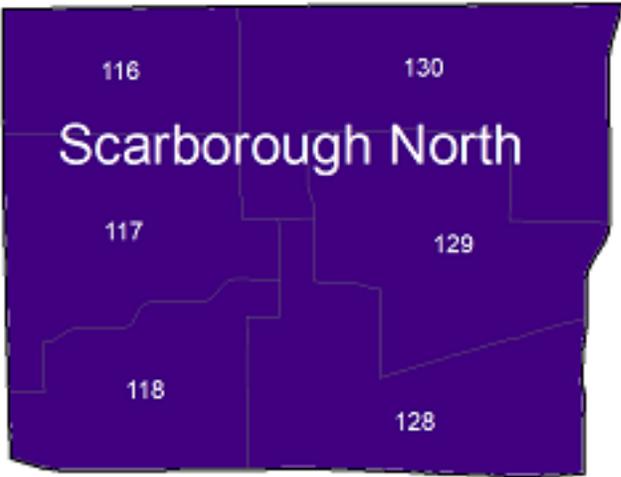


Sub-Region 906 Scarborough North

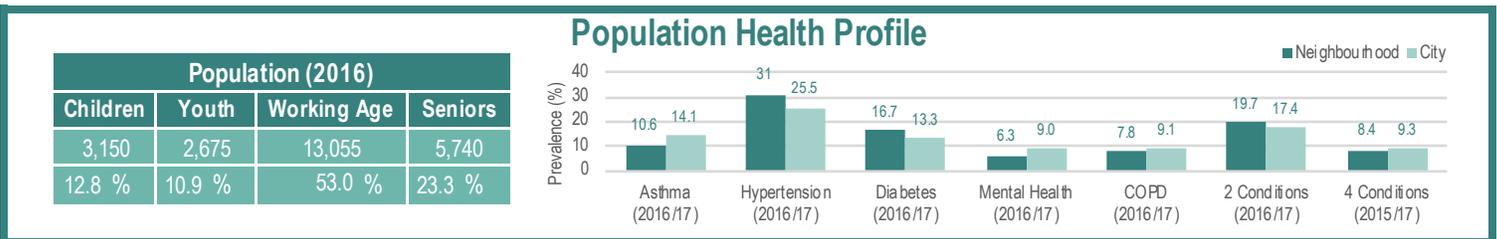
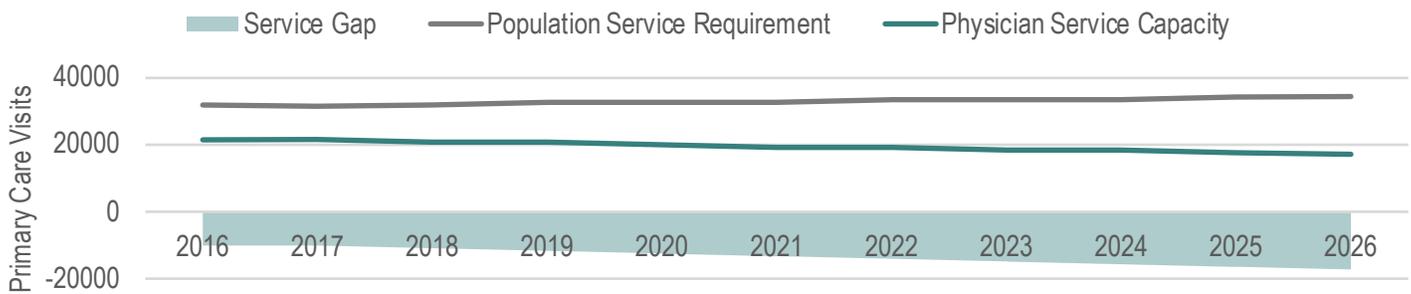
Neighbourhoods	
116	Steeles
117	L'Amoreaux
118	Tam O'Shanter-Sullivan
128	Agincourt South-Malvern West
129	Agincourt North
130	Milliken





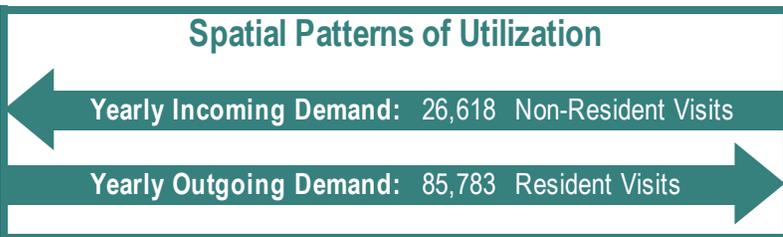
Primary Care Workforce Planning

Neighbourhood Profile: Steeles



Year	Population Estimates (Low-High)	Estimated Yearly Growth
2016	24,623	Neigh: 0.11 % - 0.18 % City: 1.60 % - 2.50 %
2021	24,820 - 24,844	
2026	25,017 - 25,065	

Indicator	Neigh. Quintile	City Quintile
Material Deprivation	4	4
Residential Instability	1	5
Dependency	5	1
Ethnic Concentration	5	5



Indicator	Neigh.	City
PEM Attachment (%)	78.2	71.6
ACSC Hospitalization / 100,000	152.7	244.4
Low Urgency ED (%)	49.8	81.5

Number of Comprehensive Primary Care Physicians	Average Weekly Hours Available	Year	Chiropractis	Dieticians	Midwives	NPs	OTs	Optometrists	Pharmacists	PTs	Psychologists	RNs	RPNs	RTs	SLPs
		2016	(1-5)	0	23	0	3	0	0	73	97	0	763	881	0
2017	(1-5)	2017	0	20	0	0	0	43	110	136	0	720	813	0	12
		2018	14	33	0	0	0	21	73	10	0	765	922	0	12



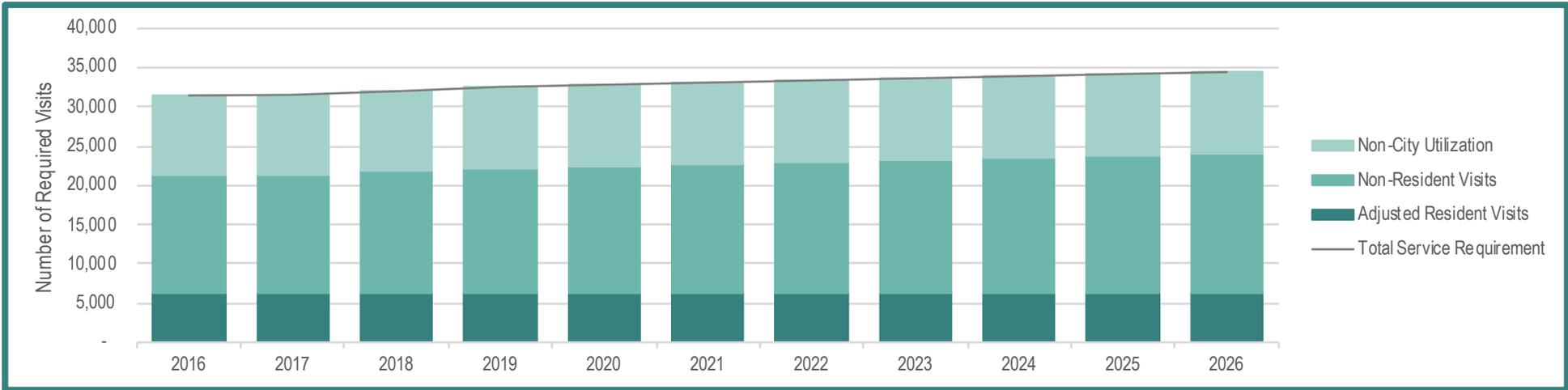
Primary Care Workforce Planning

Service Requirements Module: Steeles

Examine the Sources of Service Requirements at a Neighbourhood Level

Total Service Requirements =

- 1 - **Resident Visits:** Number of resident visits expected to be accessed in their neighbourhood of residence based on baseline spatial patterns of utilization
- +
- 2 - **Non-Resident Visits:** Number of non-resident visits expected to be accessed in the neighbourhood based on baseline spatial patterns of utilization
- +
- 3 - **Non-City Utilization:** Number of visits expected to be utilized by non-city residents in the neighbourhood based on baseline spatial patterns of utilization



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Number of Residents	26,539	26,583	26,626	26,670	26,714	26,758	26,801	26,845	26,889	26,932	26,976
Resident Visits	91,481	90,599	91,782	91,933	92,083	92,234	92,385	92,535	92,686	92,837	92,987
Proportion of Care Accessed Within Home Neighbourhood	6.9%										
Resident Visits Adjusted for Spatial Patterns of Utilization	6,312	6,251	6,333	6,343	6,354	6,364	6,375	6,385	6,395	6,406	6,416
Non-Resident Visits	14,920	14,968	15,476	15,754	16,032	16,310	16,588	16,866	17,144	17,422	17,700
Non-City Utilization	10,329										
Total Service Requirement	31,562	31,548	32,138	32,427	32,715	33,003	33,292	33,580	33,868	34,157	34,445

Primary Care Workforce Planning

Service Capacity Module: Steeles

Examine the Sources of Service Capacity at a Neighbourhood Level

Total Service Capacity =

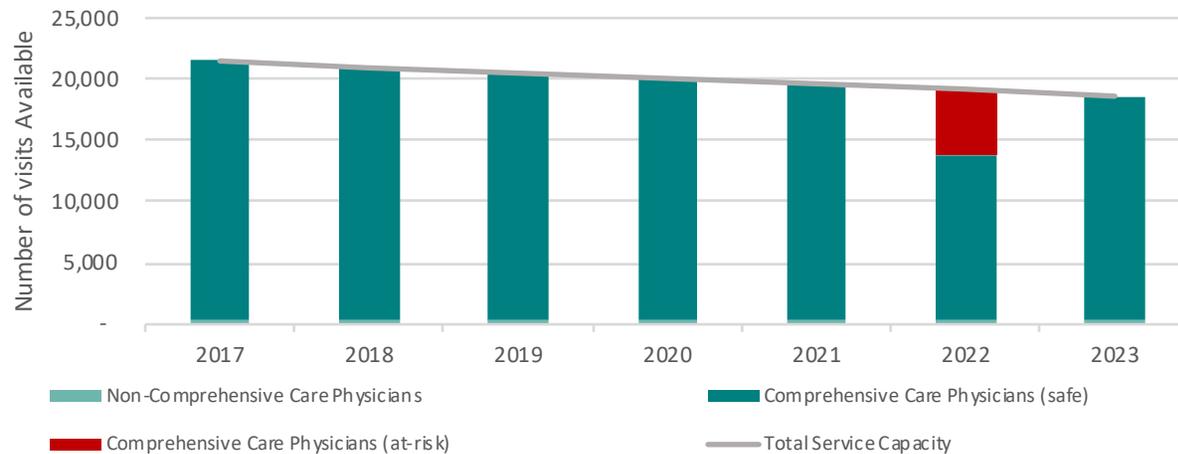
Comprehensive Care Physicians' Safe Service Capacity: Estimated number of services provided by comprehensive care physicians who are not expected to be at risk of exit from the workforce

