

# PLANNING EXPANDED SCOPE PARAMEDICINE FOR PALLIATIVE CANCER PATIENTS USING POPULATION-BASED LINKED ADMINISTRATIVE DATA

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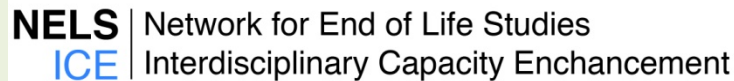
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International Association of Cancer Registries, Ottawa, Canada

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Ottawa, Canada



# Background

Emergency Medical Services (EMS) were frequently called to transport persons who were at the end of life (EOL) from their own home or a nursing home to an Emergency Department (ED)



- ED visits have negative palliative effects
- 70% of palliative persons prefer good care at home
- ED is not designed for optimal palliative support

# Nova Scotia EMS Palliative Support

Nova Scotia EMS researchers developed a palliative care Clinical Practice Guideline\* to:



- Address gaps in community-based palliative services by paramedics providing emergency 24/7 support,
- Better meet patient wishes, and
- Reduce unnecessary ED transport

\* Alix Carter, Rebecca Earle, Marie Claude Gregoire, Grace MacConnell, Gerri Frager. Breaking down silos: building better advance directives. *Canadian Journal of Emergency Medicine* 2012; 14(S1).

# Study Purpose

Describe the population of palliative cancer patients who might benefit from home-based emergency paramedic palliative support

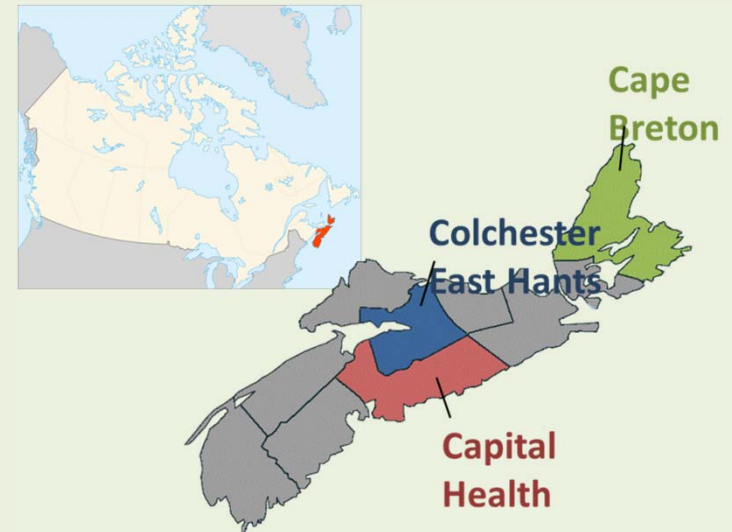


Nova Scotia is a leader in successfully implementing an innovative paramedic “treat-and-release” program. Since February 2011, extended care paramedics “treat-and-release” 70% of nursing home residents after a 911 call; only 6% of them required Emergency Department visit within 48 hours.

