

Asthma Emergency Department Visit Crude Rates

		Asthma Emergency Department Visit Crude Rates (per 100 Asthma Prevalence)																					
Sex	Age Group	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	2024*
All	All	3.99	3.87	3.74	3.41	2.88	2.68	2.45	2.22	2.04	1.98	1.76	1.85	1.69	1.58	1.62	1.47	1.42	0.57	0.81	1.28	1.22	1.21
	0-4	12.45	13.04	14.02	12.80	10.90	10.97	9.27	9.04	8.24	8.50	7.43	8.49	7.62	7.78	8.53	8.75	8.85	1.94	7.95	11.53	9.37	8.78
	5-9	3.91	4.22	4.84	4.47	4.02	3.65	3.82	3.37	3.45	3.24	2.99	3.62	2.99	2.86	2.94	2.68	2.63	0.69	1.46	3.65	3.47	3.31
	10-14	2.37	2.19	2.30	2.08	1.93	1.79	1.83	1.67	1.70	1.56	1.43	1.69	1.52	1.39	1.43	1.25	1.31	0.41	0.65	1.29	1.18	1.40
	15-19	3.30	2.79	2.70	2.26	1.91	1.76	1.62	1.40	1.26	1.31	1.18	1.30	1.25	1.26	1.16	1.18	1.12	0.49	0.63	0.93	0.82	0.84
	20-29	4.88	4.31	3.93	3.46	2.79	2.54	2.24	1.89	1.67	1.52	1.33	1.31	1.24	1.10	1.13	1.02	1.01	0.53	0.64	0.86	0.83	0.81
	30-39	4.13	4.04	3.75	3.70	3.11	2.85	2.69	2.45	2.22	2.05	1.84	1.80	1.63	1.37	1.40	1.27	1.22	0.60	0.62	0.80	0.81	0.85
	40-49	3.35	3.46	2.98	2.98	2.52	2.39	2.21	2.05	1.95	1.94	1.75	1.73	1.64	1.48	1.58	1.31	1.32	0.70	0.75	1.00	0.99	1.07
	50-59	2.94	2.91	2.60	2.45	2.13	1.92	1.84	1.67	1.51	1.57	1.44	1.41	1.36	1.28	1.38	1.18	1.15	0.57	0.60	0.86	0.93	0.97
	60-69	2.52	2.45	2.03	2.02	1.70	1.68	1.47	1.41	1.31	1.33	1.21	1.26	1.22	1.13	1.17	1.06	0.98	0.42	0.49	0.73	0.79	0.83
	70-79	2.00	2.07	1.81	1.53	1.47	1.38	1.20	1.25	1.13	1.22	1.16	1.12	1.13	1.11	1.07	0.96	0.93	0.41	0.46	0.68	0.77	0.77
80-89	1.76	1.81	1.65	1.46	1.20	1.25	1.01	1.12	0.99	0.99	0.92	1.09	1.06	1.09	1.09	1.04	1.01	0.46	0.49	0.70	0.81	0.91	
90-99	1.79	1.63	1.24	0.99	1.01	0.98	0.83	0.87	0.67	0.85	0.82	0.88	0.79	1.03	1.02	0.94	0.81	0.35	0.36	0.49	0.76	0.70	
Female	All	3.89	3.76	3.55	3.22	2.78	2.59	2.39	2.21	2.05	1.99	1.78	1.88	1.73	1.62	1.66	1.52	1.49	0.62	0.82	1.28	1.25	1.26
	0-4	10.54	11.16	11.84	10.82	9.41	8.98	7.64	7.67	7.07	7.13	6.25	6.91	6.33	6.70	7.11	7.66	7.59	1.46	6.61	10.12	8.21	7.29
	5-9	3.36	3.55	4.06	3.67	3.32	3.16	3.22	2.85	3.01	2.86	2.48	3.06	2.49	2.45	2.44	2.38	2.33	0.56	1.22	3.21	3.10	2.99
	10-14	2.39	2.22	2.24	2.04	1.84	1.80	1.76	1.66	1.68	1.55	1.43	1.84	1.54	1.47	1.48	1.25	1.48	0.47	0.72	1.30	1.24	1.44
	15-19	4.18	3.69	3.55	2.96	2.52	2.22	2.04	1.88	1.65	1.64	1.51	1.75	1.68	1.67	1.56	1.60	1.56	0.69	0.85	1.23	1.12	1.14
	20-29	5.08	4.41	4.22	3.77	3.09	2.84	2.64	2.20	2.02	1.84	1.64	1.66	1.54	1.40	1.46	1.33	1.35	0.66	0.82	1.18	1.15	1.08
