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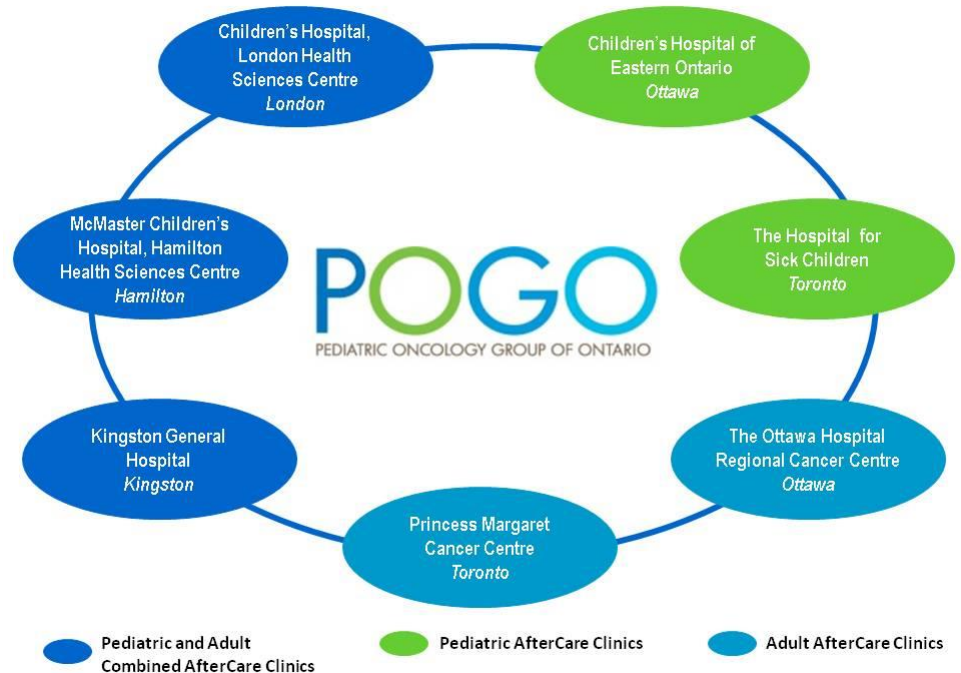
Stemming the Tide:

Models of Care for Young Adult Survivors of Childhood Cancer

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Ontario's Aftercare Network

- 1987**
 - POGO identified need for formal Aftercare program for survivors of malignant disease in childhood
- 1994**
 - Aftercare model developed in collaboration with multiple stakeholders
- 1997**
 - Ministry of Health approval and funding
- 2001**
 - POGO launches mandate for formal Aftercare programs
- 2002**
 - First pediatric and adult Aftercare clinics
- 2004**
 - All pediatric and three adult Aftercare clinics operational, database in all centres





“If you build it, [they] will come.”

Patterns and predictors of use of Ontario's LTFU program

- POGO pediatric cancer registry (POGONIS)
- ICES administrative databases: OHIP, CIHI-DAD, RPDB etc.

Diagnosis	Gender	Diagnosis age
Dox and cyclo equivalents	Radiation (head, chest, other)	ITR-3
SES (deprivation scale)	Relapse/SMN	Distance
PCP annual exam	Pre/post 1999	Program type



Adult LTFU clinic use

- 3912 survivors
- Diagnosed: 1986-2005
- Median 7.9 years (0.2-14) from entering adulthood
- **Only 1695 (43%) with ≥ 1 LTFU visit**
- Median visits: 3 (1-30)