+

Comprehensive Care Physicians' At-Risk Service Capacity: Estimated number of services provided by comprehensive care physicians who are considered to be at risk of exit from the workforce

+

Service Capacity Generated by Non-Comprehensive Care Physicians: Estimated number of services provided by non-comprehensive care physicians



Allied Health Professionals			
Average Weekly Hours Available			
Profession	2016	2017	2018
Chiroprodists	0	0	14
Dieticians	23	20	33
Midwives	0	0	0
NPs	3	0	0
OTs	0	0	0
Optometrists	0	43	21
Pharmacists	73	110	73
PTs	97	136	10
Psychologists	0	0	0
RNs	763	720	765
RPNs	881	813	922
RTs	0	0	0
SLPs	12	12	12

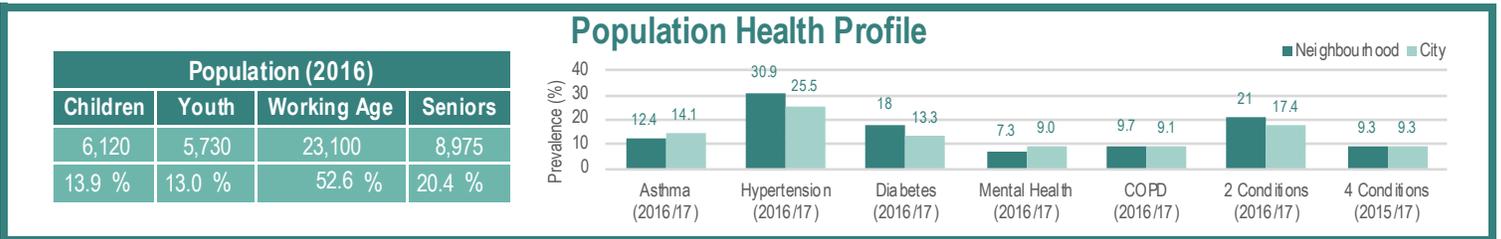
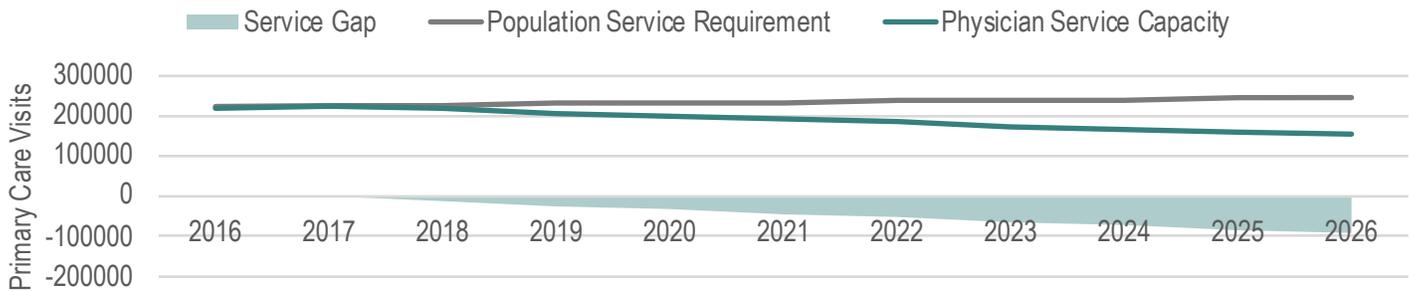
Number of Comprehensive Primary Care Physicians	
2016	(1-5)
2017	(1-5)

	2017	2018	2019	2020	2021	2022	2023
Comprehensive Care Physicians' Safe Service Capacity	21,032	20,553	20,074	19,595	19,116	13,383	18,158
Comprehensive Care Physicians' At-Risk Service Capacity	0	0	0	0	0	5,254	0
Non-Comprehensive Care Physicians' Service Capacity	464						
Total Service Capacity	21,496	21,017	20,538	20,059	19,580	19,101	18,622



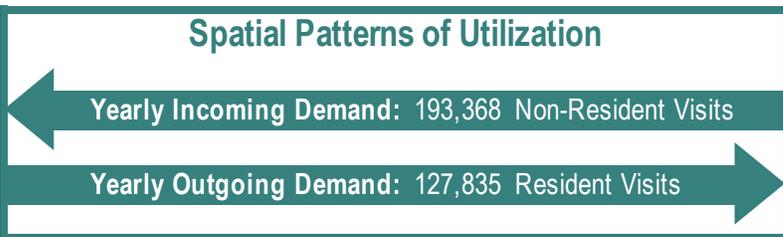
Primary Care Workforce Planning

Neighbourhood Profile: L'Amoreaux



Year	Population Estimates (Low-High)	Estimated Yearly Growth
2016	43,993	Neigh: 0.39 % - 0.59 % City: 1.60 % - 2.50 %
2021	45,179 - 45,299	
2026	46,366 - 46,605	

Indicator	Neigh. Quintile	City Quintile
Material Deprivation	4	4
Residential Instability	2	5
Dependency	5	1
Ethnic Concentration	5	5



Indicator	Neigh.	City
PEM Attachment (%)	76.7	71.6
ACSC Hospitalization / 100,000	251.1	244.4
Low Urgency ED (%)	65.0	81.5

Number of Comprehensive Primary Care Physicians	Year	Chiropractis	Dieticians	Midwives	NPs	OTs	Optometrists	Pharmacists	PTs	Psychologists	RNs	RPNs	RTs	SLPs
		2016	17	12	0	0	36	0	922	57	0	59	48	0
2016	36	16	27	0	0	52	166	959	118	0	28	103	0	0
2017	32	6	0	0	0	51	141	533	42	0	53	93	0	0



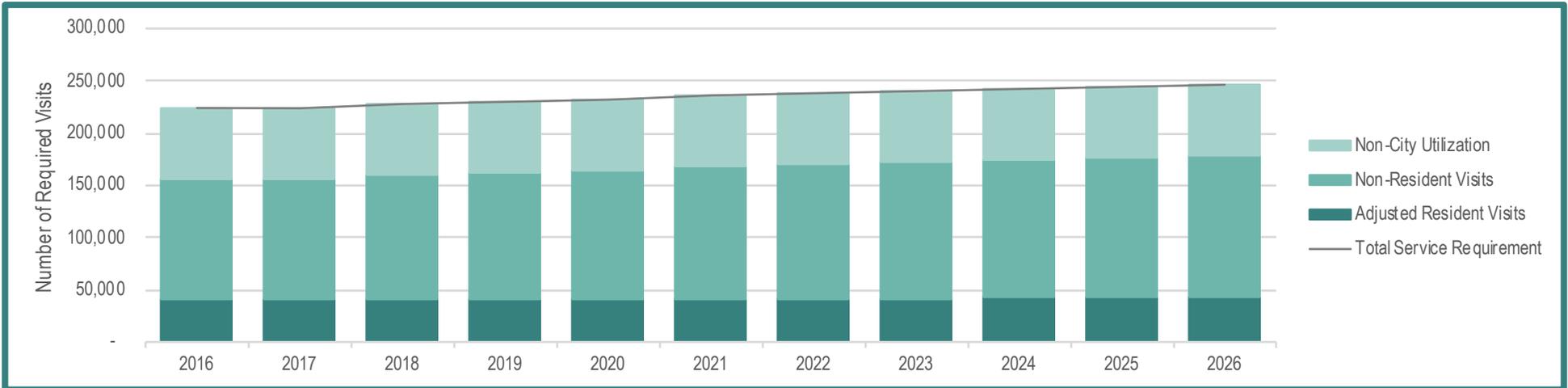
Primary Care Workforce Planning

Service Requirements Module: L'Amoreaux

Examine the Sources of Service Requirements at a Neighbourhood Level

Total Service Requirements =

- 1 - **Resident Visits:** Number of resident visits expected to be accessed in their neighbourhood of residence based on baseline spatial patterns of utilization
- +
- 2 - **Non-Resident Visits:** Number of non-resident visits expected to be accessed in the neighbourhood based on baseline spatial patterns of utilization
- +
- 3 - **Non-City Utilization:** Number of visits expected to be utilized by non-city residents in the neighbourhood based on baseline spatial patterns of utilization



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Number of Residents	45,836	46,095	46,353	46,612	46,871	47,130	47,388	47,647	47,906	48,164	48,423
Resident Visits	164,805	164,213	166,666	167,596	168,526	169,456	170,386	171,317	172,247	173,177	174,107
Proportion of Care Accessed Within Home Neighbourhood	24.5%										
Resident Visits Adjusted for Spatial Patterns of Utilization	40,377	40,232	40,833	41,061	41,289	41,517	41,745	41,973	42,200	42,428	42,656
Non-Resident Visits	115,707	116,085	119,696	121,691	123,686	125,680	127,675	129,670	131,664	133,659	135,654
Non-City Utilization	67,835										
Total Service Requirement	223,919	224,152	228,365	230,587	232,810	235,032	237,255	239,477	241,700	243,922	246,145