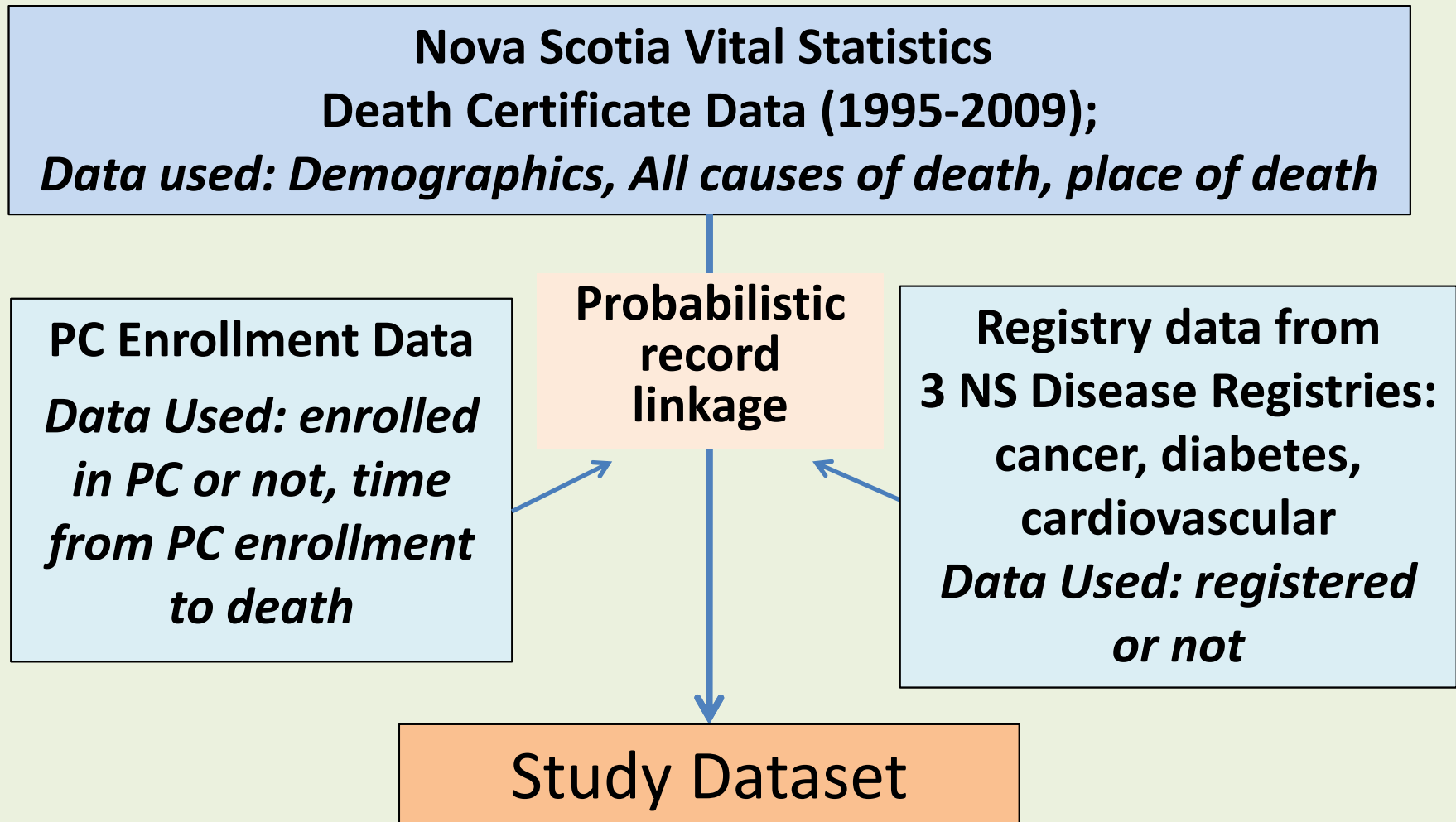
# Methods

Data from six databases were linked to study subjects defined from death certificates

- All deaths: 1995-2009
- 121,458 study subjects
- Up to 13 causes of death
- Three PCs cover 65% of Nova Scotia (NS) population



# Study Data Development



# Population Characteristics

Characteristic	Cancer Decedents n=39,091	Non-cancer Decedents n=82,373
Mean age (years)	72.1	75.7
% of decedents 90 years and over	6.5%*	18.3%
Male proportion	53.6%	49.0%
Average number of causes of death	2.5	3.0

