

Asthma-Related Hospitalization Crude Rates

	Asthma-Related Hospitalization Crude Rates (per 100 Asthma Prevalence)																									
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020*	2021*
Age Group																										
All	5.15	4.86	4.77	4.70	4.39	4.29	3.49	3.14	3.02	2.80	2.70	2.52	2.54	2.58	2.60	2.62	2.66	2.67	2.80	2.62	2.53	2.54	2.41	2.37	1.69	1.96
0-4	6.63	6.45	6.25	6.14	6.02	6.10	5.63	5.47	5.10	5.11	4.94	4.19	4.36	5.35	4.70	5.28	5.02	4.94	5.67	5.39	5.16	5.20	5.23	5.47	0.83	4.27
5-9	0.90	0.82	0.81	0.81	0.72	0.70	0.62	0.57	0.61	0.65	0.52	0.48	0.48	0.69	0.62	0.67	0.60	0.56	0.75	0.64	0.65	0.66	0.61	0.69	0.16	0.23
10-14	0.62	0.55	0.51	0.49	0.46	0.45	0.29	0.27	0.27	0.30	0.26	0.24	0.24	0.30	0.28	0.30	0.28	0.26	0.37	0.31	0.32	0.30	0.27	0.29	0.14	0.19
15-19	0.77	0.63	0.59	0.62	0.54	0.51	0.40	0.36	0.32	0.28	0.26	0.26	0.26	0.28	0.26	0.25	0.28	0.30	0.34	0.29	0.33	0.31	0.29	0.29	0.20	0.23
20-29	1.12	0.98	0.97	0.96	0.82	0.81	0.60	0.49	0.50	0.43	0.38	0.39	0.38	0.38	0.35	0.34	0.35	0.38	0.36	0.36	0.35	0.39	0.38	0.40	0.31	0.35
30-39	1.81	1.65	1.66	1.67	1.58	1.48	1.11	1.00	0.91	0.89	0.83	0.80	0.77	0.83	0.79	0.83	0.79	0.82	0.83	0.77	0.75	0.72	0.74	0.68	0.56	0.64
40-49	3.10	2.95	2.85	2.93	2.75	2.73	1.94	1.73	1.66	1.54	1.52	1.43	1.52	1.61	1.51	1.51	1.50	1.54	1.54	1.49	1.41	1.43	1.36	1.33	1.07	1.20
50-59	6.71	6.02	6.22	6.10	5.60	5.40	4.05	3.59	3.54	3.24	3.15	3.03	3.05	3.10	3.07	3.07	3.08	3.19	3.18	3.04	2.86	2.75	2.64	2.63	2.05	2.28
60-69	13.71	13.46	13.08	12.68	11.78	11.39	9.15	8.32	7.84	7.02	6.91	6.38	6.39	6.11	6.13	6.16	6.17	6.06	5.99	5.73	5.38	5.34	4.96	4.71	3.63	3.91
70+	25.78	24.62	24.44	24.44	22.96	22.58	19.00	16.82	16.30	14.88	14.49	13.48	13.33	12.72	13.40	13.03	13.35	12.98	13.47	11.96	11.41	11.22	10.13	9.66	6.91	7.51
Sex																										
Female	4.80	4.60	4.63	4.62	4.32	4.27	3.42	3.12	3.05	2.84	2.75	2.58	2.65	2.70	2.76	2.79	2.87	2.90	3.08	2.86	2.79	2.79	2.65	2.60	1.86	2.17
Male	5.56	5.16	4.92	4.80	4.47	4.32	3.57	3.17	2.98	2.75	2.65	2.46	2.43	2.46	2.41	2.43	2.44	2.42	2.50	2.35	2.24	2.27	2.14	2.13	1.52	1.75
Deprivation Quintile[†]																										
Q1 (least marginalized)	3.44	3.40	3.31	3.23	3.07	3.02	2.35	2.06	2.16	2.06	1.92	1.85	1.82	1.89	1.95	1.98	2.06	2.04	2.11	1.97	1.88	1.88	1.78	1.73	1.23	1.41
Q2	4.24	4.04	4.02	4.04	3.77	3.65	2.93	2.66	2.55	2.33	2.29	2.15	2.12	2.26	2.25	2.32	2.32	2.28	2.36	2.18	2.09	2.19	2.00	1.94	1.40	1.67
Q3	5.10	4.75	4.68	4.71	4.28	4.26	3.48	3.10	2.95	2.65	2.59	2.46	2.47	2.53	2.56	2.47	2.55	2.50	2.71	2.51	2.45	2.45	2.32	2.32	1.63	1.83
Q4	5.75	5.43	5.49	5.32	4.96	4.86	4.09	3.79	3.33	3.11	3.00	2.79	2.87	2.74	2.73	2.78	2.73	2.82	3.12	2.92	2.81	2.83	2.66	2.64	1.89	2.28