	30-39	4.36	4.24	3.93	3.63	3.18	2.93	2.80	2.59	2.32	2.24	1.96	2.00	1.85	1.57	1.62	1.49	1.46	0.72	0.78	1.03	1.03	1.12
	40-49	3.62	3.71	3.07	3.11	2.73	2.55	2.40	2.18	2.11	2.11	1.92	1.92	1.77	1.63	1.72	1.41	1.40	0.73	0.84	1.14	1.08	1.20
	50-59	3.21	3.19	2.80	2.50	2.24	2.03	1.96	1.84	1.68	1.69	1.58	1.53	1.51	1.37	1.48	1.26	1.25	0.58	0.60	0.93	1.04	1.08
	60-69	2.67	2.67	2.20	2.18	1.86	1.85	1.62	1.59	1.48	1.49	1.35	1.38	1.32	1.27	1.29	1.17	1.09	0.46	0.55	0.78	0.84	0.90
	70-79	2.17	2.29	2.02	1.65	1.68	1.58	1.35	1.44	1.30	1.39	1.33	1.31	1.26	1.24	1.22	1.13	1.10	0.45	0.52	0.76	0.86	0.90
80-89	1.99	1.94	1.80	1.64	1.29	1.34	1.17	1.30	1.07	1.16	1.04	1.21	1.21	1.27	1.25	1.25	1.17	0.52	0.56	0.82	0.94	1.02	
90-99	1.88	1.80	1.16	1.05	1.00	1.03	0.81	1.01	0.69	0.83	0.92	0.92	0.87	1.04	1.10	1.11	0.78	0.32	0.42	0.56	0.89	0.89	
Male	All	4.11	3.99	3.97	3.62	2.98	2.78	2.51	2.23	2.04	1.97	1.73	1.83	1.65	1.52	1.57	1.42	1.35	0.52	0.80	1.28	1.19	1.15
	0-4	13.63	14.21	15.37	14.02	11.83	12.20	10.27	9.90	8.98	9.36	8.18	9.49	8.43	8.47	9.44	9.45	9.66	2.24	8.81	12.48	10.17	9.80
	5-9	4.29	4.67	5.36	5.01	4.48	3.97	4.22	3.72	3.74	3.49	3.32	4.00	3.33	3.14	3.27	2.88	2.83	0.77	1.62	3.94	3.72	3.54
	10-14	2.35	2.17	2.35	2.12	1.99	1.78	1.88	1.68	1.72	1.57	1.42	1.58	1.51	1.33	1.40	1.26	1.20	0.36	0.60	1.28	1.14	1.37
	15-19	2.56	2.06	2.02	1.70	1.43	1.40	1.29	1.04	0.97	1.07	0.93	0.97	0.94	0.96	0.87	0.87	0.80	0.34	0.47	0.71	0.61	0.62
	20-29	4.62	4.19	3.58	3.11	2.47	2.23	1.87	1.60	1.36	1.25	1.07	1.01	1.00	0.87	0.86	0.78	0.74	0.43	0.50	0.61	0.59	0.59
	30-39	3.78	3.73	3.46	3.80	2.98	2.72	2.52	2.23	2.06	1.79	1.69	1.54	1.35	1.13	1.13	1.03	0.97	0.49	0.45	0.59	0.60	0.62
	40-49	2.90	3.05	2.84	2.78	2.19	2.13	1.91	1.86	1.69	1.67	1.47	1.44	1.43	1.25	1.37	1.16	1.19	0.66	0.61	0.79	0.87	0.91
	50-59	2.47	2.43	2.25	2.35	1.94	1.73	1.65	1.39	1.23	1.36	1.21	1.23	1.14	1.14	1.21	1.05	0.99	0.56	0.60	0.74	0.75	0.79
	60-69	2.28	2.10	1.76	1.76	1.44	1.40	1.21	1.11	1.01	1.05	0.97	1.06	1.04	0.91	0.98	0.88	0.79	0.37	0.40	0.66	0.72	0.72
	70-79	1.76	1.74	1.48	1.35	1.14	1.06	0.96	0.96	0.86	0.93	0.89	0.81	0.90	0.88	0.84	0.67	0.66	0.34	0.36	0.56	0.62	0.55
80-89	1.35	1.57	1.37	1.13	1.03	1.07	0.73	0.80	0.84	0.71	0.69	0.87	0.80	0.79	0.80	0.68	0.72	0.35	0.35	0.49	0.60	0.72	
90-99	1.54	1.15	1.44	0.81	1.04	0.86	0.87	0.52	0.61	0.90	0.55	0.79	0.60	1.02	0.81	0.54	0.90	0.41	0.23	0.33	0.49	0.29	