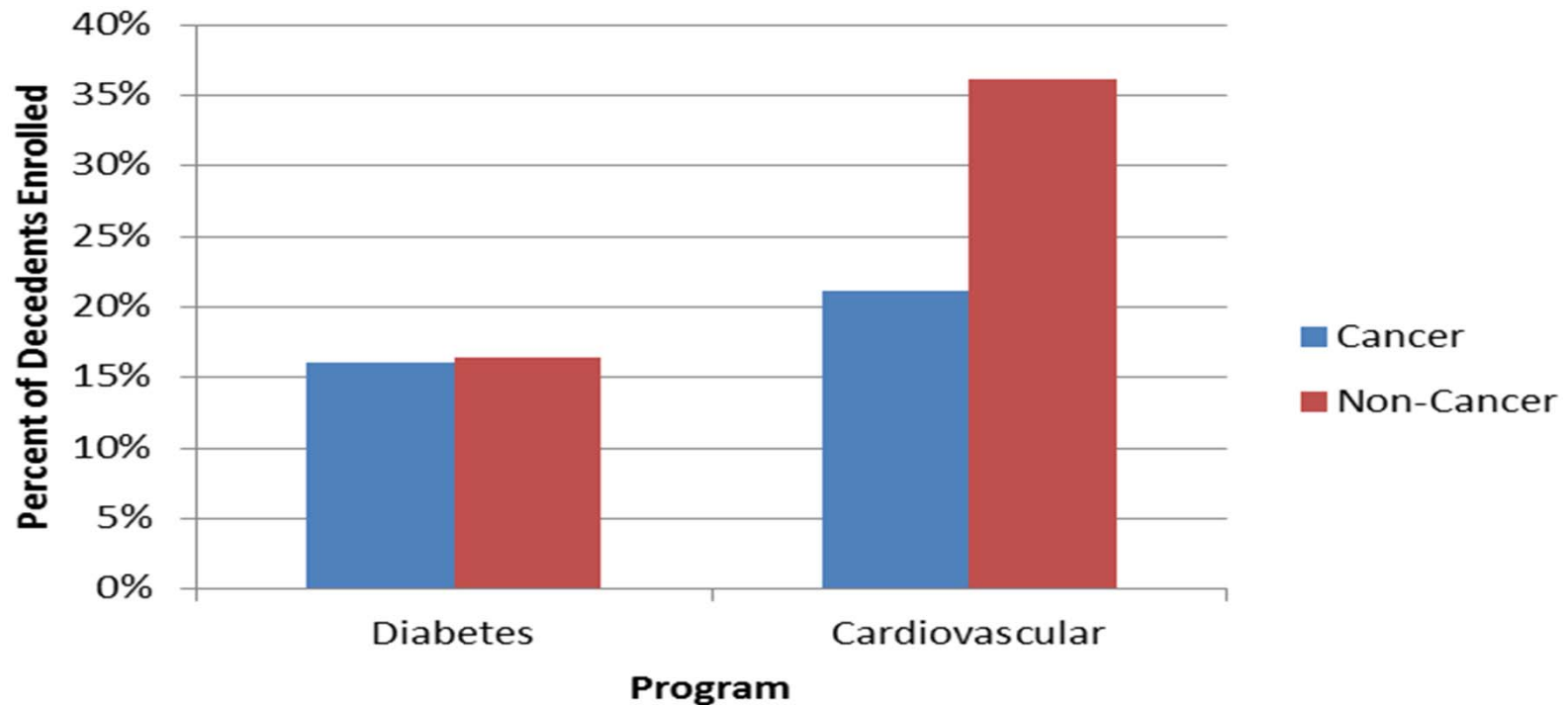
\* Varies by type of cancer, e.g. for persons dying of breast cancer, % is 11.2%

# Non-Cancer Causes of Death

<b>Cause of Death</b>	<b>Cancer Deaths</b>	<b>Non-Cancer Deaths</b>
<b>Sudden Death</b>	0.8%	7.7%
<b>Cardiovascular Disease</b>	11.6%	41.0%
<b>COPD</b>	7.9%	13.2%
<b>Dementia</b>	3.4%	13.5%
<b>Diabetes</b>	6.6%	12.7%
<b>Renal Disease</b>	4.6%	10.2%



# Chronic Disease Registry Enrollment



Important to know all prevalent comorbid diseases.

