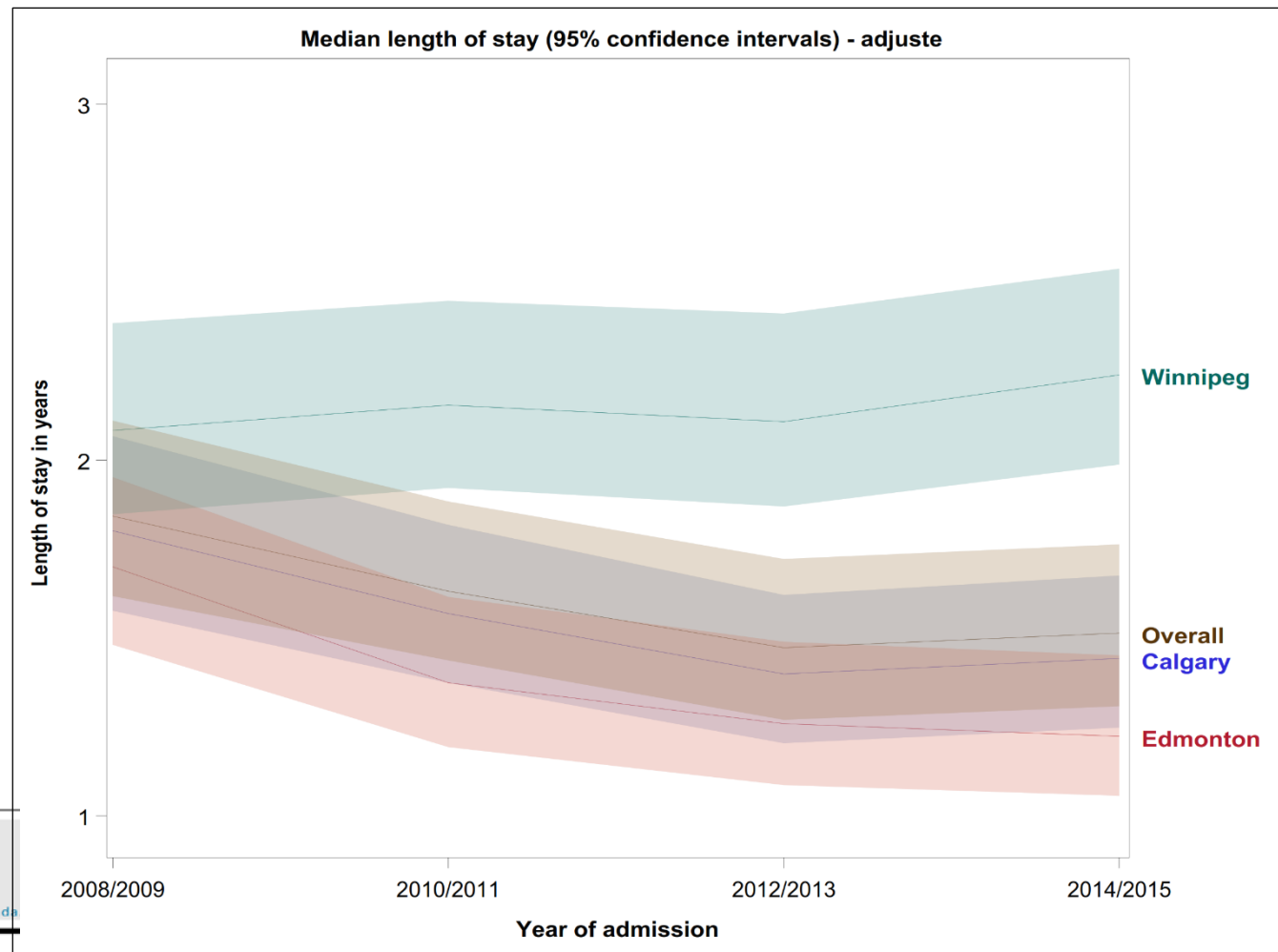


Original Study

Nursing Home Length of Stay in 3 Canadian Health Regions:  
Temporal Trends, Jurisdictional Differences, and Associated Factors

Matthias Hoben Dr rer medic<sup>a,\*</sup>, Stephanie A. Chamberlain MSc<sup>a</sup>,  
Andrea Gruneir PhD<sup>b</sup>, Jennifer A. Knopp-Sihota PhD<sup>a,c</sup>, Jason M. Sutherland PhD<sup>d</sup>,  
Jeffrey W. Poss PhD<sup>e</sup>, Malcolm B. Doupe PhD<sup>f</sup>, Veronica Bergstrom MA<sup>g</sup>,  
Peter G. Norton MD<sup>b</sup>, Corinne Schalm MSc<sup>i</sup>, Kimberley McCarthy MPH<sup>i</sup>,  
Kierstin Kashuba BA<sup>h</sup>, Fred Ackah MSc<sup>h</sup>, Carole A. Estabrooks PhD<sup>a</sup>