Asthma Emergency Department Visit Crude Rates (cont'd)

	Asthma Emergency Department Visit Crude Rates (per 100 Asthma Prevalence)																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	2024*
Material Resources Quintile[†]																						
Q1 (least marginalized)	2.69	2.88	2.77	2.50	2.08	1.89	1.84	1.65	1.52	1.50	1.25	1.32	1.21	1.15	1.19	1.09	1.07	0.41	0.62	1.03	0.95	0.94
Q2	3.28	3.27	3.14	2.85	2.37	2.18	2.09	1.92	1.76	1.70	1.49	1.49	1.36	1.28	1.32	1.21	1.22	0.45	0.72	1.16	1.08	1.04
Q3	3.87	3.66	3.56	3.23	2.66	2.54	2.39	2.15	1.95	1.88	1.68	1.80	1.63	1.49	1.53	1.40	1.32	0.53	0.73	1.24	1.15	1.16
Q4	4.76	4.30	4.16	3.77	3.21	3.05	2.52	2.34	2.14	2.03	1.81	2.09	1.90	1.78	1.83	1.63	1.48	0.61	0.84	1.31	1.28	1.28
Q5 (most marginalized)	5.27	4.99	4.87	4.54	3.97	3.67	3.12	2.80	2.63	2.57	2.36	2.52	2.31	2.15	2.22	2.03	1.96	0.83	1.12	1.62	1.62	1.62
Rurality[†]																						
Urban	3.60	3.52	3.37	3.06	2.61	2.42	2.20	2.00	1.84	1.81	1.61	1.69	1.55	1.46	1.50	1.37	1.31	0.53	0.76	1.19	1.14	1.12
Rural	6.92	6.74	6.74	6.24	5.14	4.86	4.53	4.14	3.84	3.50	3.13	3.44	3.12	2.77	2.81	2.52	2.60	0.99	1.29	2.17	2.01	2.01
Local Health Integration Network																						
1. Erie St. Clair	4.12	3.47	3.29	3.03	2.67	2.50	2.17	1.94	1.80	1.73	1.54	1.63	1.50	1.36	1.18	1.20	1.12	0.58	0.73	1.02	0.76	1.00
2. South West	6.47	5.75	5.91	5.34	4.63	4.38	3.88	3.35	3.07	2.77	2.40	2.58	2.38	2.34	2.51	2.20	2.17	0.85	1.19	1.90	1.82	1.90
3. Waterloo Wellington	4.78	4.42	4.03	3.54	3.18	2.67	2.46	2.18	2.06	2.05	1.72	1.88	1.63	1.48	1.52	1.38	1.31	0.58	0.77	1.20	1.09	1.17
4. Hamilton Niagara Haldimand Brant	4.06	3.95	3.66	3.24	2.76	2.59	2.31	2.07	1.90	1.90	1.67	1.75	1.67	1.50	1.49	1.38	1.30	0.65	0.86	1.31	1.22	1.23
5. Central West	3.03	3.01	2.91	2.68	2.25	2.10	1.97	1.72	1.59	1.61	1.33	1.59	1.48	1.40	1.68	1.47	1.38	0.42	0.70	1.18	1.10	1.15
6. Mississauga Halton	2.73	2.65	2.71	2.42	2.05	1.81	1.67	1.69	1.43	1.34	1.29	1.32	1.14	1.07	1.14	0.99	1.02	0.37	0.57	1.00	0.90	0.97
7. Toronto Central	3.16	3.22	3.21	3.06	2.64	2.41	2.18	2.02	1.89	1.86	1.69	1.72	1.51	1.39	1.44	1.28	1.27	0.43	0.63	1.03	1.08	1.01
8. Central	2.41	2.58	2.43	2.17	1.78	1.72	1.57	1.48	1.36	1.35	1.29	1.30	1.23	1.20	1.21	1.08	1.00	0.36	0.61	0.99	1.01	0.90
9. Central East	3.64	3.73	3.47	3.14	2.79	2.54	2.44	2.16	2.07	1.98	1.76	1.81	1.67	1.50	1.51	1.38	1.27	0.54	0.74	1.10	1.11	1.10
10. South East	5.25	5.28	5.31	5.31	4.17	3.94	3.26	3.11	2.93	2.87	2.47	2.57	2.53	2.26	2.53	2.18	2.18	0.95	1.17	1.81	1.60	1.47
11. Champlain	4.33	4.15	4.14	3.59	2.81	2.74	2.64	2.49	2.23	2.21	1.91	2.05	1.76	1.70	1.71	1.66	1.65	0.63	0.92	1.50	1.43	1.31
12. North Simcoe Muskoka	5.59	5.12	4.83	4.50	3.63	3.35	2.97	2.56	2.44	2.24	2.12	2.15	1.97	1.81	1.73	1.63	1.49	0.65	0.85	1.37	1.29	1.26
13. North East	6.55	6.46	6.14	5.79	4.93	4.75	4.32	3.85	3.53	3.32	2.94	3.15	2.88	2.71	2.77	2.51	2.58	1.01	1.33	2.07	2.01	1.84
14. North West	6.73	6.38	6.51	6.46	5.46	4.87	4.83	4.08	3.86	3.83	3.30	3.56	3.34	2.95	2.63	2.36	2.66	1.01	1.39	2.18	2.10	2.31