Primary Care Workforce Planning

Service Capacity Module: L'Amoreaux

Examine the Sources of Service Capacity at a Neighbourhood Level

Total Service Capacity =

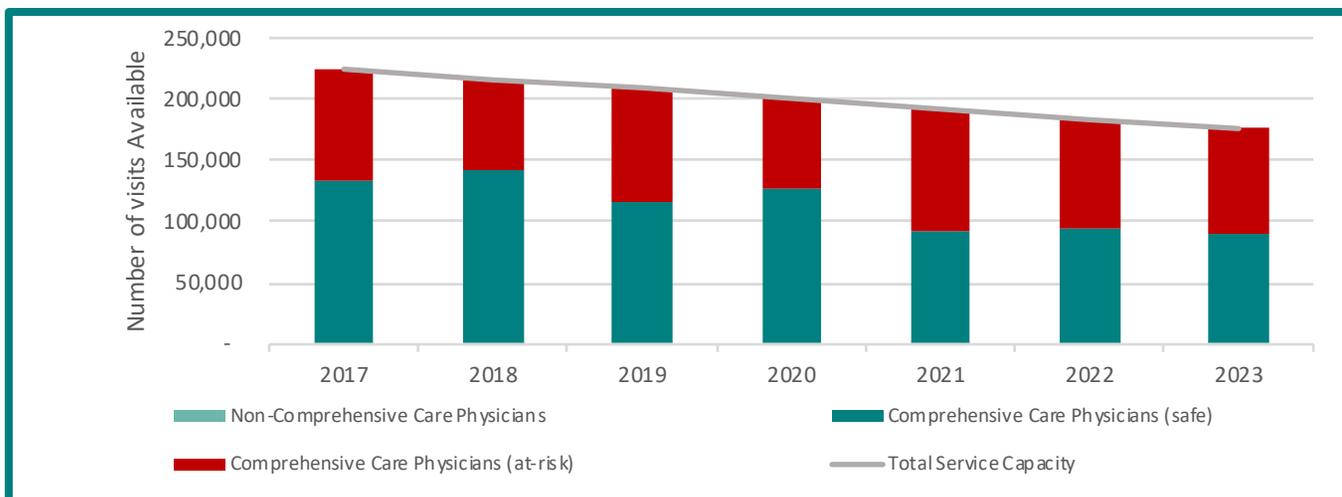
Comprehensive Care Physicians' Safe Service Capacity: Estimated number of services provided by comprehensive care physicians who are not expected to be at risk of exit from the workforce

+

Comprehensive Care Physicians' At-Risk Service Capacity: Estimated number of services provided by comprehensive care physicians who are considered to be at risk of exit from the workforce

+

Service Capacity Generated by Non-Comprehensive Care Physicians: Estimated number of services provided by non-comprehensive care physicians



Allied Health Professionals			
Average Weekly Hours Available			
Profession	2016	2017	2018
Chiroprodists	17	16	6
Dieticians	12	27	0
Midwives	0	0	0
NPs	0	0	0
OTs	36	52	51
Optometrists	0	166	141
Pharmacists	922	959	533
PTs	57	118	42
Psychologists	0	0	0
RNs	59	28	53
RPNs	48	103	93
RTs	0	0	0
SLPs	0	0	0

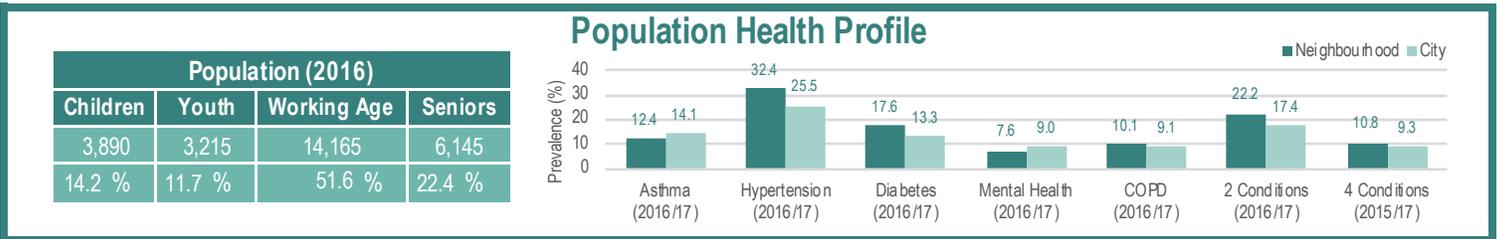
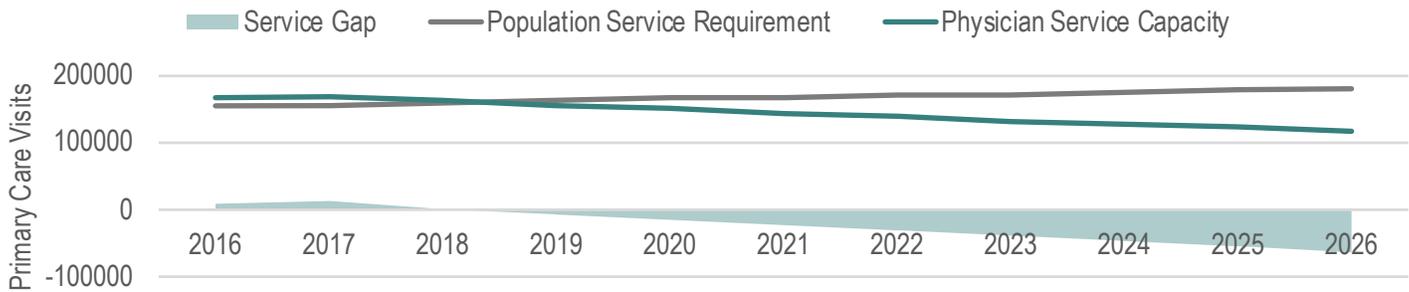
Number of Comprehensive Primary Care Physicians	
2016	36
2017	32

	2017	2018	2019	2020	2021	2022	2023
Comprehensive Care Physicians' Safe Service Capacity	133,094	141,514	115,323	126,644	91,927	92,087	88,837
Comprehensive Care Physicians' At-Risk Service Capacity	90,046	73,542	91,649	72,244	98,877	90,633	85,799
Non-Comprehensive Care Physicians' Service Capacity	1,460						
Total Service Capacity	224,600	216,516	208,432	200,348	192,264	184,180	176,096



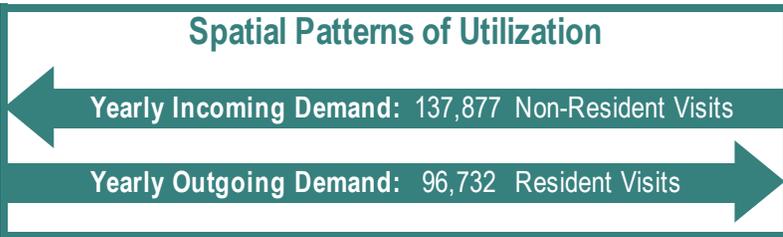
Primary Care Workforce Planning

Neighbourhood Profile: Tam O'Shanter-Sullivan



Year	Population Estimates (Low-High)	Estimated Yearly Growth
2016	27,446	Neigh: 2.69 % - 4.22 % City: 1.60 % - 2.50 %
2021	32,607 - 33,241	
2026	37,768 - 39,035	

Indicator	Neigh. Quintile	City Quintile
Material Deprivation	4	4
Residential Instability	3	5
Dependency	5	1
Ethnic Concentration	5	5



Indicator	Neigh.	City
PEM Attachment (%)	74.7	71.6
ACSC Hospitalization / 100,000	180.4	244.4
Low Urgency ED (%)	65.0	81.5

Number of Comprehensive Primary Care Physicians	Average Weekly Hours Available	Year	Chiropractis	Dieticians	Midwives	NPs	OTs	Optometrists	Pharmacists	PTs	Psychologists	RNs	RPNs	RTs	SLPs
		2016	29	0	0	0	0	0	0	705	79	0	307	1,009	0
2017	27	0	0	0	0	0	87	835	75	0	279	908	0	0	
		2018	0	0	0	0	27	56	225	63	0	343	942	0	0



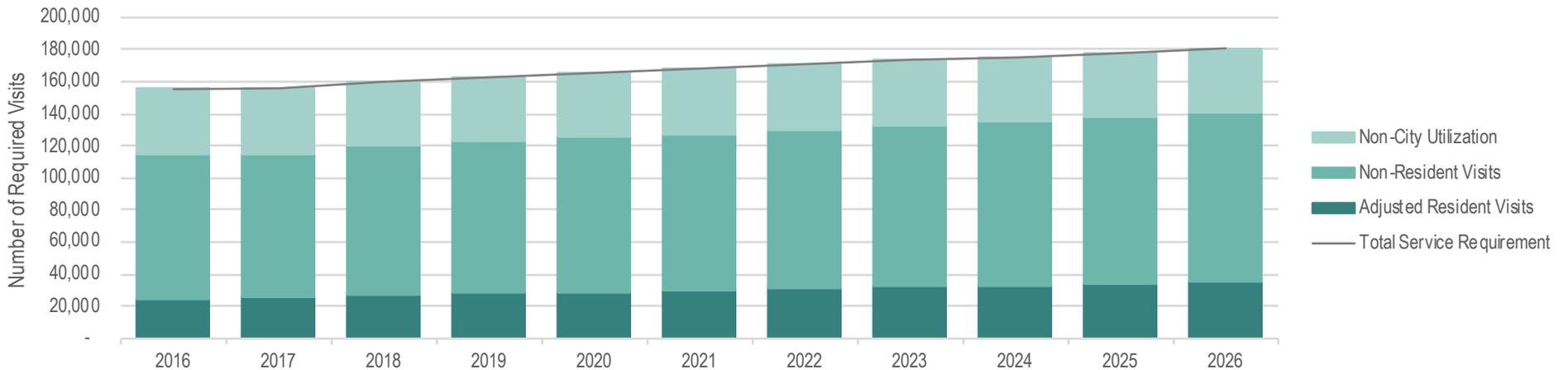
Primary Care Workforce Planning

Service Requirements Module: Tam O'Shanter-Sullivan

Examine the Sources of Service Requirements at a Neighbourhood Level

Total Service Requirements =

- 1 - **Resident Visits:** Number of resident visits expected to be accessed in their neighbourhood of residence based on baseline spatial patterns of utilization
- +
- 2 - **Non-Resident Visits:** Number of non-resident visits expected to be accessed in the neighbourhood based on baseline spatial patterns of utilization
- +
- 3 - **Non-City Utilization:** Number of visits expected to be utilized by non-city residents in the neighbourhood based on baseline spatial patterns of utilization