# DECREASING LENGTH OF STAY IN HEALTH AUTHORITIES WITH RIGOROUS AGING IN PLACE INITIATIVES



ELSEVIER

JAMDA

journal homepage: [www.jamda.com](http://www.jamda.com)

Original Study

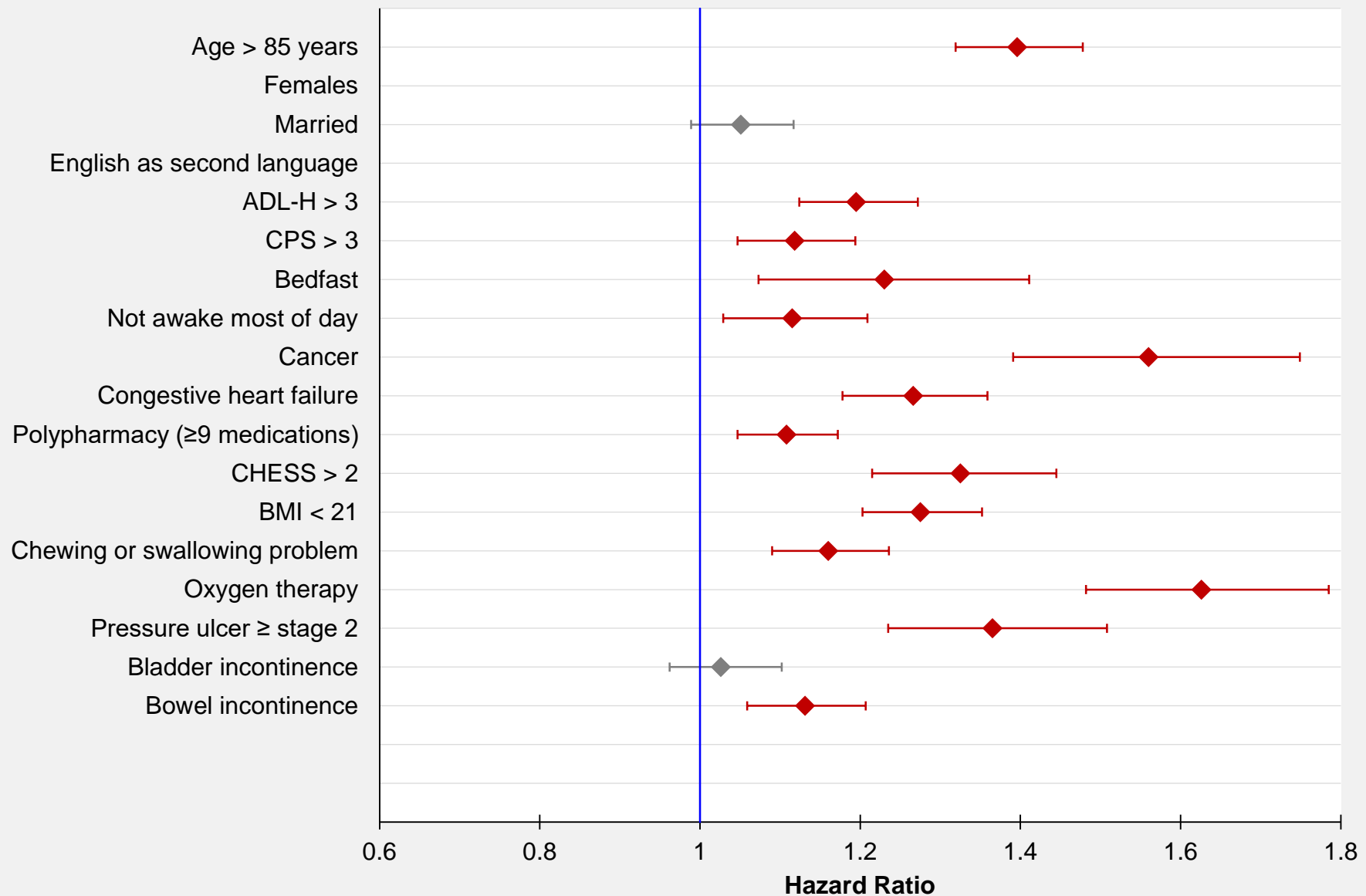
Nursing Home Length of Stay in 3 Canadian Health Regions:  
Temporal Trends, Jurisdictional Differences, and Associated Factors