Asthma Emergency Department Visit Crude Rates (cont'd)

Public Health Unit	Asthma Emergency Department Visit Crude Rates (per 100 Asthma Prevalence)																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	2024*
Public Health Unit																						
Algoma	8.64	8.05	7.70	7.47	6.19	5.90	5.15	4.90	4.27	3.75	3.41	3.98	3.34	3.26	3.86	3.42	3.00	1.08	1.09	1.90	1.85	1.88
Brant	3.58	3.44	3.10	2.96	2.52	2.27	2.19	1.91	1.89	1.89	1.89	2.16	2.17	1.72	1.90	1.75	1.78	0.84	1.13	1.67	1.52	1.43
Durham	2.99	3.07	2.78	2.55	2.24	2.06	2.08	1.70	1.68	1.67	1.39	1.36	1.30	1.20	1.23	1.10	1.00	0.50	0.67	0.93	0.87	0.82
Elgin-St Thomas	4.78	4.21	4.53																			
Grey-Bruce	10.59	8.67	8.76	7.70	7.05	6.49	6.07	5.17	5.44	4.83	4.34	4.74	3.98	3.84	4.19	3.49	3.47	1.19	1.60	2.54	2.30	2.44
Haldimand-Norfolk	4.87	4.42	4.25	3.66	3.07	3.23	2.55	2.49	2.14	2.44	2.15	1.96	2.27	1.78	1.81	1.66	1.68	0.75	1.03	1.76	1.48	1.72
Haliburton Kawartha, Pine Ridge	5.75	5.32	5.25	4.35	3.78	3.38	3.02	2.92	2.62	2.41	2.26	2.49	2.19	1.91	1.85	1.71	1.62	0.71	0.88	1.34	1.23	1.15
Halton	2.92	2.82	2.78	2.51	2.10	1.84	1.56	1.53	1.31	1.21	1.06	1.19	1.02	0.93	0.98	0.95	0.84	0.40	0.59	0.99	0.86	0.83
Hamilton	3.75	3.68	3.56	3.00	2.64	2.47	2.15	1.97	1.96	1.90	1.73	1.77	1.60	1.49	1.58	1.53	1.28	0.66	0.99	1.43	1.38	1.42
Hastings Prince Edward	6.40	6.25	6.25	5.79	4.57	4.24	3.42	3.30	2.78	3.08	2.34	2.40	2.35	2.44	2.47	2.16	2.16	0.90	1.05	1.74	1.62	1.68
Huron	9.34	8.60	8.34																			
Chatham-Kent	5.51	5.07	4.48	3.98	3.26	2.99	2.57	2.26	2.15	1.91	1.85	1.90	1.99	2.00	1.77	1.73	1.75	0.70	0.92	1.42	1.48	1.71
Kingston Frontenac, and Lennox and Addington	4.17	4.24	4.19	4.70	3.53	3.59	2.70	2.73	2.69	2.38	2.29	2.47	2.60	2.19	2.49	2.10	2.17	1.04	1.39	1.99	1.73	1.42
Lambton	5.45	4.58	5.22	4.40	4.15	3.93	3.37	3.03	2.99	2.68	2.26	2.80	2.47	2.11	1.74	1.90	1.69	0.79	1.23	2.07	0.80	1.81
Leeds, Grenville, Lanark	6.74	7.07	6.61	6.35	5.27	4.59	4.55	4.17	3.86	3.55	2.97	3.13	2.71	2.50	2.77	2.49	2.38	0.98	1.07	1.82	1.57	1.46
Middlesex-London	4.25	4.08	4.64	4.17	3.74	3.42	2.94	2.40	2.13	2.00	1.57	1.80	1.72	1.81	1.88	1.71	1.77	0.67	1.10	1.66	1.70	1.63