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Number of Residents	28,538	29,677	30,816	31,955	33,094	34,233	35,371	36,510	37,649	38,788	39,927
Resident Visits	105,931	106,963	114,386	118,614	122,841	127,069	131,296	135,524	139,751	143,979	148,206
Proportion of Care Accessed Within Home Neighbourhood	23.7%										
Resident Visits Adjusted for Spatial Patterns of Utilization	25,106	25,350	27,110	28,111	29,113	30,115	31,117	32,119	33,121	34,123	35,125
Non-Resident Visits	89,930	90,185	93,028	94,577	96,125	97,674	99,223	100,772	102,321	103,869	105,418
Non-City Utilization	40,320										
Total Service Requirement	155,356	155,855	160,457	163,008	165,559	168,110	170,660	173,211	175,762	178,312	180,863



Primary Care Workforce Planning

Service Capacity Module: Tam O'Shanter-Sullivan

Examine the Sources of Service Capacity at a Neighbourhood Level

Total Service Capacity =

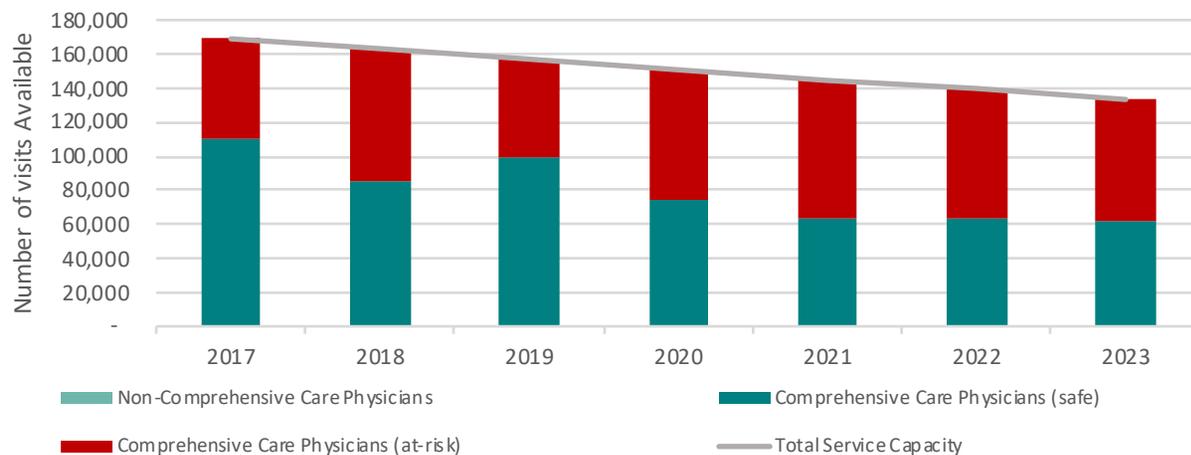
Comprehensive Care Physicians' Safe Service Capacity: Estimated number of services provided by comprehensive care physicians who are not expected to be at risk of exit from the workforce

+

Comprehensive Care Physicians' At-Risk Service Capacity: Estimated number of services provided by comprehensive care physicians who are considered to be at risk of exit from the workforce

+

Service Capacity Generated by Non-Comprehensive Care Physicians: Estimated number of services provided by non-comprehensive care physicians



Allied Health Professionals Average Weekly Hours Available

Profession	2016	2017	2018
Chiroprodists	0	0	0
Dieticians	0	0	0
Midwives	0	0	0
NPs	0	0	0
OTs	0	0	27
Optometrists	0	87	56
Pharmacists	705	835	225
PTs	79	75	63
Psychologists	0	0	0
RNs	307	279	343
RPNs	1,009	908	942
RTs	0	0	0
SLPs	0	0	0

Number of Comprehensive Primary Care Physicians

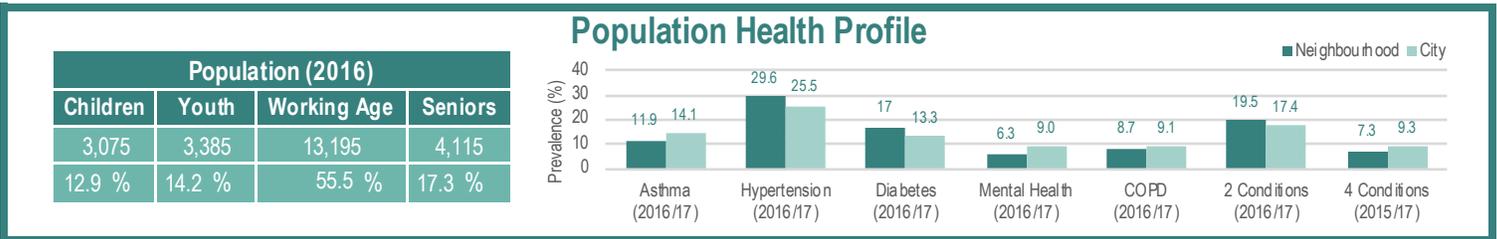
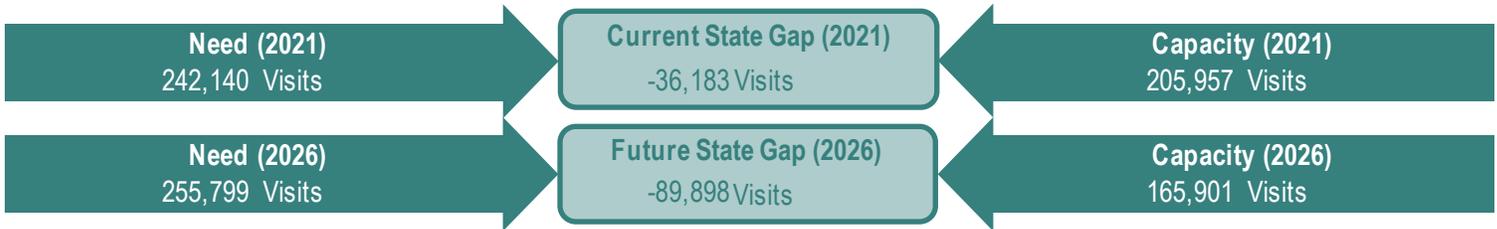
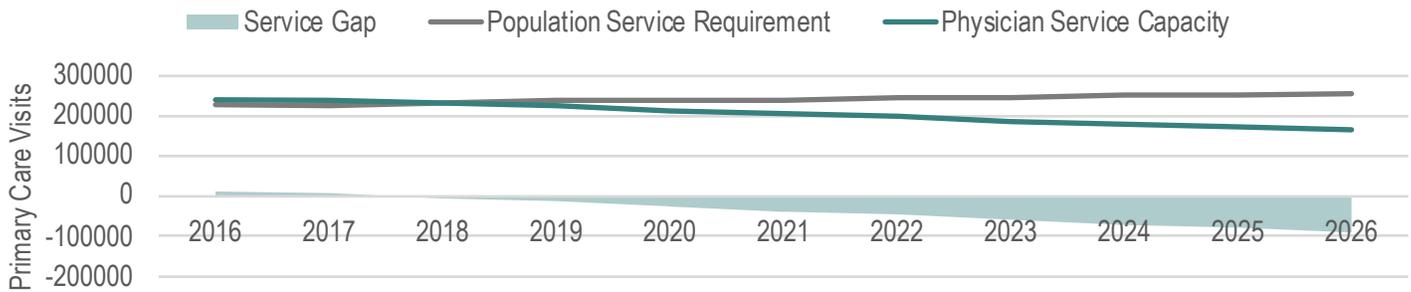
2016	29
2017	27

	2017	2018	2019	2020	2021	2022	2023
Comprehensive Care Physicians' Safe Service Capacity	110,512	85,386	99,768	73,789	63,400	63,421	61,347
Comprehensive Care Physicians' At-Risk Service Capacity	58,444	77,629	57,306	77,344	81,792	75,830	71,963
Non-Comprehensive Care Physicians' Service Capacity	0						
Total Service Capacity	168,956	163,015	157,074	151,133	145,192	139,251	133,310



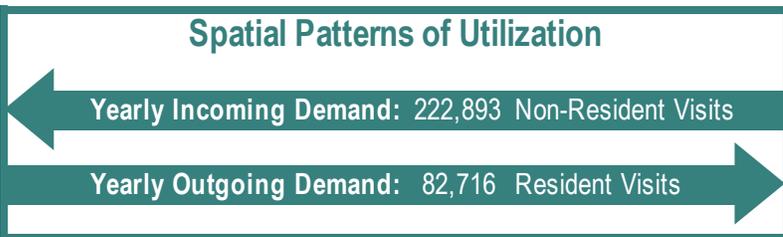
Primary Care Workforce Planning

Neighbourhood Profile: Agincourt South-Malvern West



Year	Population Estimates (Low-High)	Estimated Yearly Growth
2016	23,757	Neigh: 2.88 % - 4.53 % City: 1.60 % - 2.50 %
2021	28,549 - 29,134	
2026	33,340 - 34,510	

Indicator	Neigh. Quintile	City Quintile
Material Deprivation	4	4
Residential Instability	2	5
Dependency	4	1
Ethnic Concentration	5	5



Indicator	Neigh.	City
PEM Attachment (%)	77.1	71.6
ACSC Hospitalization / 100,000	215.7	244.4
Low Urgency ED (%)	54.4	81.5

Number of Comprehensive Primary Care Physicians	Average Weekly Hours Available	Year	Chiropractis	Dieticians	Midwives	NPs	OTs	Optometrists	Pharmacists	PTs	Psychologists	RNs	RPNs	RTs	SLPs
		2016	41	69	17	0	33	13	0	736	156	0	163	467	0
2017	36	69	2	0	61	0	311	661	130	0	155	524	106	9	
2018	36	66	2	0	35	0	273	451	88	0	184	395	90	29	