**Example:** For persons at end of life who have diabetes, to avoid hypoglycemia, blood sugar levels should not be over-managed

\* Grace Johnston, Lynn Lethbridge, Pam Talbot, *et al.* Importance of identifying persons with diabetes who could benefit from palliative care. *Canadian Journal of Diabetes*. 2014 in press

# Palliative Care Program Enrollment

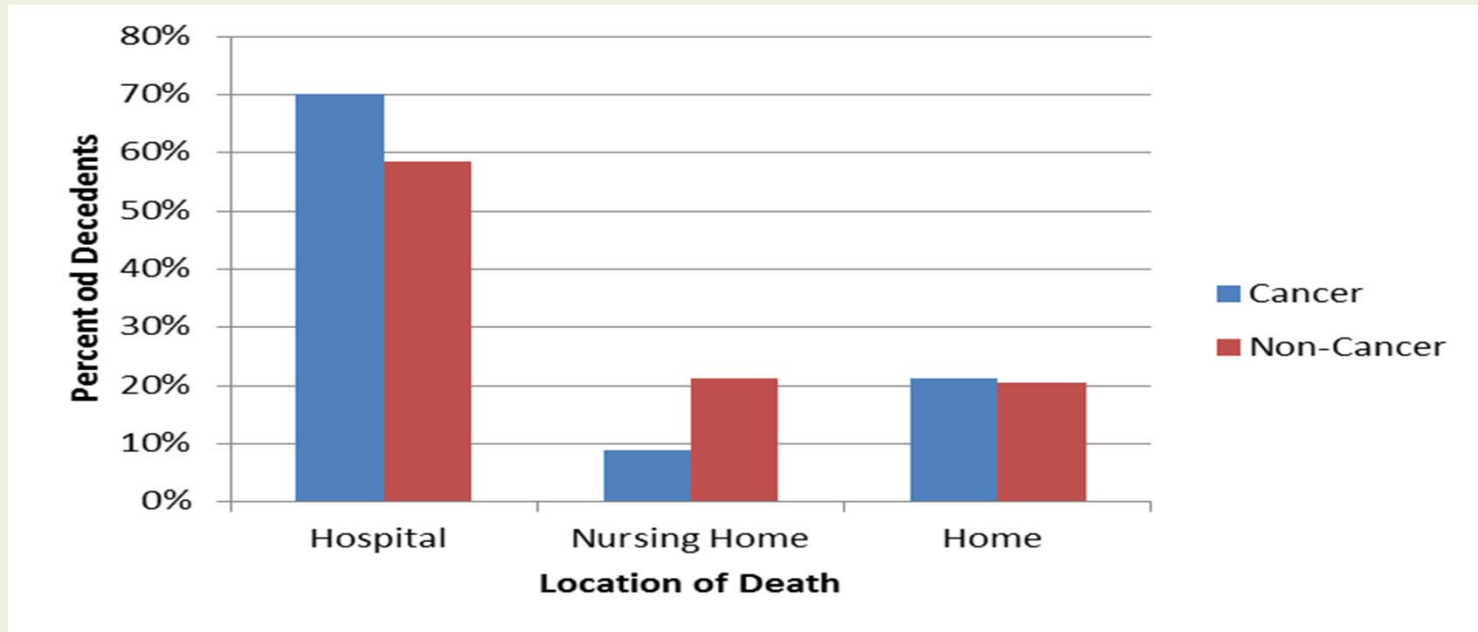
Palliative Care (PC) Program Enrollment	Cancer Decedents	Non-Cancer Decedents
% yes	66.7*	9.2***
Among yes, % enrolled within two weeks of death	22.9**	49.9

\* One third of cancer decedents were not enrolled in PC

\*\* Among PC-enrolled cancer decedents, almost a quarter were enrolled too late for optimal PC

