High Cost Health Care Users: A Focus on Health Links

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Agenda

1. Introduce the Objectives of the High Health Care Users Analyses
2. Methodological Notes
3. Who are the High Cost Health Care Users?
4. Where do they Live?
5. What Contributes to the High Cost?
6. Discussion

Objectives

The aims of this research are to:

1) **Describe the cost of health care services by geography and by sector**

2) **To identify characteristics of patients with high resource use, within the 9 Toronto Central LHIN Health Links and overall**

3) **Describe the geographic distribution of the residence of patients with high resource use in the TC LHIN**

Methodological Notes: Data

Macro to generate cost estimates *per person per year* includes:

➢ **Inpatient**

➢ **Day surgery**

➢ **Emergency**

➢ **Inpatient mental health**

➢ **Inpatient rehabilitation**

➢ **Complex continuing care (CCC)**

➢ **Home care**

➢ **Long-term care (LTC)**

➢ **Dialysis clinics**

➢ **Oncology clinics**

➢ **OHIP Physician Billings**

➢ **OHIP Lab Billings (L-codes)**

➢ **OHIP Non-Physician Billings (e.g. physiotherapists, optometrists, chiropractors)**

➢ **Capitation (FHO/FHN)**

➢ **Ontario drug benefits**

➢ **Assistive devices program**

Methodological Notes: Definition of 'High Cost User'

➢ **'High Cost Users' are the 1%, 2 – 5%, and 5% of patients in Ontario with the highest combined expenditure for health care (based on previous data) in 2010**

➢ **From each of the above groups, the TC LHIN residents that were high cost users were identified**

Results: What does it mean to be a high health care cost users?

Population	Total Cost	% of total population	Cost/ person
Total Population	$2,959,130,759	100.0%	$2,474
1% High Users	$1,143,141,381	38.6%	$85,809
5% High Users	$2,008,662,861	67.9%	$33,483
2-5% High Users	$865,521,480	29.2%	$18,546

Results: Who are the high health care cost users?

Age Groups	Population Distribution among top 1% high cost users in TC LHIN	Ontario Population Distribution
<20	2.8 %	24.0 %
20-44	8.8 %	34.9 %
45-64	18.5 %	27.3 %
65-84	41.8 %	11.9 %
85+	28.1 %	1.9 %
Total	100%	100%

Results: Who are the high health care cost users?

Year of Death*	Percent of top 1% high cost users in TC LHIN who died
Year 1	16.4 %
Year 2	15.0 %
Year 3	10.1 %
3-year Total	41.4 %

*Year of death in relation to baseline when 'high user' status was defined.

Results: Who are the high health care cost users?

Among the top 1% of high cost users:

➤ **~ 43% of high cost users die within 3 years (acute high cost users)**

➤ **~ 33% survive and are no longer high users after 3 years**

➤ **~ 24% of high cost users are chronic high cost users**

Results: Who are the high health care cost users?

% of the population that are Ontario top 1% high cost users by income quintile, TC LHIN 2010
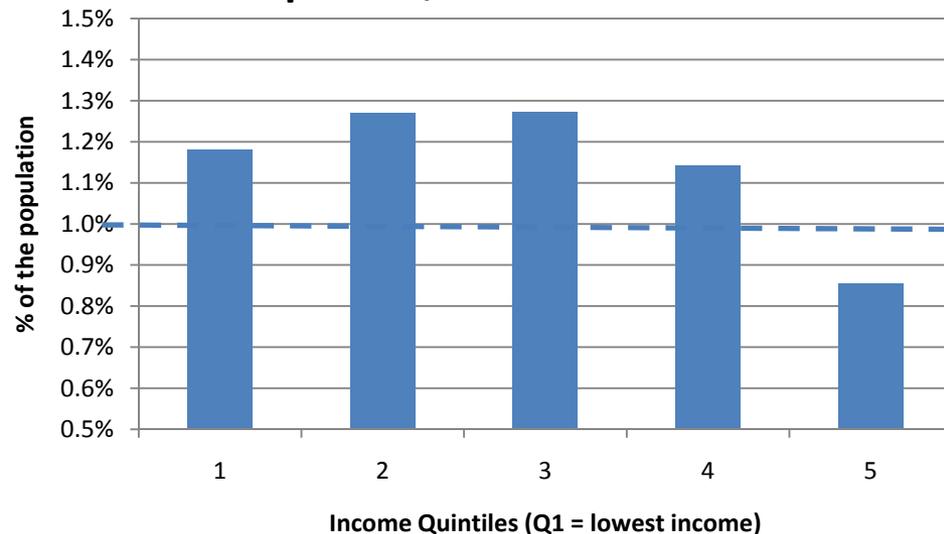