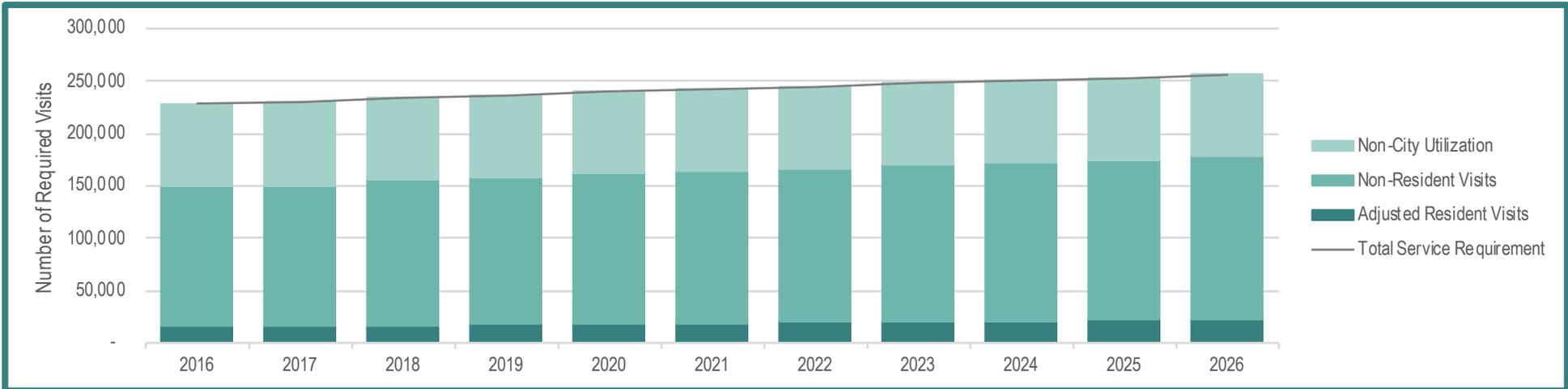
Primary Care Workforce Planning

Service Requirements Module: Agincourt South-Malvern West

Examine the Sources of Service Requirements at a Neighbourhood Level

Total Service Requirements =

- 1 - **Resident Visits:** Number of resident visits expected to be accessed in their neighbourhood of residence based on baseline spatial patterns of utilization
- +
- 2 - **Non-Resident Visits:** Number of non-resident visits expected to be accessed in the neighbourhood based on baseline spatial patterns of utilization
- +
- 3 - **Non-City Utilization:** Number of visits expected to be utilized by non-city residents in the neighbourhood based on baseline spatial patterns of utilization



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Number of Residents	24,355	25,412	26,469	27,525	28,582	29,639	30,696	31,753	32,809	33,866	34,923
Resident Visits	83,861	84,045	91,139	94,778	98,417	102,055	105,694	109,333	112,972	116,611	120,250
Proportion of Care Accessed Within Home Neighbourhood	18.7%										
Resident Visits Adjusted for Spatial Patterns of Utilization	15,682	15,716	17,043	17,723	18,404	19,084	19,765	20,445	21,126	21,806	22,487
Non-Resident Visits	134,602	134,870	138,705	140,756	142,808	144,859	146,911	148,962	151,013	153,065	155,116
Non-City Utilization	78,196										
Total Service Requirement	228,480	228,782	233,944	236,676	239,408	242,140	244,871	247,603	250,335	253,067	255,799

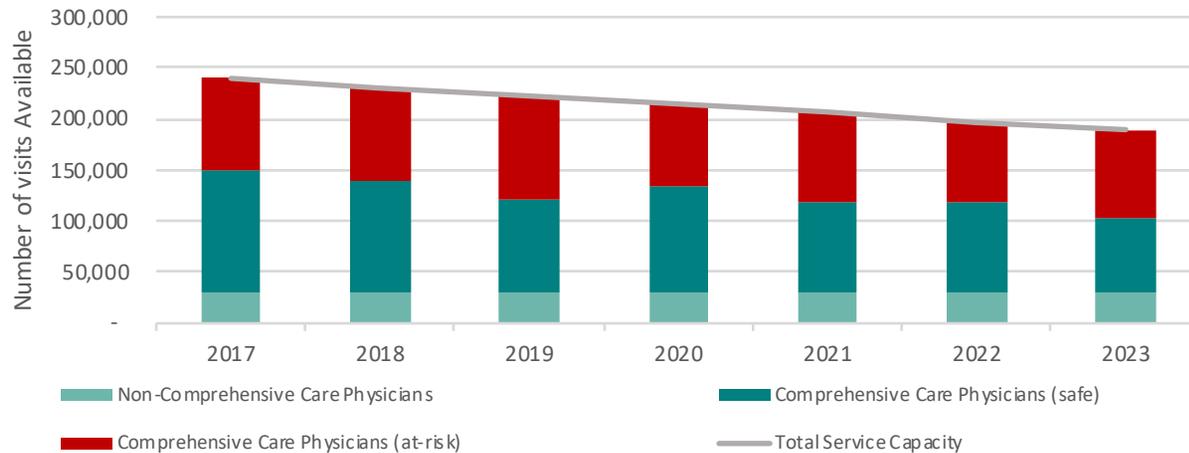
Primary Care Workforce Planning

Service Capacity Module: Agincourt South-Malvern West

Examine the Sources of Service Capacity at a Neighbourhood Level

Total Service Capacity =

- Comprehensive Care Physicians' Safe Service Capacity:** Estimated number of services provided by comprehensive care physicians who are not expected to be at risk of exit from the workforce
- +
- Comprehensive Care Physicians' At-Risk Service Capacity:** Estimated number of services provided by comprehensive care physicians who are considered to be at risk of exit from the workforce
- +
- Service Capacity Generated by Non-Comprehensive Care Physicians:** Estimated number of services provided by non-comprehensive care physicians



Allied Health Professionals Average Weekly Hours Available

Profession	2016	2017	2018
Chiroprodists	69	69	66
Dieticians	17	2	2
Midwives	0	0	0
NPs	33	61	35
OTs	13	0	0
Optometrists	0	311	273
Pharmacists	736	661	451
PTs	156	130	88
Psychologists	0	0	0
RNs	163	155	184
RPNs	467	524	395
RTs	0	106	90
SLPs	17	9	29

Number of Comprehensive Primary Care Physicians

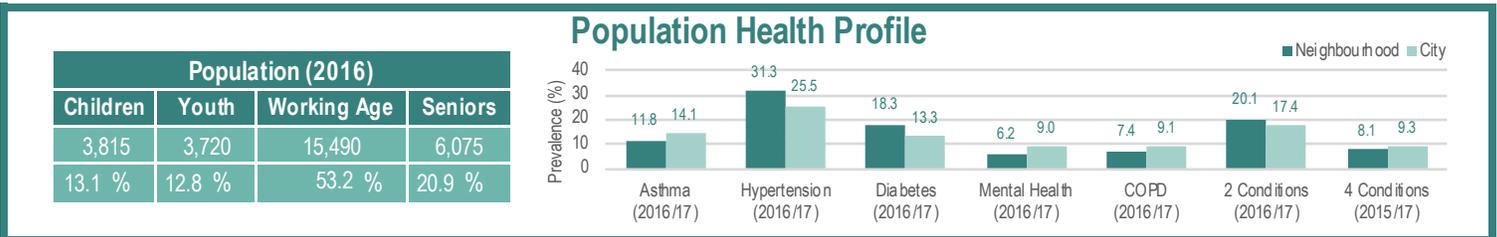
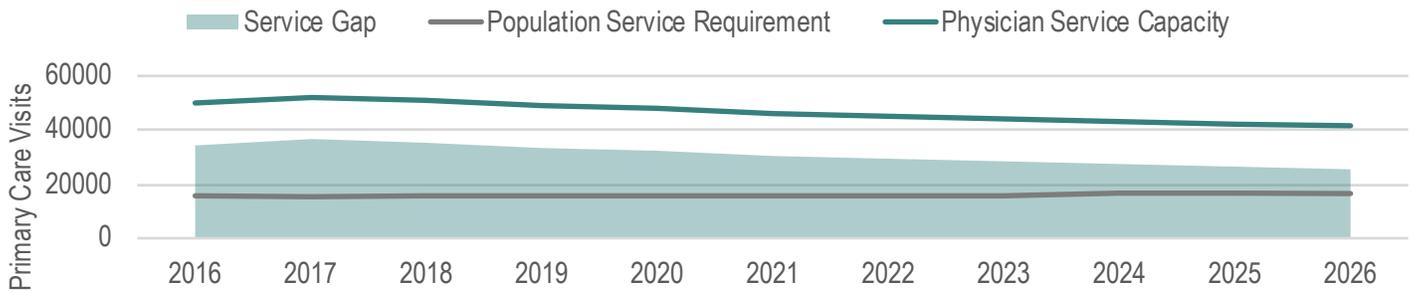
2016	41
2017	36

	2017	2018	2019	2020	2021	2022	2023
Comprehensive Care Physicians' Safe Service Capacity	120,414	108,150	90,739	103,997	88,495	87,373	73,995
Comprehensive Care Physicians' At-Risk Service Capacity	89,385	93,066	101,894	80,128	87,309	80,110	85,531
Non-Comprehensive Care Physicians' Service Capacity	30,153						
Total Service Capacity	239,952	231,369	222,786	214,278	205,957	197,636	189,679



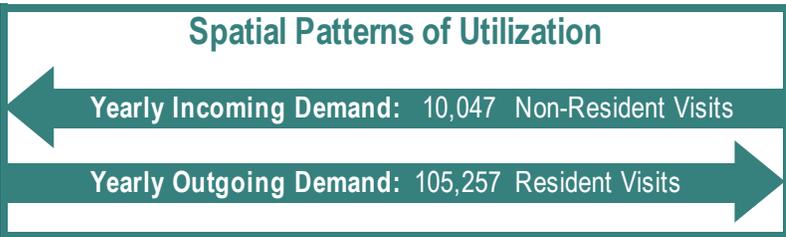
Primary Care Workforce Planning

Neighbourhood Profile: Agincourt North



Year	Population Estimates (Low-High)	Estimated Yearly Growth
2016	29,113	Neigh: 0.10 % - 0.15 % City: 1.60 % - 2.50 %
2021	29,312 - 29,334	
2026	29,512 - 29,555	

Indicator	Neigh. Quintile	City Quintile
Material Deprivation	4	4
Residential Instability	1	5
Dependency	5	1
Ethnic Concentration	5	5



Indicator	Neigh.	City
PEM Attachment (%)	77.5	71.6
ACSC Hospitalization / 100,000	130.2	244.4
Low Urgency ED (%)	51.6	81.5

Number of Comprehensive Primary Care Physicians	Average Weekly Hours Available	Year	Chiropractis	Dieticians	Midwives	NPs	OTs	Optometrists	Pharmacists	PTs	Psychologists	RNs	RPNs	RTs	SLPs
		2016	9	48	17	0	0	17	0	358	95	0	385	917	0
2017	8	52	16	0	0	0	178	438	107	0	368	900	0	0	
2018	8	53	0	0	0	0	147	252	176	0	387	967	0	0	