Q5 (most marginalized)	6.37	5.93	5.69	5.65	5.34	5.25	4.36	3.93	3.82	3.62	3.59	3.29	3.41	3.23	3.23	3.32	3.40	3.45	3.68	3.50	3.42	3.40	3.34	3.31	2.41	2.74
Income Quintile																										
Q1 (lowest)	6.46	6.04	5.84	5.86	5.52	5.46	4.56	4.16	3.81	3.61	3.57	3.24	3.40	3.47	3.42	3.55	3.53	3.59	3.87	3.65	3.61	3.55	3.50	3.42	2.51	2.83
Q2	5.66	5.32	5.22	5.17	4.79	4.76	3.89	3.46	3.30	3.00	2.97	2.73	2.73	2.74	2.78	2.79	2.85	2.92	3.10	2.85	2.79	2.85	2.66	2.63	1.89	2.17
Q3	4.94	4.70	4.74	4.48	4.15	4.01	3.33	3.10	2.85	2.66	2.55	2.40	2.41	2.48	2.51	2.50	2.53	2.52	2.66	2.44	2.35	2.38	2.21	2.20	1.53	1.86
Q4	4.46	4.20	4.02	4.09	3.85	3.71	2.91	2.58	2.67	2.43	2.33	2.23	2.23	2.24	2.26	2.27	2.31	2.28	2.34	2.19	2.07	2.03	1.93	1.91	1.36	1.62
Q5 (highest)	3.94	3.79	3.81	3.63	3.40	3.36	2.68	2.36	2.33	2.18	2.05	1.97	1.94	1.99	2.02	2.04	2.12	2.09	2.00	1.94	1.80	1.89	1.74	1.71	1.22	1.38
Rurality[‡]																										
Urban	4.82	4.57	4.47	4.42	4.12	4.05	3.27	2.95	2.85	2.66	2.56	2.40	2.43	2.47	2.50	2.52	2.57	2.58	2.71	2.52	2.44	2.46	2.34	2.31	1.66	1.94
Rural	7.43	6.84	6.81	6.81	6.40	6.09	5.19	4.60	4.39	3.92	3.88	3.57	3.52	3.58	3.47	3.53	3.48	3.53	3.68	3.55	3.44	3.31	3.09	2.95	1.99	2.21
Local Health Integration Network																										
1. Erie St. Clair	6.38	5.61	5.81	5.45	5.17	5.36	4.37	4.21	3.78	3.55	3.35	3.04	3.22	3.16	3.36	3.43	3.50	3.81	3.54	3.51	3.16	3.03	2.87	3.00	2.34	2.65
2. South West	6.03	5.71	5.45	5.38	4.99	5.20	4.14	3.78	3.33	3.18	2.90	2.70	2.73	2.78	2.83	2.74	3.01	3.05	3.16	3.14	3.07	3.08	2.89	2.70	1.92	2.28
3. Waterloo Wellington	6.02	5.68	5.15	5.44	4.78	4.81	3.25	3.41	3.17	3.04	2.68	2.48	2.38	2.36	2.31	2.41	2.36	2.35	2.63	2.32	2.21	2.36	2.26	1.95	1.35	1.70
4. Hamilton Niagara Haldimand Brant	6.05	5.90	5.91	5.98	5.91	5.41	4.30	3.98	3.86	3.64	3.42	3.19	3.12	3.12	3.19	3.11	3.12	3.10	3.19	2.97	2.79	2.85	2.66	2.72	1.84	2.04
5. Central West	3.76	3.92	3.65	3.70	3.07	2.93	2.47	2.15	2.04	1.89	1.81	1.74	1.74	1.92	1.83	1.92	1.87	1.93	2.14	1.86	1.86	1.89	1.82	1.80	1.43	1.92
6. Mississauga Halton	3.92	3.72	3.52	3.42	3.21	3.22	2.50	2.24	2.18	1.99	2.08	1.97	2.02	2.07	2.06	1.98	2.08	2.01	2.16	1.92	1.96	1.97	1.90	1.92	1.34	1.60
7. Toronto Central	4.73	4.79	4.39	4.24	3.74	3.80	3.17	2.93	2.75	2.50	2.46	2.48	2.59	2.50	2.72	2.55	2.73	2.74	2.88	2.62	2.68	2.68	2.57	2.57	1.90	2.09
8. Central	3.80	3.62	3.62	3.51	3.27	3.14	2.40	1.98	2.07	1.98	1.91	1.83	1.85	1.92	1.98	2.03	2.04	2.06	2.22	2.13	2.11	2.14	2.03	2.09	1.53	1.87
9. Central East	4.68	4.40	4.24	4.12	3.90	3.84	3.27	2.88	2.81	2.53	2.51	2.42	2.43	2.49	2.36	2.46	2.39	2.42	2.59	2.49	2.41	2.44	2.35	2.23	1.65	1.82