Distribution of top 1% high cost users in the TC LHIN by income quintile, 2010
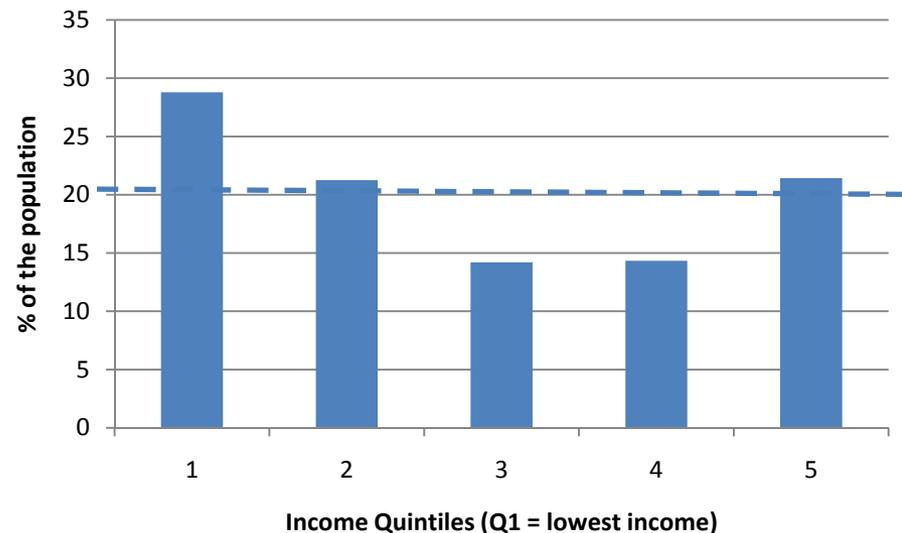
Results: Who are the high health care cost users?

% of the population that are Ontario top 5% high cost users by income quintile, TC LHIN 2010
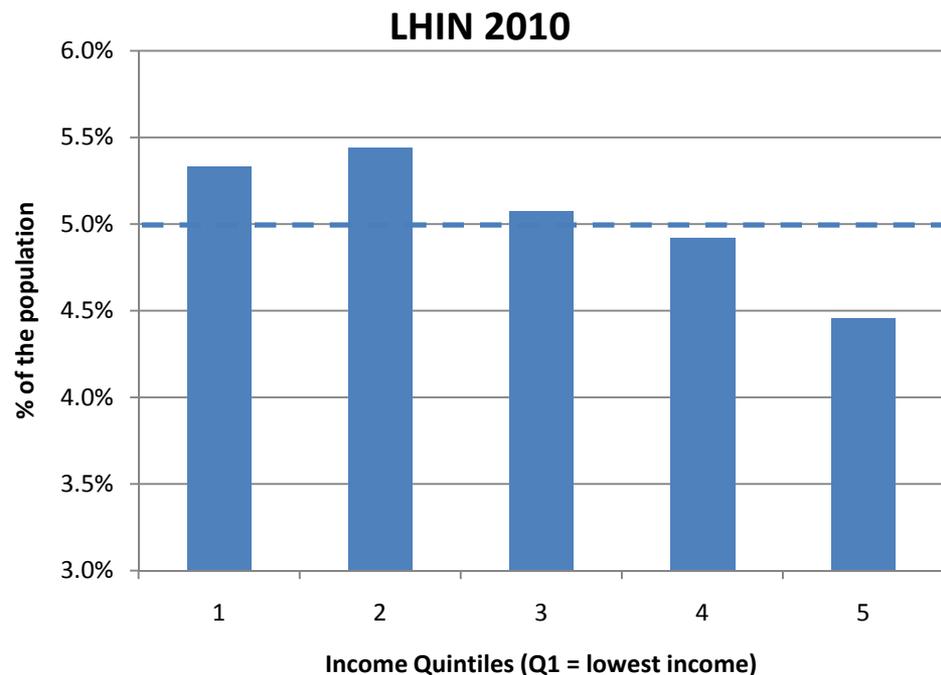