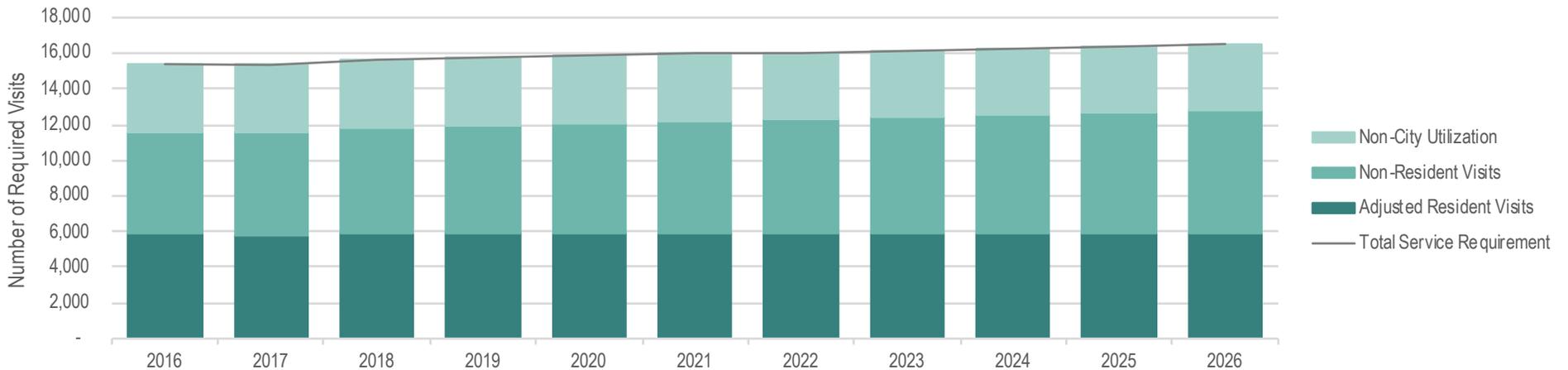
Primary Care Workforce Planning

Service Requirements Module: Agincourt North

Examine the Sources of Service Requirements at a Neighbourhood Level

Total Service Requirements =

- 1 - **Resident Visits:** Number of resident visits expected to be accessed in their neighbourhood of residence based on baseline spatial patterns of utilization
- +
- 2 - **Non-Resident Visits:** Number of non-resident visits expected to be accessed in the neighbourhood based on baseline spatial patterns of utilization
- +
- 3 - **Non-City Utilization:** Number of visits expected to be utilized by non-city residents in the neighbourhood based on baseline spatial patterns of utilization



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Number of Residents	31,225	31,269	31,312	31,356	31,400	31,444	31,487	31,531	31,575	31,618	31,662
Resident Visits	110,447	109,814	110,756	110,910	111,065	111,219	111,374	111,529	111,683	111,838	111,992
Proportion of Care Accessed Within Home Neighbourhood	5.3%										
Resident Visits Adjusted for Spatial Patterns of Utilization	5,854	5,820	5,870	5,878	5,886	5,895	5,903	5,911	5,919	5,927	5,936
Non-Resident Visits	5,768	5,758	5,978	6,083	6,188	6,292	6,397	6,502	6,607	6,711	6,816
Non-City Utilization	3,765										
Total Service Requirement	15,387	15,344	15,613	15,726	15,839	15,952	16,065	16,178	16,291	16,404	16,517



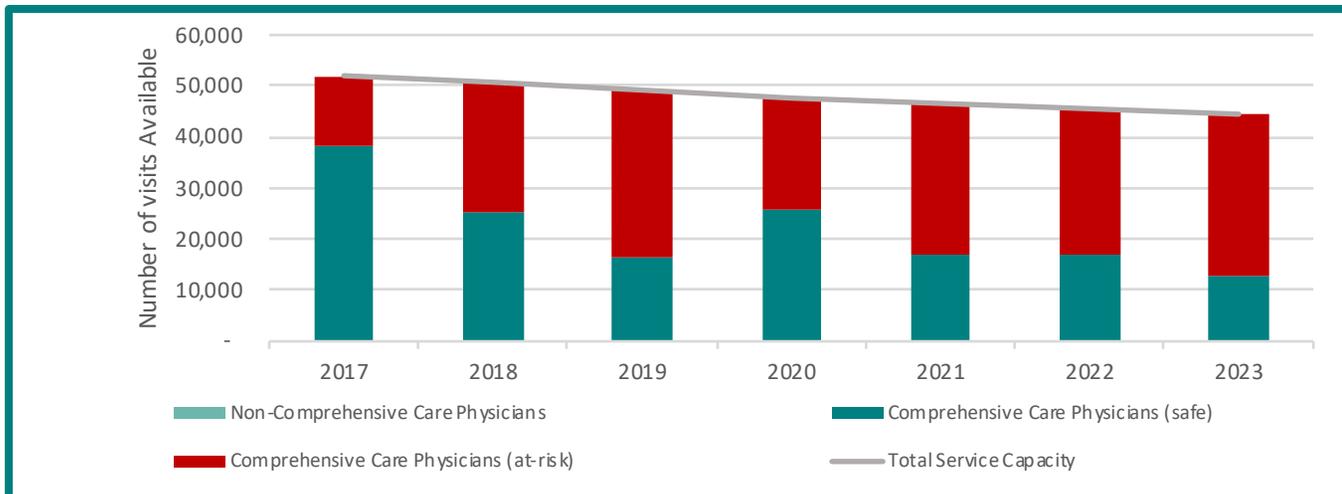
Primary Care Workforce Planning

Service Capacity Module: Agincourt North

Examine the Sources of Service Capacity at a Neighbourhood Level

Total Service Capacity =

- Comprehensive Care Physicians' Safe Service Capacity:** Estimated number of services provided by comprehensive care physicians who are not expected to be at risk of exit from the workforce
- +
- Comprehensive Care Physicians' At-Risk Service Capacity:** Estimated number of services provided by comprehensive care physicians who are considered to be at risk of exit from the workforce
- +
- Service Capacity Generated by Non-Comprehensive Care Physicians:** Estimated number of services provided by non-comprehensive care physicians



Allied Health Professionals			
Average Weekly Hours Available			
Profession	2016	2017	2018
Chiroprodists	48	52	53
Dieticians	17	16	0
Midwives	0	0	0
NPs	0	0	0
OTs	17	0	0
Optometrists	0	178	147
Pharmacists	358	438	252
PTs	95	107	176
Psychologists	0	0	0
RNs	385	368	387
RPNs	917	900	967
RTs	0	0	0
SLPs	0	0	0

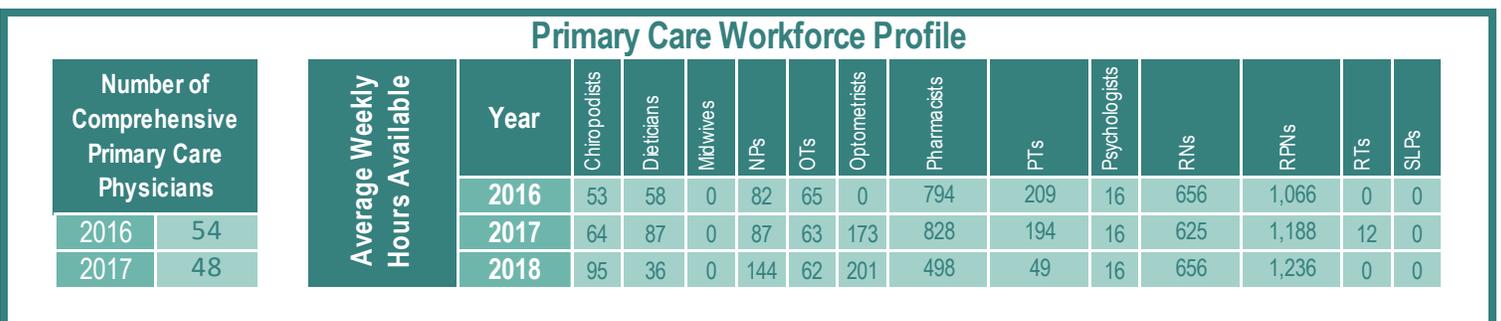
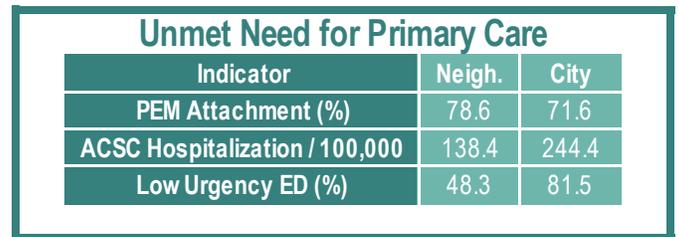
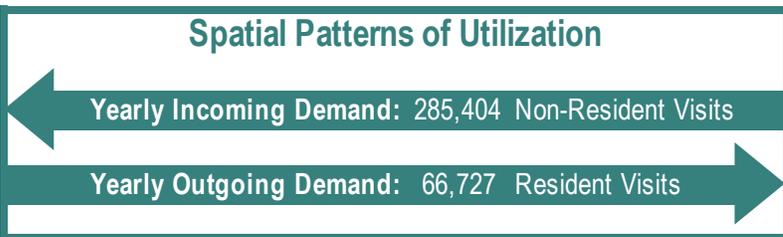
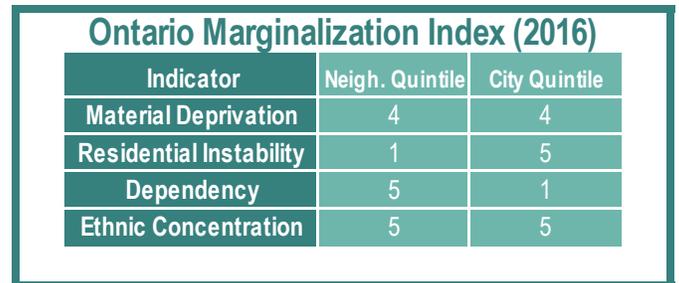
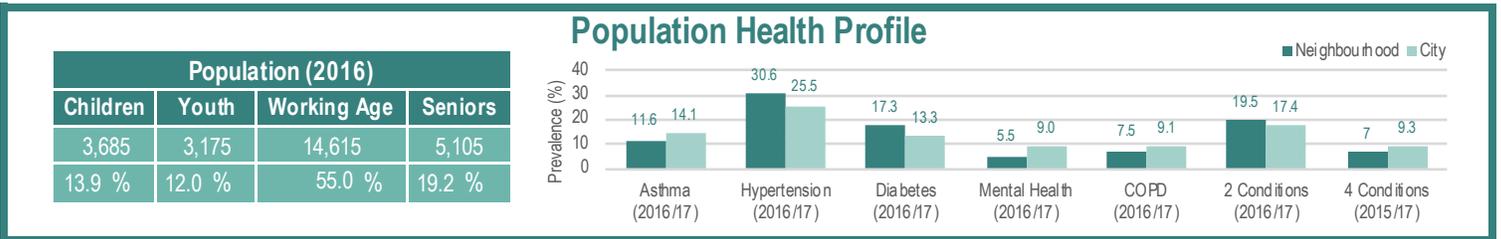
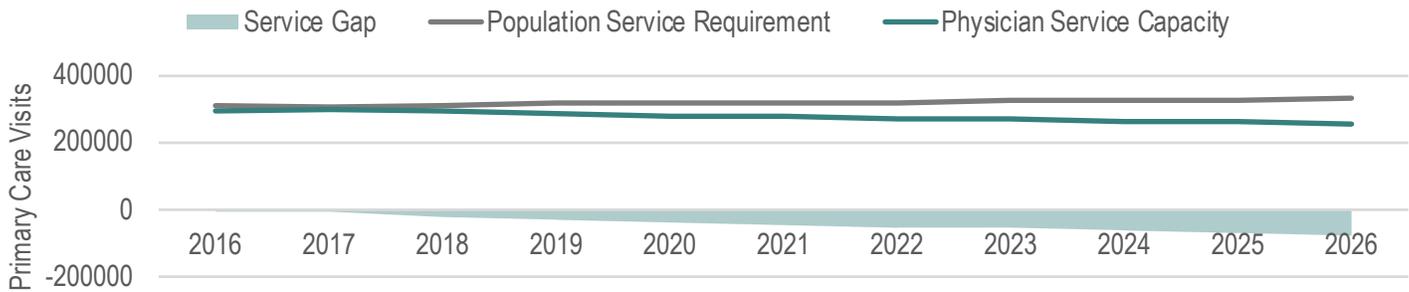
Number of Comprehensive Primary Care Physicians	
2016	9
2017	8