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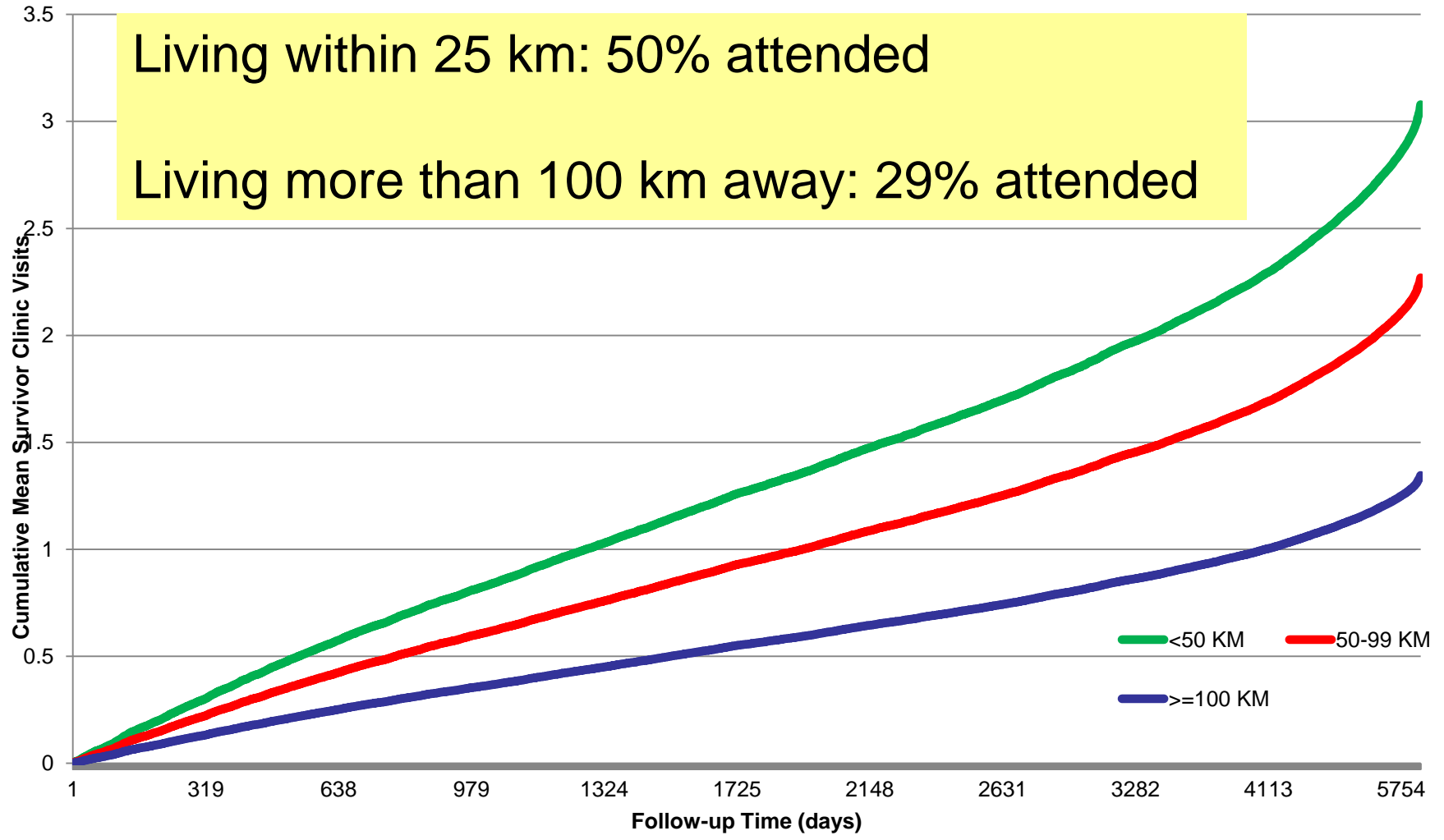
Predictors of attendance

More likely to attend	Less likely to attend
Females	Brain tumor survivors
More intensive therapy	Diagnosed before 1999
Annual exam by a family physician	Lower SES
Radiation (brain/chest)	Greater distance from clinic

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Cumulative survivor clinic visits over time according to distance from nearest clinic



Do survivor clinic visits lead to decreased morbidity and mortality?