Distribution of top 5% high cost users in the TC LHIN by income quintile, 2010
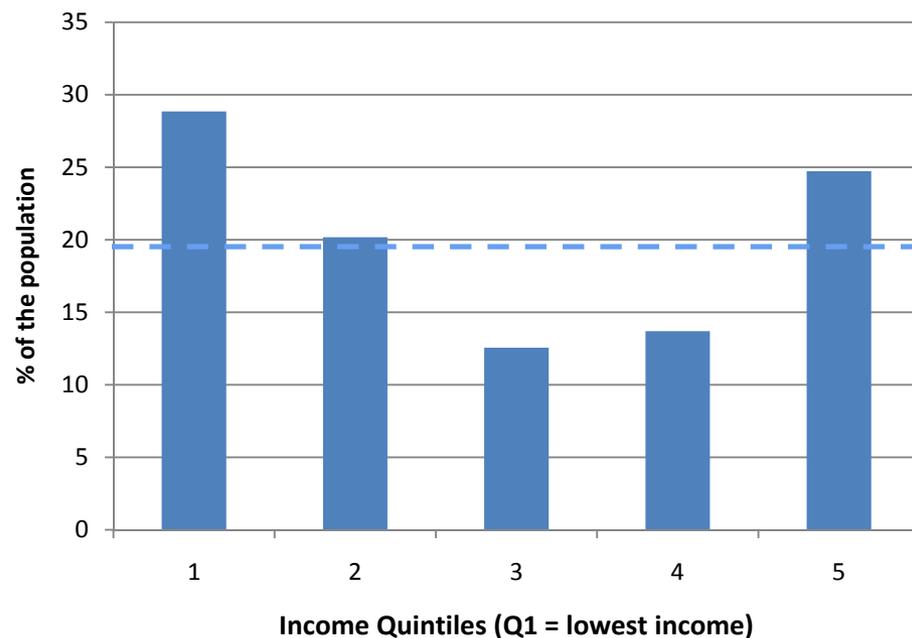
Results: Where do high health care cost users live?

Health Link	Total Population	1% High Cost Users	5% High Cost Users
Central West Toronto	116,650	1,029	5,601
Don Valley Greenwood	81,896	879	3,888
East Toronto	177,411	2,071	9,172
Mid East Toronto	130,273	1,515	7,507
Mid West Toronto	174,447	2,270	8,593
North East Toronto	123,180	1,035	5,221
North West Toronto	127,458	1,434	6,553
South Toronto	148,558	1,878	7,894
West Toronto	116,773	1,197	5,510
Total	1,196,646	13,308	59,939