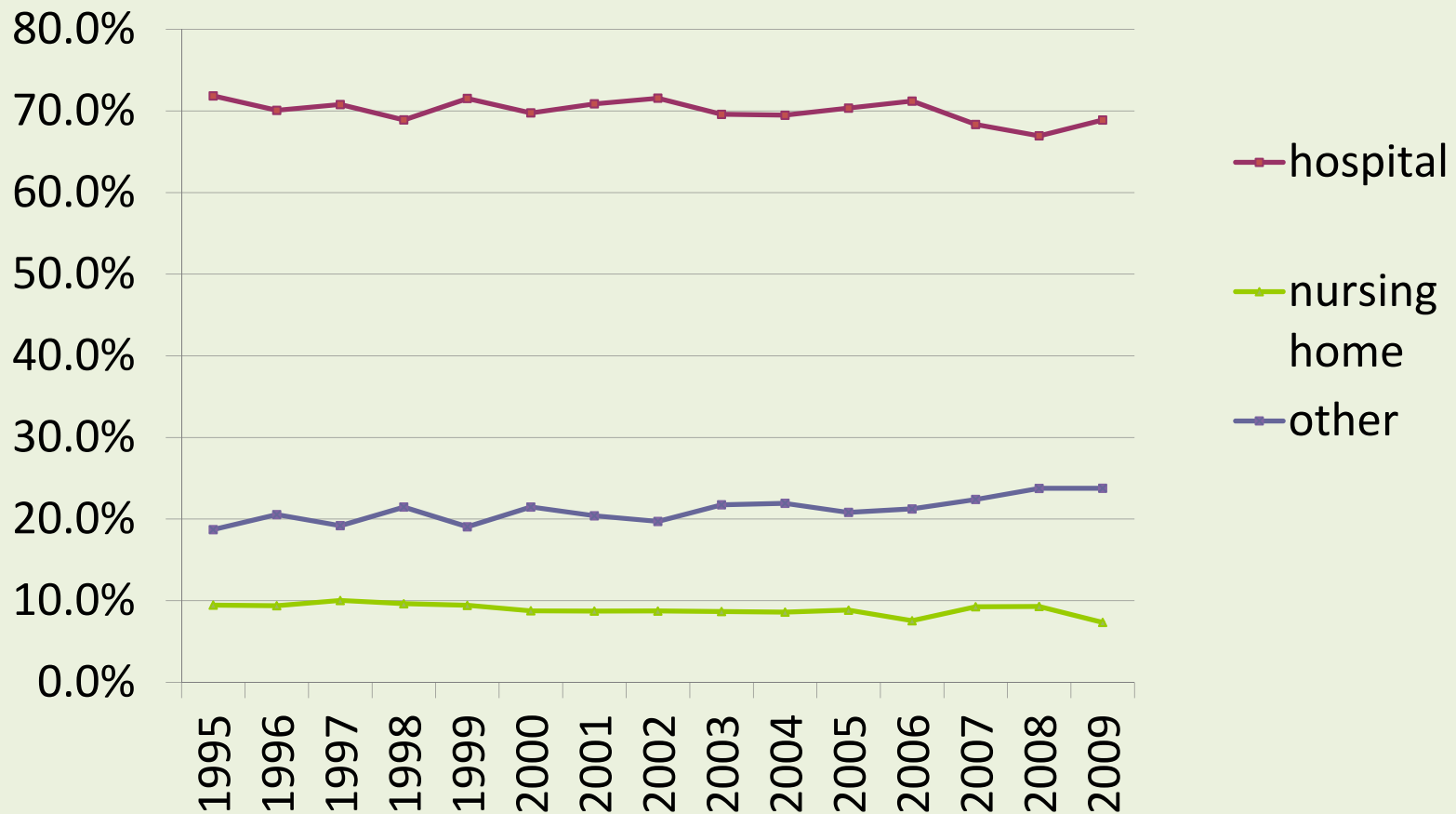
\*\*\* Among non-cancer decedents, PC enrollment increased steadily from about 2% in 1995 to 15% by 2009