Proxy outcomes:

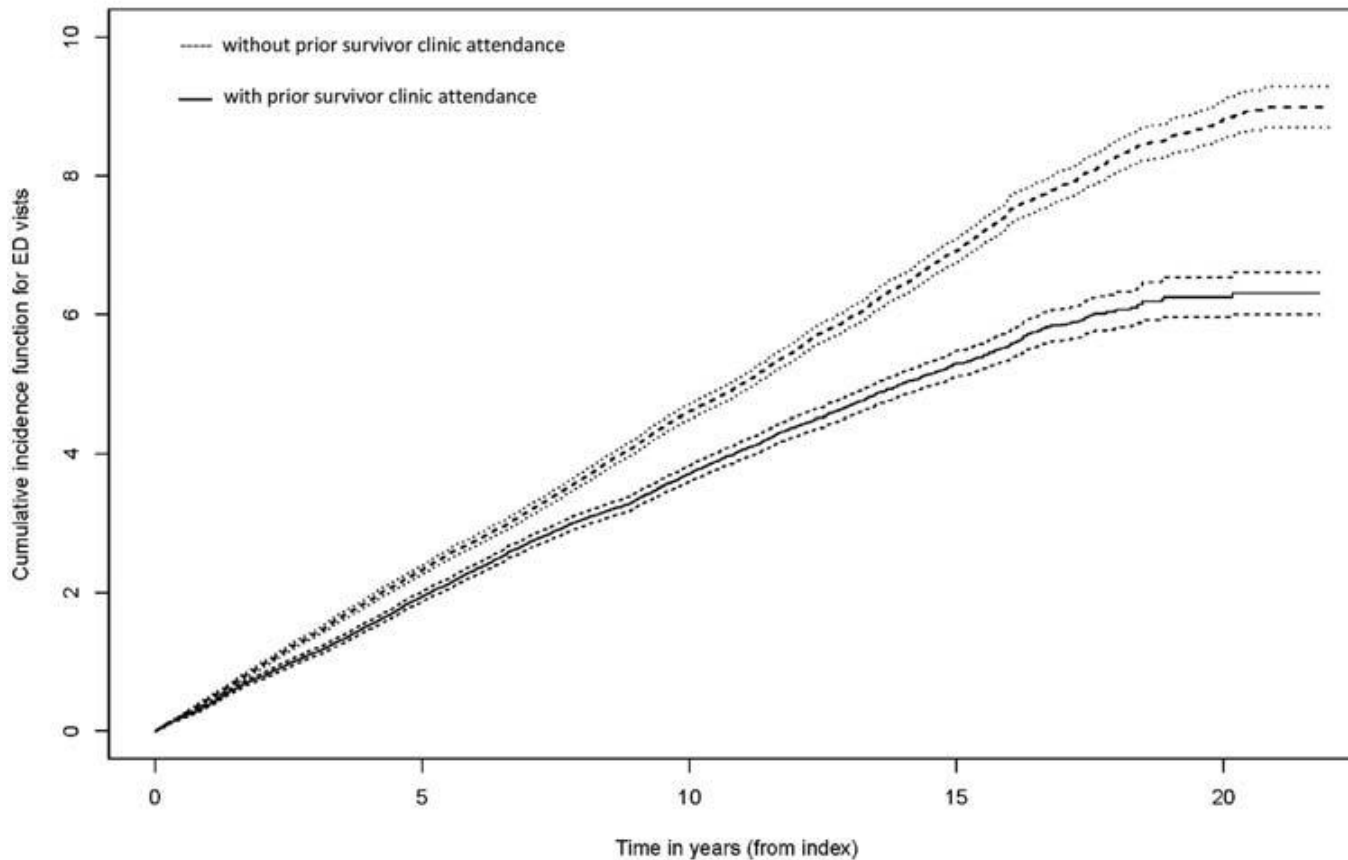
- Emergency Department (ED) visits
- Echo compliance

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Does LTFU attendance impact ED visits?