Results: Where do high health care cost users live?
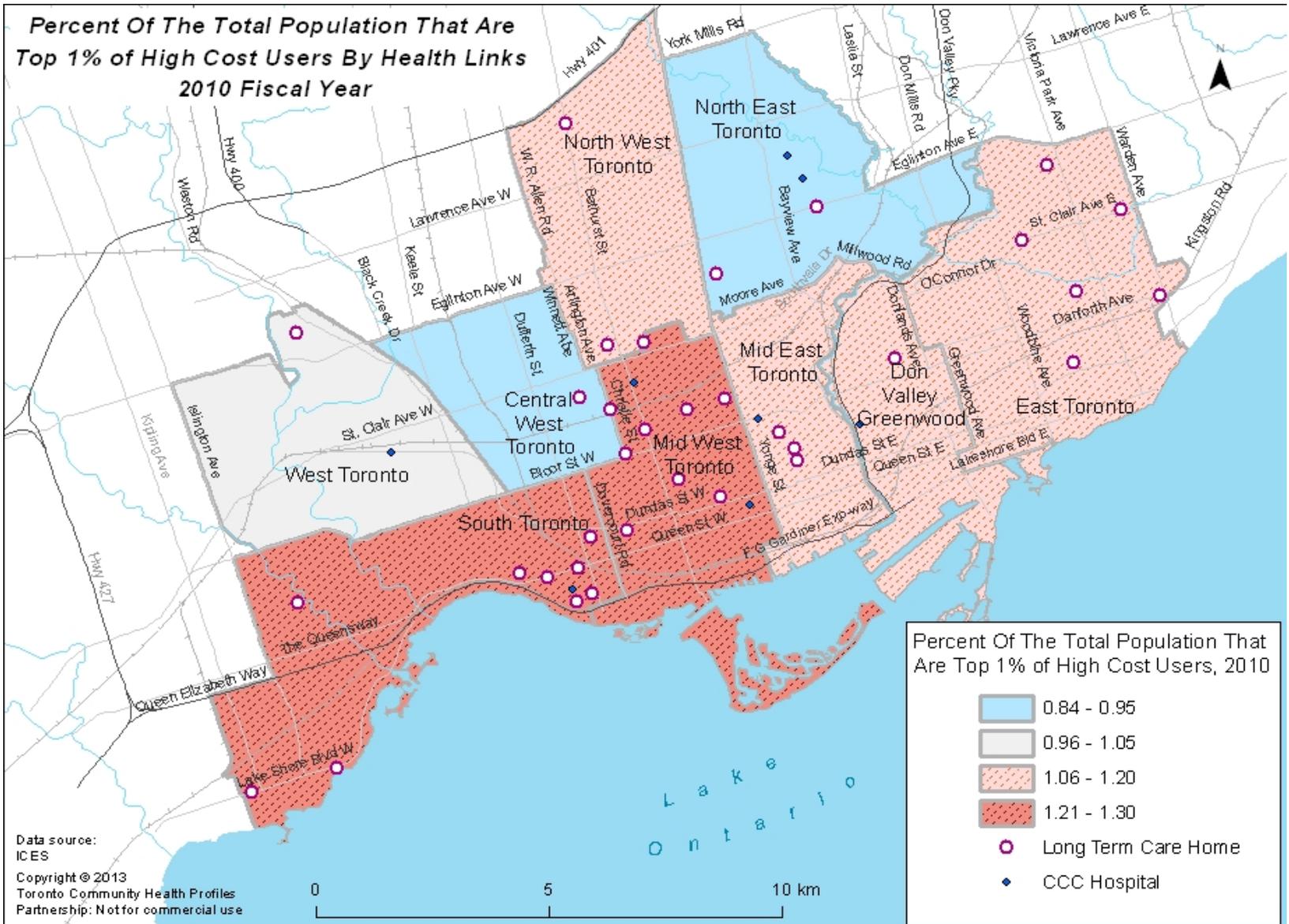
Results: Where do high health care cost users live?