Matthias Hoben Dr rer medic<sup>a,\*</sup>, Stephanie A. Chamberlain MSc<sup>a</sup>,  
Andrea Gruneir PhD<sup>b</sup>, Jennifer A. Knopp-Sihota PhD<sup>a,c</sup>, Jason M. Sutherland PhD<sup>d</sup>,  
Jeffrey W. Poss PhD<sup>e</sup>, Malcolm B. Doupe PhD<sup>f</sup>, Veronica Bergstrom MA<sup>g</sup>,  
Peter G. Norton MD<sup>h</sup>, Corinne Schalm MSc<sup>i</sup>, Kimberley McCarthy MPH<sup>i</sup>,  
Kierstin Kashuba BA<sup>i</sup>, Fred Ackah MSc<sup>i</sup>, Carole A. Estabrooks PhD<sup>a</sup>

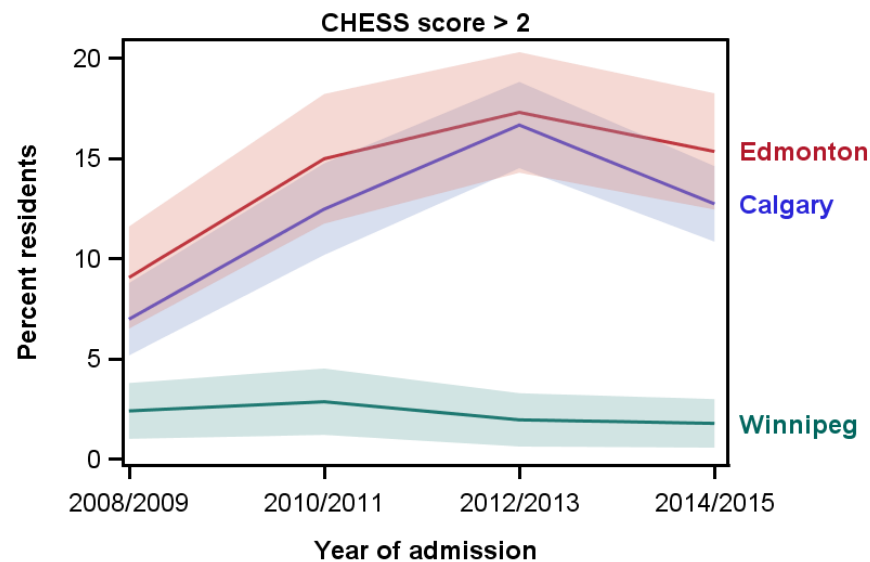
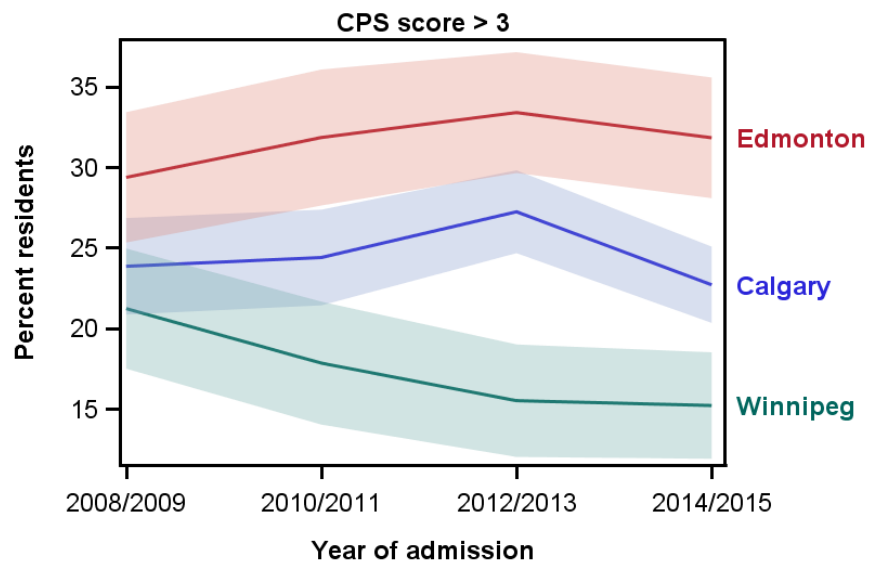
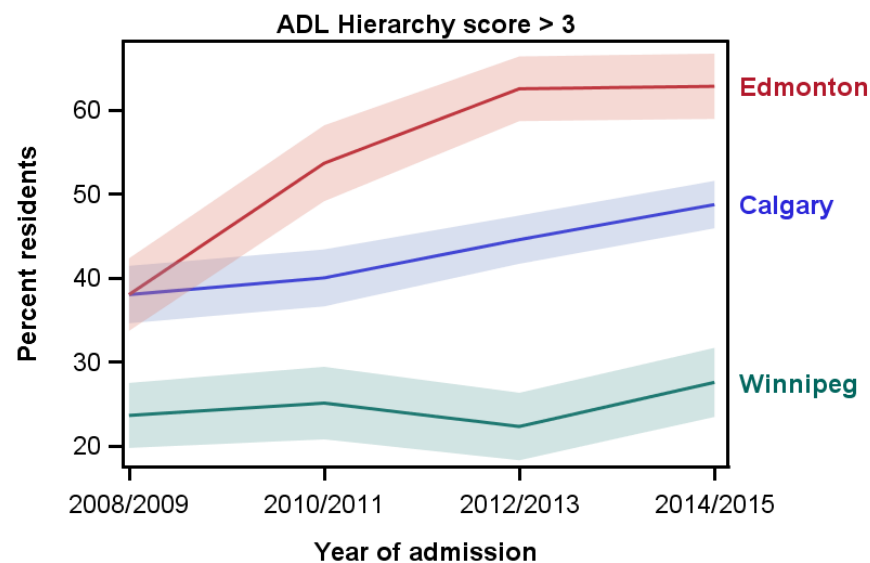
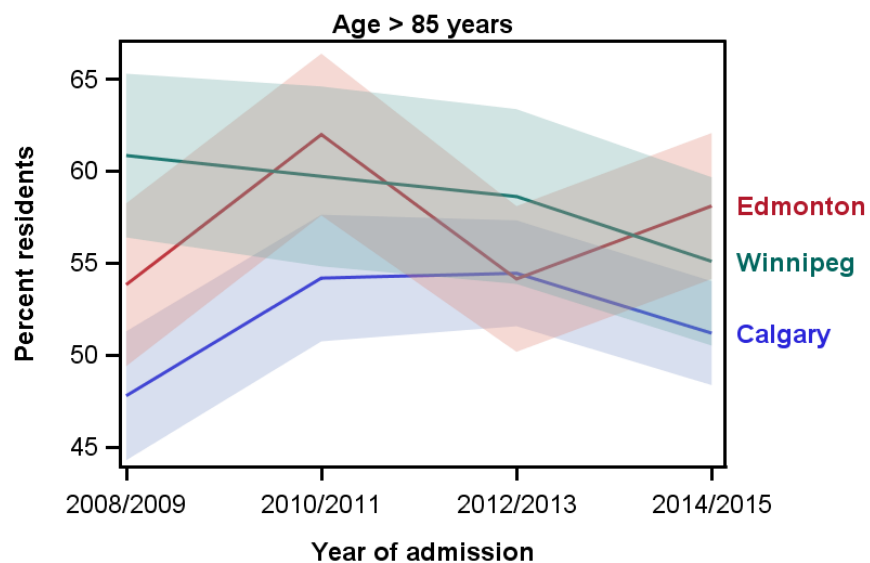
*"uplifting the whole people"*