# Location of Death



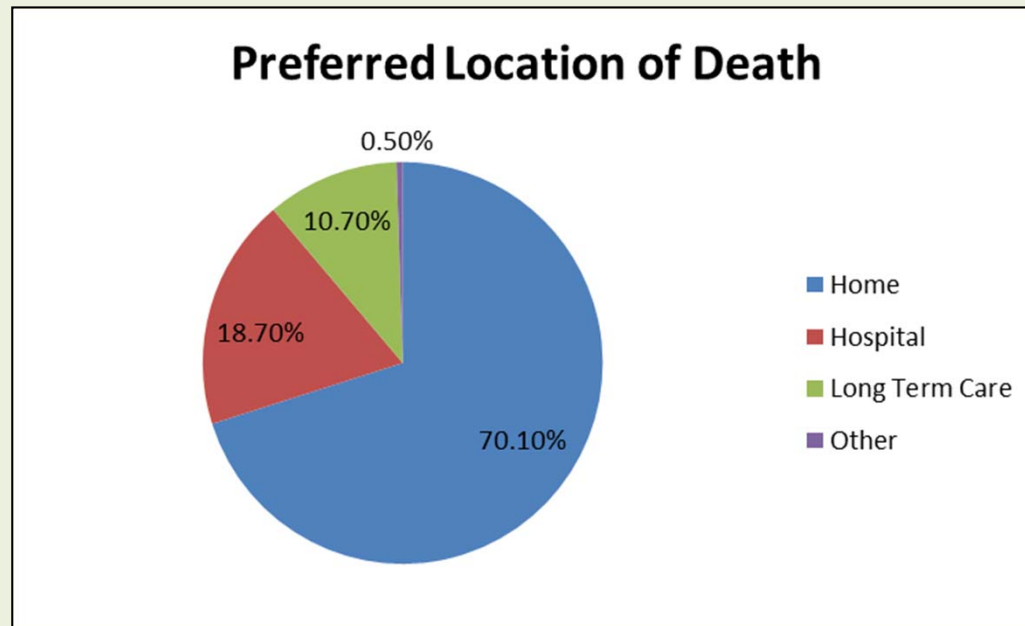
Cancer decedents had high rate (70%) of dying in Hospital;  
Less likely to die in a Nursing Home (8.9%)

# Place of death over time for cancer decedents



# 70% wish to die at home

According to next-of kin<sup>1</sup>, approximately 70% of persons who died wished to die at home, if adequate support was available



1. NELS News (2011) Issue 5. [http://www.dal.ca/content/dam/dalhousie/pdf/sites/nels/NELSnews\\_05.pdf](http://www.dal.ca/content/dam/dalhousie/pdf/sites/nels/NELSnews_05.pdf)

# Unmet Palliative Needs

Nova Scotia plans to improve palliative care through collaboration\*

Recent NS survey reported concerns with end of life care \*\*

Satisfaction and Unmet Needs from Mortality Follow-back Survey	At Home (N=1316)
Not completely satisfied	51.1%
Needs of family:	
A) Need for more information	43.1%
B) Concerns knowing what to expect	66.7%
Concerns about emotional and spiritual needs of family	66.4%
Concerns with communication	23.8%
Emotional Support	16.3%
Coordination of care concerns	16.2%
Dyspnea (breathlessness)	9.5%
Pain	9.0%
Concern with the Decedent being treated with respect	8.1%

\*NS Department of Health and Wellness (2014) **Integrated Palliative Care: Planning for Action in NS.**  
<http://novascotia.ca/dhw/palliativecare/documents/Integrated-Palliative-Care-Strategy.pdf>.

\*\*Fred Burge, Bev Lawson, Grace Johnston *et al.* Bereaved family member perceptions of patient-focused family-centred care during the last 30 days of life using a mortality follow-back survey: does location matter? *BMC Palliative Care* 2014;13(25)

# Conclusions

- Linked administrative data can help inform the need for emergency paramedic palliative support for persons dying of cancer: demographics, comorbidities, partners for clinical guidelines and advance care planning
- For effective implementation of emergency home-based palliative support, collaboration with palliative care, disease programs, and primary care will be essential

**Questions?**