Percent Of The Total Population That Are Top 1% of High Cost Users By Health Links 2010 Fiscal Year
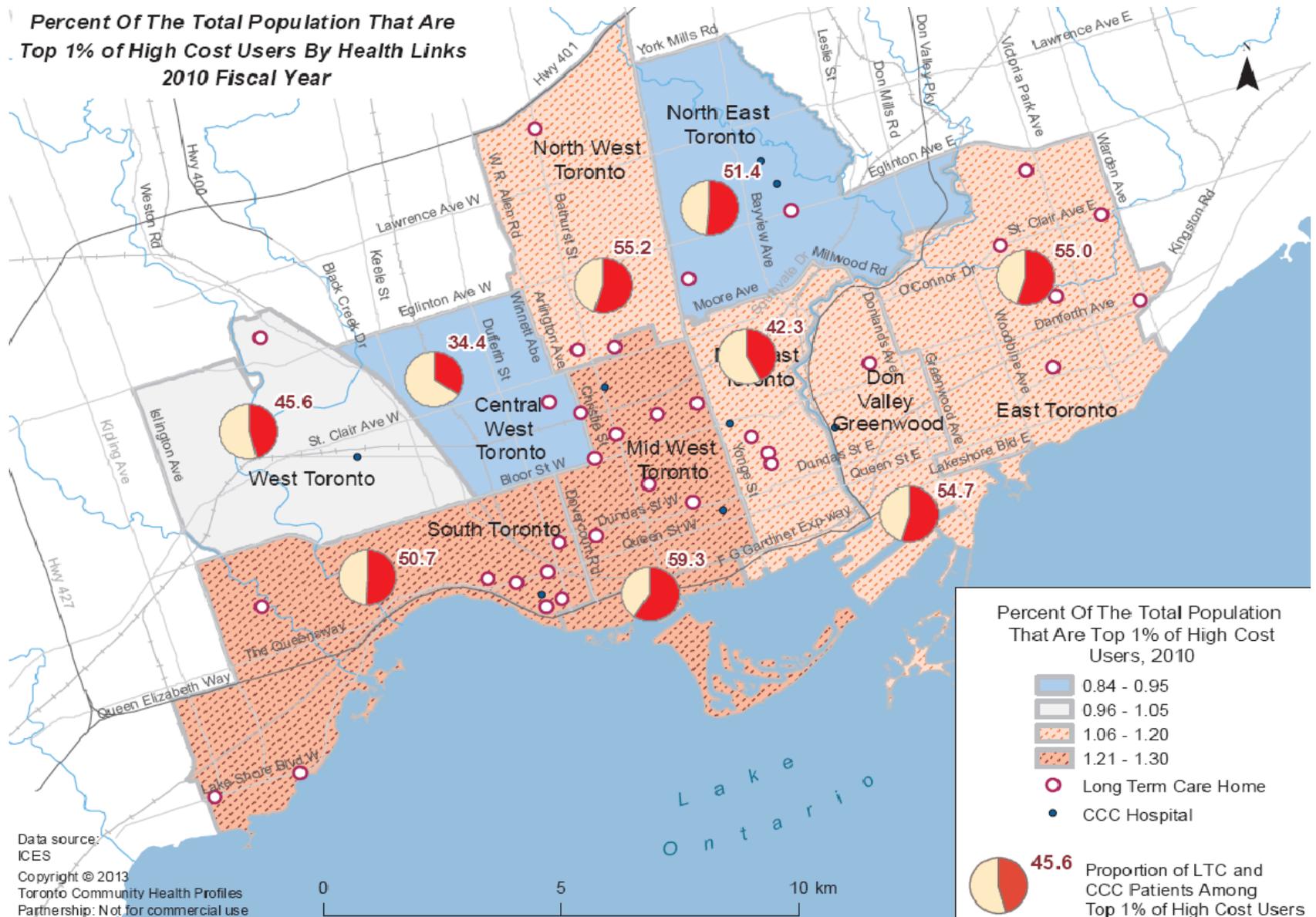
Results: Where do high health care cost users live?