Expected number of ED visits over time

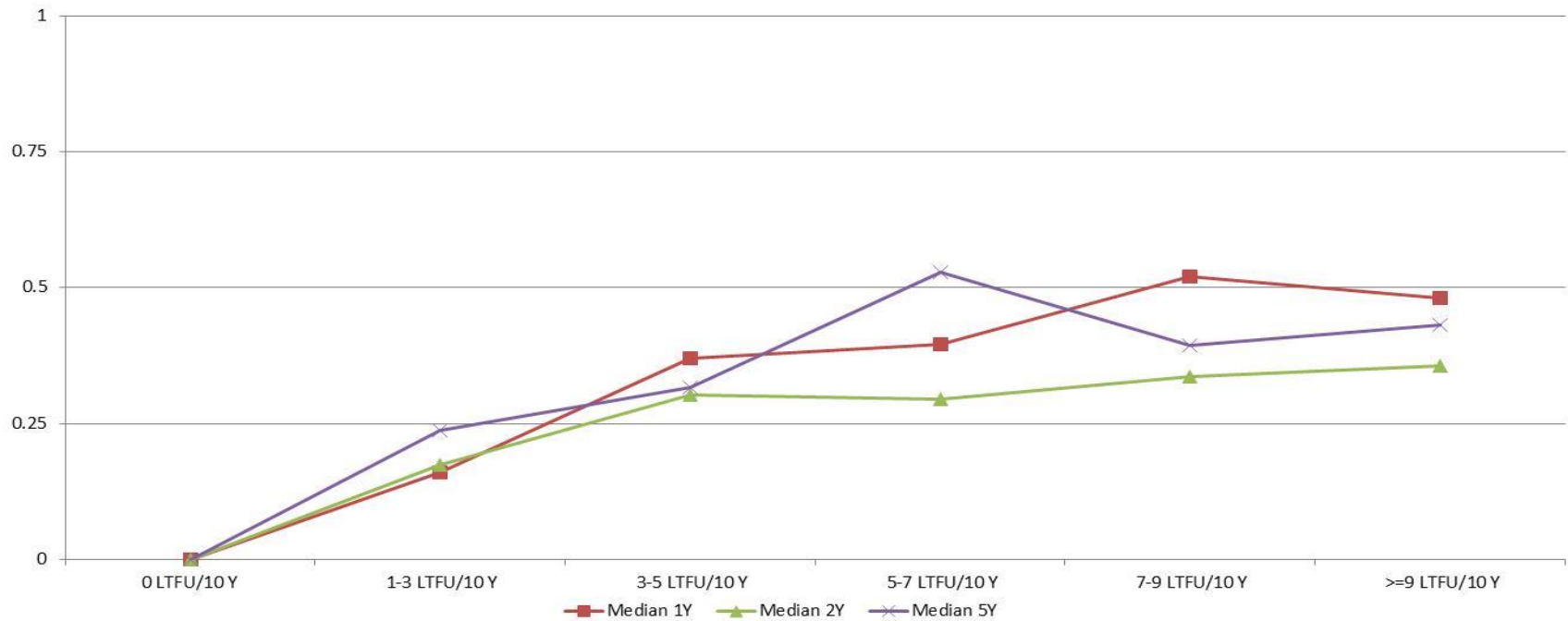


Survivors who have attended at least 1 LTFU clinic were 19% less likely to visit the ED

Each additional LTFU visit decreased ED visits rate by 5%

Echocardiography compliance according to LTFU clinic attendance

Median proportion of Up-to-date Days by Rate of LTFU / 10 years by Group



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Primary care physicians (PCP) and childhood cancer survivors

	General internists (N=1110)	Family physicians (N=1124)
Cared for ≥ 1 CCS in last 5 years	51%	58%
Uncomfortable caring for CCS ($\leq 4/7$)	63-75%	67-77%
Prefer to care for CCS independently	6%	1%
Willing to care for CCS in collaboration with cancer centre	84%	85%

Henderson, JCO 2010
 Nathan, Journal of Cancer Survivorship 2013
 Su, Annals of Internal Medicine 2014

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C.L. is a *29 year old female* patient treated for *Hodgkin's disease* when she was *16 years old*.

She received combination chemotherapy (including *Adriamycin 150 mg/m²* and *Cyclophosphamide 15 g/m²*) and *mantle radiation (25 Gy)*.

Questions regarding:

- Cardiac screening
- Thyroid function
- Breast cancer screening

Correct responses

Correct responses	General internists (N=1110)	Family physicians (N=1124)	Pediatric oncologists (N=665)
Breast cancer screening	27%	16%	66%
Thyroid function	76%	74%	76%
Cardiac screening	15%	10%	57%
All three	5%	2%	33%



Conclusions

- Attendance at AfterCare programs by adult survivors of childhood cancer is <45%
 - Distance a significant barrier
- Attendance \propto \downarrow ED visits, \uparrow echo compliance
 - Does this translate into better long-term health?
- PCPs willing to care for survivors, but:
 - Comfort/knowledge are barriers
 - Want cancer centre access

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