	2017	2018	2019	2020	2021	2022	2023
Comprehensive Care Physicians' Safe Service Capacity	38,467	25,481	16,210	25,579	16,776	17,059	12,964
Comprehensive Care Physicians' At-Risk Service Capacity	13,564	25,147	33,015	22,243	29,663	28,410	31,535
Non-Comprehensive Care Physicians' Service Capacity	0						
Total Service Capacity	52,031	50,628	49,225	47,822	46,439	45,469	44,499



Primary Care Workforce Planning

Neighbourhood Profile: Milliken





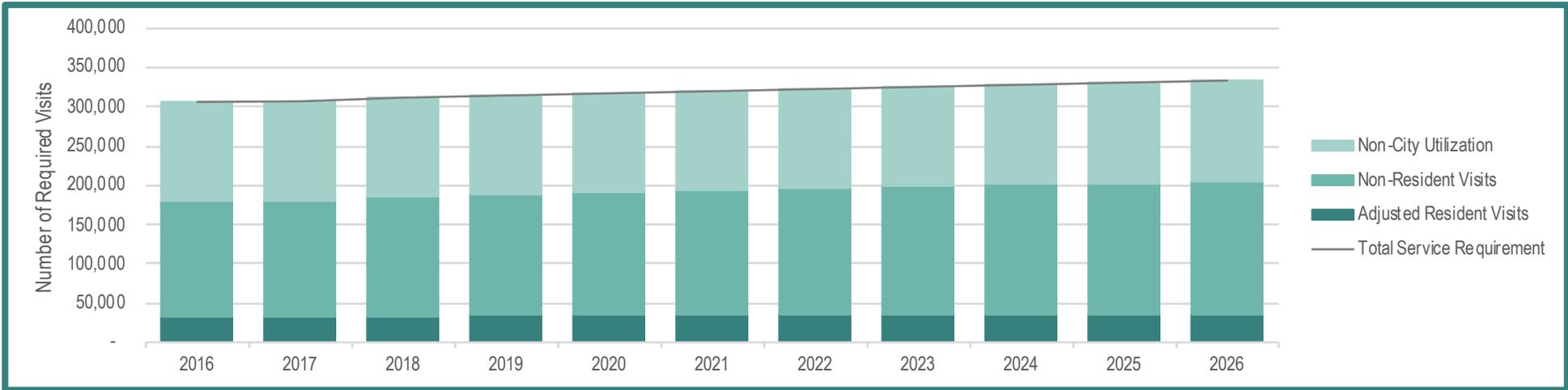
Primary Care Workforce Planning

Service Requirements Module: Milliken

Examine the Sources of Service Requirements at a Neighbourhood Level

Total Service Requirements =

- 1 - **Resident Visits:** Number of resident visits expected to be accessed in their neighbourhood of residence based on baseline spatial patterns of utilization
- +
- 2 - **Non-Resident Visits:** Number of non-resident visits expected to be accessed in the neighbourhood based on baseline spatial patterns of utilization
- +
- 3 - **Non-City Utilization:** Number of visits expected to be utilized by non-city residents in the neighbourhood based on baseline spatial patterns of utilization



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Number of Residents	28,025	28,255	28,486	28,716	28,946	29,177	29,407	29,637	29,867	30,098	30,328
Resident Visits	97,711	96,733	99,317	100,120	100,923	101,726	102,529	103,332	104,135	104,938	105,741
Proportion of Care Accessed Within Home Neighbourhood	34.3%										
Resident Visits Adjusted for Spatial Patterns of Utilization	33,515	33,179	34,066	34,341	34,617	34,892	35,167	35,443	35,718	35,994	36,269
Non-Resident Visits	146,520	146,688	151,220	153,569	155,919	158,269	160,618	162,968	165,318	167,667	170,017
Non-City Utilization	127,334										
Total Service Requirement	307,369	307,201	312,619	315,244	317,869	320,495	323,120	325,745	328,370	330,995	333,620



Primary Care Workforce Planning

Service Capacity Module: Milliken

Examine the Sources of Service Capacity at a Neighbourhood Level

Total Service Capacity =

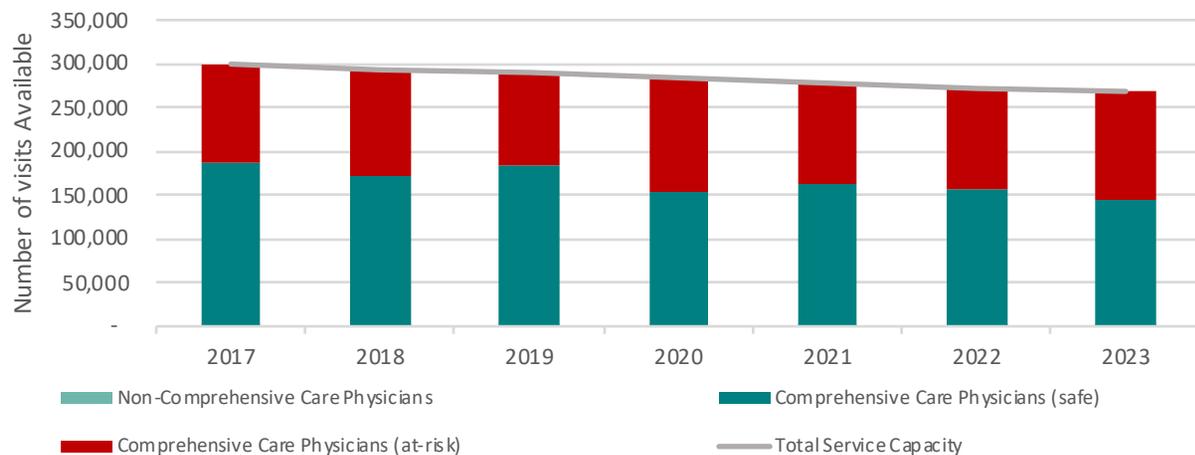
Comprehensive Care Physicians' Safe Service Capacity: Estimated number of services provided by comprehensive care physicians who are not expected to be at risk of exit from the workforce

+

Comprehensive Care Physicians' At-Risk Service Capacity: Estimated number of services provided by comprehensive care physicians who are considered to be at risk of exit from the workforce

+

Service Capacity Generated by Non-Comprehensive Care Physicians: Estimated number of services provided by non-comprehensive care physicians



Allied Health Professionals			
Average Weekly Hours Available			
Profession	2016	2017	2018
Chiroprodists	53	64	95
Dieticians	58	87	36
Midwives	0	0	0
NPs	82	87	144
OTs	65	63	62
Optometrists	0	173	201
Pharmacists	794	828	498
PTs	209	194	49
Psychologists	16	16	16
RNs	656	625	656
RPNs	1,066	1,188	1,236
RTs	0	12	0
SLPs	0	0	0

Number of Comprehensive Primary Care Physicians	
2016	54
2017	48

	2017	2018	2019	2020	2021	2022	2023
Comprehensive Care Physicians' Safe Service Capacity	187,865	172,326	183,963	152,720	161,145	157,408	145,405
Comprehensive Care Physicians' At-Risk Service Capacity	111,625	121,641	104,481	130,201	116,338	115,207	122,872
Non-Comprehensive Care Physicians' Service Capacity	173						
Total Service Capacity	299,663	294,140	288,617	283,094	277,656	272,788	268,450

Toronto Region Primary Care Workforce Planning Toolkit

Technical Notes – Neighbourhood & Subregion Packages

Project Description

The Toronto Region Primary Care Workforce Planning Toolkit is a fit-for-purpose toolkit to support integrated primary care workforce planning in the Toronto Region. The toolkit is the result of a collaboration between the Health Analytics team at Ontario Health Toronto and consultants from the Canadian Health Workforce Network. A partnership with the City of Toronto, as well as extensive consultation with stakeholders, decision-makers, leaders, and frontline workers in Toronto, informed the development of the toolkit.