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Percent Of The Total Population That Are Top 5% of High Cost Users By Health Links 2010 Fiscal Year

Percent Of The Total Population That Are Top 5% of High Cost Users, 2010

- 4.24
- 4.25 - 4.90
- 4.91 - 5.10
- 5.11 - 5.35
- 5.36 - 5.76

○ Long Term Care Home
• CCC Hospital

13.2 Proportion of LTC and CCC Patients Among Top 5% of High Cost Users

Data source: ICES
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0   5   10 km
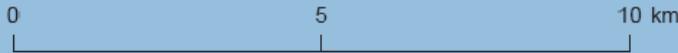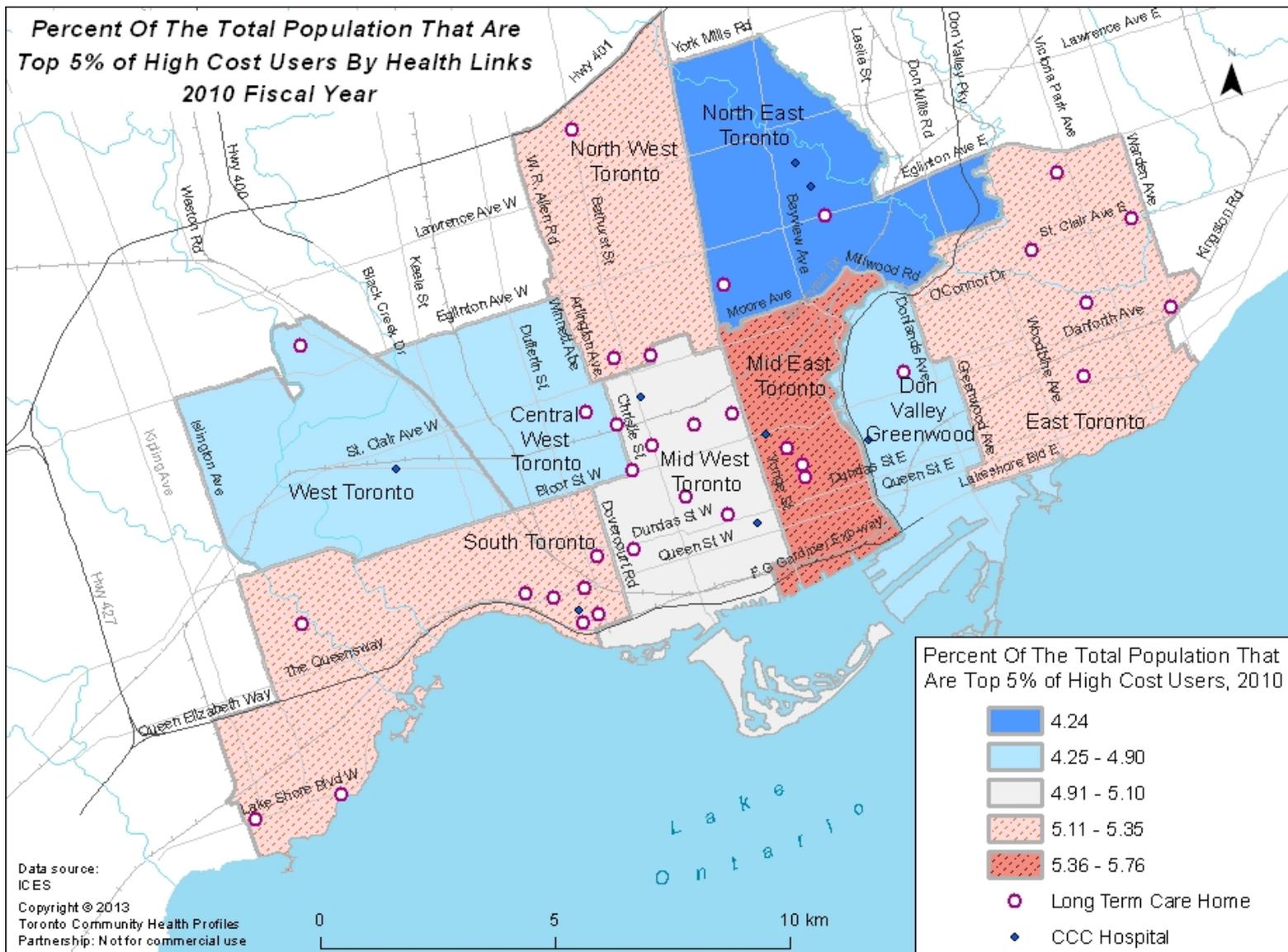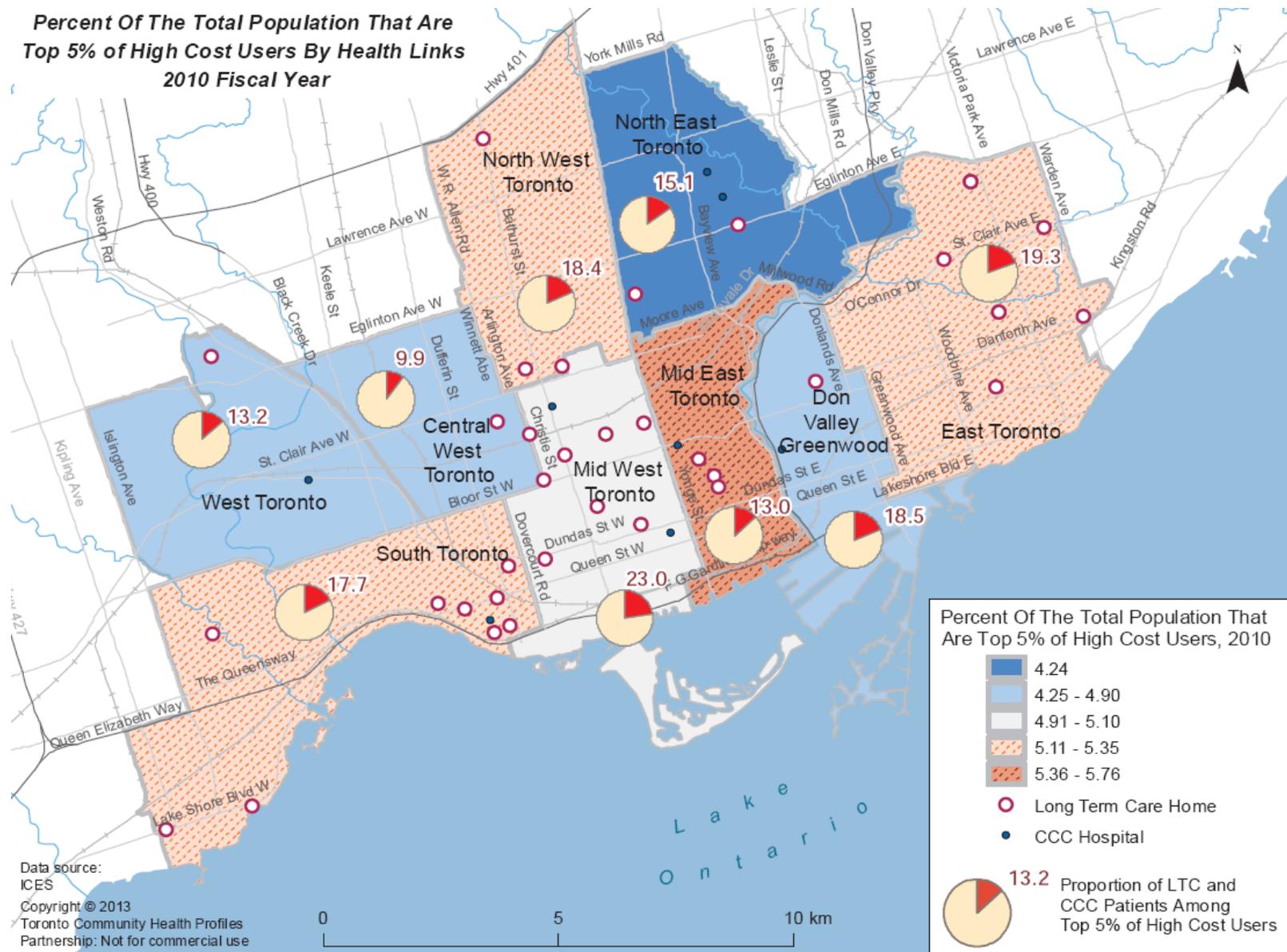
Where are the areas with higher than expected rates (based on age & sex)?