— HENRY MARSHALL TORY, FOUNDING PRESIDENT, 1908

# RESULTS: FACTORS ASSOCIATED WITH LOS



# CHANGING RESIDENT CHARACTERISTICS AT ADMISSION



# IMPACT ON LONG TERM CARE?

## About a Nurse



*“Yesterday you said your shift was boring. Well, today will be a little different.”*





# VERY LIMITED EVIDENCE ON EFFECTS OF AGING IN PLACE POLICIES

## Evidence of what works to support and sustain care at home for people with dementia: a literature review with a systematic approach

[Alison Dawson](#), [Alison Bowes](#) , [Fiona Kelly](#), [Kari Velzke](#) & [Richard Ward](#)

[BMC Geriatrics](#) **15**, Article number: 59 (2015) | [Cite this article](#)

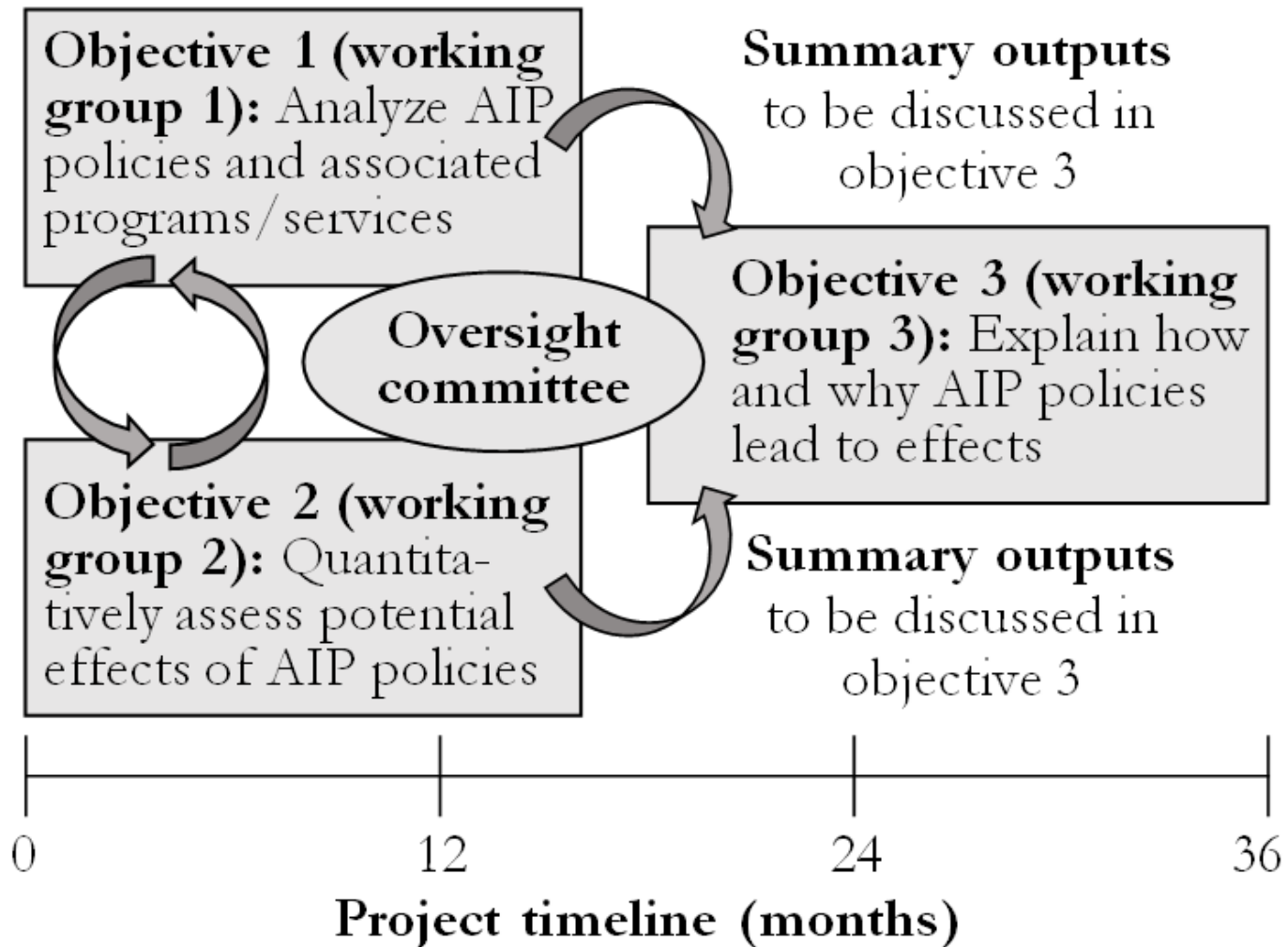
- No effect of single focused interventions
- Complex interventions reduced the risk for NH admission in people with dementia
- Only included RCTs
- No linkage to policies

- Poorly designed and overly narrowly focused studies
- Variability and uncertainty in outcome measurement
- Lack of focus on the perspectives of people with dementia and supporters
- Failure to understanding the complexities of living with dementia, and of the kinds of multifactorial interventions needed to provide holistic and effective support
- Limited evidence policy and practice can use to make decisions

## The evidence for services to avoid or delay residential aged care admission: a systematic review

[Julie A. Luker](#) , [Anthea Worley](#), [Mandy Stanley](#), [Jeric Uy](#), [Amber M. Watt](#) & [Susan L. Hillier](#)

## PROPOSED FUTURE RESEARCH



## PRIORITY AREAS TO FOCUS ON





# THANK YOU



[mhoben@ualberta.ca](mailto:mhoben@ualberta.ca)



UNIVERSITY OF ALBERTA  
FACULTY OF NURSING

*"uplifting the whole people"*

— HENRY MARSHALL TORY, FOUNDING PRESIDENT, 1908