The toolkit provides a body of evidence around the current (and projected future) states of population health needs and primary care service provision at a neighbourhood level within the City of Toronto. The goal of the toolkit is to support evidence-based decision-making, particularly with regards to deployment of the primary care workforce and other health system resources. The toolkit looks at population needs and workforce capacity at the neighbourhood, sub-region, and whole city levels. It takes into account variations in population needs, workforce service capacity, and existing assets, and also addresses challenges specific to Toronto, such as patient mobility, anticipated rapid population growth, and physician retirement.

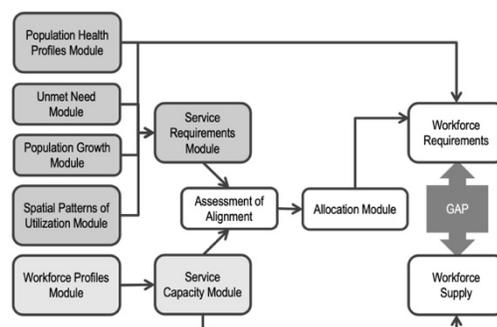
Methodology

The toolkit is composed of a series of modules that assemble information about primary care in the City of Toronto:

- The **Population Health Profiles Module** captures characteristics of the population that impact the need for primary care services.
- The **Population Growth Module** captures neighbourhood-level population growth projections generated by the City of Toronto, allowing us to adjust service requirements to account for anticipated population growth.
- The **Spatial Patterns of Utilization Module** captures a snapshot of primary care utilization patterns and allows us to adjust service requirements to account for patients' care-seeking behaviours.
- The **Unmet Need Module** captures information related to neighbourhood-level unmet healthcare need, which can contribute to an adjustment of service requirements.
- The **Service Requirements Module** estimates primary care service requirements using the CIHI Population Grouping Methodology.
- The **Workforce Profiles Module** captures information about the primary care workforce – including physicians and chiropodists, dieticians, midwives, nurse practitioners, optometrists, occupational therapists, pharmacists, psychologists, physiotherapists, registered nurses, registered practical nurses, respiratory therapists, and speech-language pathologists – practicing in each neighbourhood.
- The **Service Capacity Module** estimates the capacity of the workforce to provide primary care services.

Outputs from these modules are synthesized and summarized in the three static dashboards – Neighbourhood Profiles, Service Requirements, and Service Capacity – that are included in the neighbourhood and subregion packages.

This information is a starting point for local stakeholders wishing to better understand the primary care landscape in their communities. Interpretation of these outputs should consider the local context (factors related to both the community and the local workforce). Engagement and consultation with local stakeholders and frontline healthcare providers are essential parts of the planning process.



Definitions

Sub-Regions: Smaller geographic planning regions within Ontario Regions, developed to help better understand and address patient and population needs at the local level. There are 5 central and 6 peripheral sub-regions in the City of Toronto. One sub-region overlaps with a neighbouring Region and only the part of this sub-region located in Toronto has been included in these analyses. More information about sub-regions is available at <http://www.torontocentrallhin.on.ca/forhsps/subregions.aspx>.

Neighbourhoods: The 140 City of Toronto neighbourhoods were built by the Social Development, Finance & Administration department at the City of Toronto using Statistics Canada Census Tracts. More information about neighbourhoods is available at <https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/neighbourhood-profiles/>.

Comprehensive care physician: Primary care physicians who provide comprehensive care according to the algorithm developed at ICES (<https://www.cmajopen.ca/content/5/4/E856>).

Non-comprehensive care physician: Primary care physicians who practice less than 44 days per year or who otherwise do not meet the criteria to be characterized as providing comprehensive primary care according to the algorithm developed at ICES (<https://www.cmajopen.ca/content/5/4/E856>).

Individual-level Service Requirements: Predicted number of visits to a primary care physician based on clinical and demographic profiles generated by the CIHI Population Grouping Methodology (https://www.cihi.ca/sites/default/files/document/infosheet_popgroupmethod_en_web_0.pdf).

Neighbourhood-level Service Requirements: Neighbourhood-level service requirements are a function of the number of visits to a primary care physician required by neighbourhood residents and by residents of other neighbourhoods in the City, adjusted for spatial patterns of utilization, along with the number of visits required by patients from outside the City of Toronto and an estimate of unmet need.

Total Service Capacity: Neighbourhood-level service capacity is a function of the estimated number of visits provided by comprehensive care physicians who are not expected to exit the workforce, plus the estimated number of visits provided by comprehensive care physicians who are considered to be at risk of retirement, plus the estimated number of visits provided by non-comprehensive care physicians.

Physician Service Capacity: Physician service capacity is estimated on an individual level (based on the total number of visits provided in 2017 (from IPDB)) with adjustment for age-based changes in workload (from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6516703/>) and aggregated to the neighbourhood level.

At-risk Service Capacity: Visits associated with physicians whose age-based risk of retirement is at least 20%.

Allied Health Provider: Allied health providers include Chiropractors, Dietitians, Midwives, Nurse Practitioners, Optometrists, Occupational Therapists, Pharmacists, Psychologists, Physiotherapists, Registered Nurses, Registered Practical Nurses, Respiratory Therapists, and Speech-Language Pathologists.

Primary Care Activities: Activities relating directly to primary care include General Service Provision, Continuing Care, Comprehensive Primary Care, Chronic Disease Prevention and Management, Public Health, Mental Health and Addiction, Primary Maternity Care, Geriatric Care, Infectious Disease Prevention and Control, and Palliative Care.

Average Weekly Hours Available: The average weekly hours of direct professional services in activities identified as relating directly to primary care, estimated based on past hours worked. Note that this estimate represents normal hours of service that the workforce undertook, not "potential" or "extra" available hours. These are descriptive estimates, not projections, and may not represent future workforce service capacity.

Sources of Data

- **Population Health Profiles:** Ontario Community Health Profiles Partnership (OCHPP)
- **Ontario Marginalization Index:** OCHPP
- **Population Growth:** City of Toronto Planning Department
- **Unmet Need:** OCHPP
- **Spatial Patterns of Utilization:** Utilization Matrix generated using data from ICES through an AHRQ request
- **Service Requirements:** CIHI Population Grouping Methodology outputs provided by the Ontario Ministry of Health
- **Primary Care Workforce Profile & Service Capacity (Physicians):** ICES Physician Database (IPDB) accessed through OCHPP
- **Primary Care Workforce Profile & Service Capacity (Other Health Professionals):** Health Professions Database (HPDB) outputs provided by the Ontario Ministry of Health

Assumptions

Service requirements are estimated assuming a Medium population growth scenario and a 10-year horizon.

We assume linear residential development and population growth between the base year and the horizon year.

In our baseline scenario, we assume that new residents of a neighbourhood will have a similar profile and service requirements to those currently residing within the neighbourhood.

We adjust for population mobility using a snapshot of spatial patterns of utilization observed in FY 2017/18.

We assume that providers' age-based changes in workload and retirement probabilities will be consistent with those observed in comprehensive primary care physicians practicing in Ontario between 1992 and 2013 (from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6516703/>).

Limitations

Neighbourhood geographies are not specifically designed for primary care health workforce planning.

Some neighbourhoods are split between subregions. In these cases, neighbourhoods have been assigned to a single subregion as follows:

Neighbourhood Name (Number)	Split Between Sub-Regions	Assigned To
Kingsview Village-The Westway (6)	North Etobicoke Malton West Woodbridge & North York West	North Etobicoke Malton West Woodbridge
Willowridge-Martingrove-Richview (7)	North Etobicoke Malton West Woodbridge & North York West	North Etobicoke Malton West Woodbridge
Islington-City Centre West (14)	South Etobicoke & West Toronto	South Etobicoke
Victoria Village (43)	North York Central & East Toronto	East Toronto
Leaside-Bennington (56)	North Toronto & Mid-East Toronto	North Toronto
South Riverdale (70)	Mid-East Toronto & East Toronto	East Toronto
Waterfront Communities-The Island (77)	Mid-West Toronto & Mid-East Toronto	Mid-East Toronto
Yonge-St.Clair (97)	Mid-West Toronto & North Toronto	North Toronto
Clairlea-Birchmount (120)	East Toronto & Scarborough South	East Toronto
Birchcliffe-Cliffside (122)	East Toronto & Scarborough South	East Toronto

Sub-Region boundaries do not equate to Ontario Health Team (OHT) boundaries, but are used as a proxy to show the approximate catchment area served by OHTs.

Unmet need is currently not accounted for in the estimate of Service Requirements. A process to define quantitative estimates of unmet need through engagement with local stakeholders is in development for operationalization during the next phase of planning.

Estimates of service capacity for physicians are in *visits*, while estimates of service capacity for allied health providers are in *hours per week*.

The information in the HPDB was provided on an "as-is" basis. The data were originally obtained by the Ministry of Health directly from health regulatory Colleges. The Ministry therefore cannot and does not warrant or represent that the information is accurate, complete, reliable or current.

Spatial patterns of utilization and the primary care workforce are not independent; there is an interaction and observed patterns can change over time. For more information about the neighbourhood- and sub-region-level spatial patterns of utilization methodology, results, and visualizations, please contact Ontario Health Toronto.

Due to the data lags associated with the use of administrative data for planning, the most recent year of data input into this planning exercise is for FY 2018/19 and trends that have since emerged are not reflected in our analysis.

Our workforce model projects forward current capacity available within the system and does not model the impact of entry of new health care providers into the workforce. The neighbourhood-level gaps between service capacity and service requirements illustrated in our outputs can be used to identify neighbourhoods where additional resources are required to meet primary care needs.

Abbreviations

ACSC – Ambulatory Care Sensitive Condition
AHRQ – Applied Health Research Question
CIHI – Canadian Institute for Health Information
COPD – Chronic Obstructive Pulmonary Disease
ED – Emergency Department
FY – Fiscal Year
NP – Nurse Practitioner
OCHPP – Ontario Community Health Profiles Partnership
OHT – Ontario Health Teams
OT – Occupational Therapist
PEM – Patient Enrolment Model
PT – Physiotherapist
RN – Registered Nurse
RPN – Registered Practical Nurse
RT – Respiratory Therapist
SLP – Speech & Language Pathologist

Contact

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V1 May 2022