Ratio of Observed Versus Expected* Number of High Cost Users by Health Link, 2010 Fiscal Year

Ratio of observed versus expected* number of high cost users based on the age-sex distribution of the Health Link population, 2010

- 0.88 - 0.95
- 0.96 - 1.05
- 1.06 - 1.28
- 1.29 - 1.45
- ○ Long Term Care Home
- ◆ CCC Hospital

* Expected are generated using the age and sex specific rates of 1% high users in Ontario

Data source: ICES

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0   5   10 km

Lake Ontario

Results: What are the cost drivers?

Distribution of health care costs, total population, TC LHIN 2010

- OMHRS admissions to designated mental health beds, 4.7%
- FHO/FHN physician capitation cost , 1.5%
- Inpatient hospitalization, 20.5%
- Same Day Surgery, 2.4%
- NACRS ED visits, 3.4%
- NACRS visits to dialysis clinics, 2.6%
- NACRS visits to cancer clinics, 1.7%
- Ontario Drug Benefit (ODB), 12.5%
- Rehabilitation, 1.8%
- Complex & Continuing Care, 6.3%
- LTC cost, 8.3%
- Home Care services, 6.1%
- FFS physician visits, 28.2%

Physician visits = ~30 %
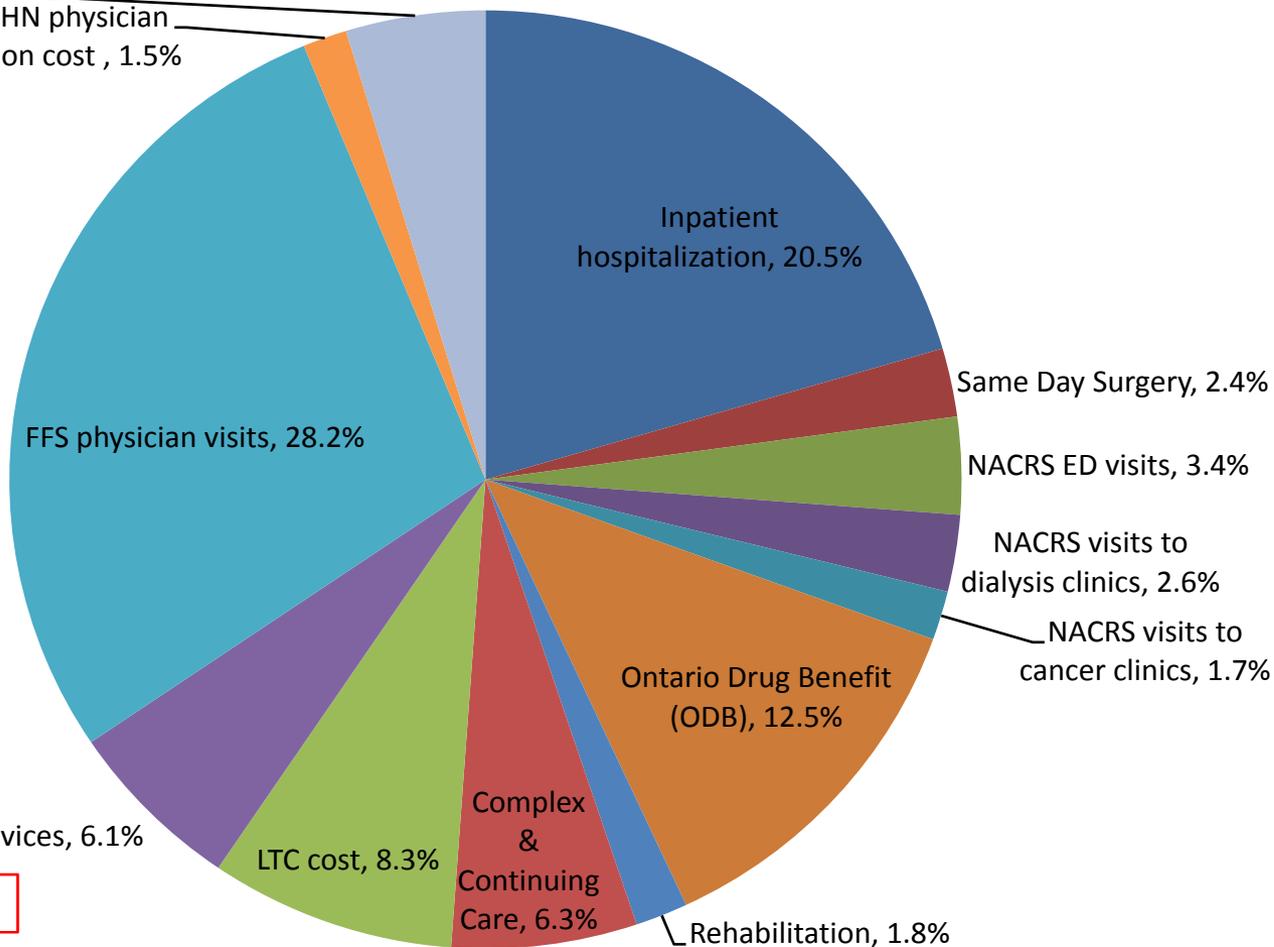
LTC & CCC = 14.6%

Results: What are the cost drivers?

Distribution of health care costs among top 1% high cost users, TC LHIN 2010

Physician visits = < 10%

LTC & CCC = 32%

- FHO/FHN physician capitation cost , 0.1%
- OMHRS admissions to designated mental health beds, 9.2%
- Inpatient hospitalization, 26.4%
- FFS physician visits, 8.9%
- Home Care services, 5.4%
- LTC cost, 16.4%
- Same Day Surgery, 0.3%
- NACRS ED visits, 1.3%
- NACRS visits to dialysis clinics, 6.8%
- NACRS visits to cancer clinics, 1.7%
- Ontario Drug Benefit (ODB), 4.9%
- Rehabilitation, 3.2%
- Complex & Continuing Care, 15.6%

Results: What are the cost drivers?

Chronic Condition	Prevalence among top 1% high cost users in TC LHIN	Prevalence among top 5% high cost users in TC LHIN	Prevalence among total TC LHIN population	Prevalence among total Ontario population
Hypertension	72.3%	60.6%	19.2%	21.9%
Diabetes	39.2%	31.2%	8.4%	9.5%
COPD	33.7%	26.1%	5.9%	6.6%
CHF	28.1%	16.6%	1.8%	2.1%
Cancer	25.7%	22.3%	3.9%	4.1%
Asthma	18.9%	20.4%	13.6%	14.4%
Mental Health	15.4%	20.7%	9.9%	9.0%
MI	8.5%	6.3%	0.9%	1.3%
Total Population	13,322	59,991	1,195,899	13,639,380

Discussion: What can this data tell us? What does this mean?

➢ **Acute care still accounts for the majority of spending, particularly among high cost patients.**

➢ **LTC/CCC costs are a significant proportion of total costs in this populations**

➢ **~ 43% of high cost users die within 3 years (acute high cost users)**

➢ **~ 24% of high cost users are chronic high cost users**

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Many additional maps/data are available online at:

www.torontohealthprofiles.ca

Questions?
Comments?

Discussion