Niagara	4.82	4.70	4.32	3.79	3.19	2.96	2.76	2.39	2.07	2.10	1.74	1.82	1.74	1.62	1.44	1.28	1.29	0.59	0.71	1.14	1.06	1.05
North Bay Parry Sound	6.57	6.68	6.68	6.46	4.83	4.59	4.11	3.72	3.41	2.95	2.44	2.77	2.42	2.55	2.22	2.19	2.08	0.96	1.10	1.60	1.64	1.66
Northwestern	8.98	9.25	9.70	10.55	8.69	7.68	8.14	6.14	5.80	5.19	4.71	5.27	5.30	4.39	3.85	3.73	3.43	1.19	1.94	3.30	2.84	3.41
Ottawa	3.43	3.17	3.15	2.63	2.07	1.99	1.92	1.91	1.72	1.77	1.43	1.61	1.42	1.38	1.45	1.42	1.46	0.50	0.85	1.34	1.28	1.15
Oxford	8.09	7.24	6.71																			
Peel	2.70	2.70	2.69	2.37	1.99	1.85	1.76	1.64	1.48	1.44	1.29	1.40	1.27	1.20	1.44	1.23	1.23	0.39	0.62	1.10	1.00	1.08
Perth	7.93	6.79	6.56																			
Peterborough	4.51	4.52	3.99	3.76	2.97	3.27	2.52	2.26	2.27	2.22	2.01	2.26	2.00	1.70	1.80	1.50	1.50	0.66	0.66	1.00	0.93	1.15
Porcupine	11.35	11.36	9.75	9.25	7.23	7.33	7.88	6.24	5.83	5.91	5.34	5.52	5.52	4.39	4.64	4.29	4.78	1.75	2.60	4.27	4.20	3.63
Renfrew	8.15	7.13	8.04	7.18	6.07	6.40	6.26	5.09	4.47	4.07	4.20	4.30	3.57	3.60	3.25	2.73	2.56	1.07	1.26	2.65	2.39	2.28
Eastern Ontario	5.05	5.29	5.36	4.90	3.57	3.62	3.32	3.08	2.88	2.92	2.67	2.63	2.17	1.93	1.90	1.96	1.86	0.89	1.02	1.55	1.54	1.42
Simcoe Muskoka	5.45	4.99	4.64	4.33	3.45	3.22	2.92	2.53	2.36	2.22	2.15	2.11	1.99	1.83	1.75	1.61	1.52	0.63	0.86	1.35	1.27	1.23
Sudbury	3.72	3.85	3.81	3.07	3.01	2.95	2.40	2.26	2.17	2.11	1.91	1.97	1.75	1.73	1.70	1.53	1.68	0.73	1.08	1.53	1.47	1.20
Thunder Bay	5.85	5.25	5.25	4.83	4.20	3.76	3.52	3.29	3.11	3.32	2.76	2.92	2.60	2.40	2.17	1.83	2.36	0.94	1.18	1.75	1.82	1.88
Timiskaming	8.10	7.14	7.07	9.43	10.06	8.56	7.62	6.51	5.89	5.90	5.20	4.76	5.12	4.78	4.78	3.87	4.53	1.31	1.89	3.23	2.76	2.91
Waterloo	4.32	4.09	3.63	3.13	2.75	2.41	2.27	1.97	1.73	1.70	1.46	1.61	1.33	1.32	1.33	1.18	1.16	0.54	0.72	1.12	0.93	1.14
Wellington-Dufferin-Guelph	5.28	4.82	4.36	4.25	3.65	3.08	2.82	2.45	2.51	2.45	1.95	2.18	1.92	1.72	1.72	1.64	1.46	0.62	0.85	1.28	1.34	1.21
Windsor-Essex	3.09	2.44	2.15	2.18	1.92	1.80	1.60	1.44	1.27	1.32	1.19	1.14	1.03	0.92	0.83	0.83	0.75	0.48	0.51	0.58	0.55	0.56
York Region	1.98	2.27	2.09	1.85	1.47	1.34	1.19	1.14	1.01	1.01	0.93	0.98	0.88	0.86	0.93	0.82	0.78	0.29	0.49	0.85	0.85	0.75
Toronto	3.11	3.22	3.16	2.97	2.64	2.43	2.26	2.11	1.98	1.92	1.79	1.83	1.68	1.57	1.56	1.42	1.33	0.46	0.71	1.13	1.20	1.16
Southwestern				5.17	4.02	3.85	3.90	3.21	2.89	2.82	2.48	2.41	2.69	2.34	2.50	2.28	1.94	0.87	1.00	1.70	1.56	1.67
Huron Perth				6.97	6.28	6.18	4.78	5.03	4.27	3.38	3.43	3.64	2.87	2.67	3.19	2.61	2.66	1.02	1.35	2.29	2.25	2.67
Canadian Triage and Acuity Scale (CTAS) Score																						
1	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.05	0.07	0.02	0.05	0.11	0.10	0.09
2	0.68	0.81	0.90	0.80	0.73	0.71	0.65	0.62	0.58	0.58	0.54	0.60	0.54	0.52	0.55	0.48	0.43	0.15	0.25	0.42	0.42	0.41
3	2.07	1.98	1.87	1.68	1.39	1.28	1.19	1.07	1.00	0.97	0.86	0.88	0.82	0.75	0.76	0.69	0.69	0.30	0.39	0.58	0.55	0.55
4	0.99	0.88	0.79	0.75	0.61	0.56	0.51	0.43	0.38	0.36	0.30	0.31	0.28	0.25	0.25	0.20	0.19	0.08	0.09	0.14	0.12	0.12
5	0.20	0.17	0.15	0.14	0.10	0.08	0.06	0.05	0.04	0.04	0.03	0.02	0.02	0.02	0.03	0.04	0.04	0.01	0.02	0.03	0.03	0.03

*Reporting period is from April 2003 to March 2025. Data for 2023 and 2024 may be incomplete due to the 2-year algorithm to identify asthma, and numbers are subject to change.

†Ontario Marginalization Index expressed in quintiles used as a proxy measure of socioeconomic status.

‡Rural communities defined as those with fewer than 10,000 people.

Note: Asthma incidence and prevalence with missing LHIN, rurality, or PHU were excluded from the report.

Asthma ED were captured from the main problem diagnosis code in NACRS.

PHU of Elgin and St. Thomas (2231) and Oxford Health Unit (2252) were merged in 2006 onwards at ICES, Ontario and now the PHU is named Southwestern Public Health (4913).

PHU of Huron (2239) and Perth (2254) were merged in 2006 onwards at ICES, Ontario and now the PHU is named Huron Perth Public Health (5183).

Source: This table uses statistics reported by the Ontario Asthma Surveillance Information System (OASIS) and data provided by ICES, Ontario.