10. South East	6.85	6.07	5.71	5.84	5.18	5.01	3.83	3.54	3.31	3.15	3.24	2.83	2.92	3.00	3.01	3.24	3.47	3.12	3.36	3.41	3.42	3.35	3.11	3.01	2.22	2.46
11. Champlain	4.67	4.46	4.49	4.22	4.20	4.08	3.34	3.13	3.09	2.89	2.81	2.48	2.53	2.56	2.60	2.61	2.65	2.57	2.78	2.54	2.30	2.32	2.18	2.13	1.37	1.59
12. North Simcoe Muskoka	6.55	5.51	5.80	6.28	5.57	5.41	4.53	3.99	3.81	3.45	3.41	3.10	3.07	3.10	3.17	3.32	3.30	3.14	3.00	3.06	2.68	2.76	2.69	2.66	1.71	1.81
13. North East	7.08	6.47	6.96	6.95	6.63	6.49	5.80	4.98	4.97	4.34	4.34	3.89	3.96	4.09	3.82	4.24	4.30	4.72	4.88	3.90	3.84	3.66	3.39	3.20	2.32	2.57
14. North West	8.88	7.49	8.00	7.90	7.41	6.79	6.95	4.87	4.83	4.48	4.40	4.03	4.11	4.13	4.19	3.95	3.80	3.69	3.47	3.76	3.78	3.67	3.17	3.39	2.10	2.48

Asthma-Related Hospitalization Crude Rates (cont'd)

Public Health Unit	Asthma-Related Hospitalization Crude Rates (per 100 Asthma Prevalence)																										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020*	2021*	
Algoma	8.08	8.09	7.95	8.61	8.35	7.94	6.11	4.65	4.36	4.61	4.21	3.59	4.02	4.24	3.78	4.12	4.28	4.70	5.57	4.81	3.83	3.37	3.53	3.07	2.56	2.64	
Brant	8.18	7.90	7.59	6.54	5.87	5.75	4.42	4.31	3.69	3.32	3.48	3.05	3.00	3.25	2.99	2.67	3.10	2.77	3.25	3.08	2.92	2.89	2.96	2.93	2.06	2.08	
Durham	3.85	3.60	3.61	3.58	3.34	3.44	2.71	2.33	2.31	2.22	2.17	2.14	2.18	2.16	1.99	2.18	2.04	2.09	2.28	2.17	2.14	2.11	1.92	1.85	1.34	1.51	
Elgin-St Thomas	9.52	8.03	7.69	7.51	6.71	6.32	4.52	4.22	3.60	3.32	3.00	3.07	2.98	2.94	3.08	2.60	3.11	3.45									
Grey-Bruce	8.01	7.84	6.97	6.54	6.41	5.77	4.81	4.53	4.44	3.66	3.72	3.17	3.28	3.31	2.98	2.90	3.37	2.96	3.25	3.04	3.56	3.34	3.08	2.74	1.80	2.09	
Haldimand-Norfolk	7.10	7.12	7.20	6.91	6.84	6.63	5.56	5.16	4.86	4.67	4.40	4.51	4.02	3.91	4.10	3.92	3.76	4.13	3.94	3.84	3.40	2.88	2.80	3.21	1.99	2.54	
Haliburton Kawartha, Pine Ridge	7.26	7.00	6.71	6.97	5.68	6.07	4.91	4.60	4.28	3.93	3.45	3.26	3.14	3.39	3.18	3.38	3.25	3.27	3.52	3.36	3.36	3.04	3.12	3.02	2.11	2.18	
Halton	4.19	4.13	4.12	4.01	4.17	3.87	3.19	2.56	2.54	2.51	2.29	2.18	2.16	2.14	2.13	2.04	2.02	2.01	2.21	1.97	2.01	2.07	1.96	1.93	1.35	1.43	
Hamilton	5.27	5.34	5.67	6.31	6.40	5.70	4.24	4.12	4.09	4.07	3.70	3.56	3.58	3.56	3.58	3.65	3.49	3.68	3.48	3.23	3.03	3.04	2.73	2.79	1.90	2.18	
Hastings Prince Edward	8.90	7.74	6.84	6.67	6.02	5.90	4.45	4.32	3.89	3.54	3.76	3.02	3.45	3.29	3.35	3.49	3.59	3.59	4.22	4.35	4.05	3.04	3.98	3.49	3.42	2.52	2.72
Huron	10.19	9.28	8.26	9.65	8.35	8.83	7.17	5.89	4.69	4.57	4.64	4.33	4.44	4.46	4.66	4.17	4.06	3.54	3.88	4.06	3.42	3.81	3.35	3.67	2.58	2.64	
Chatham-Kent	7.13	6.70	6.08	6.23	5.32	5.73	4.46	4.39	4.09	3.60	3.16	3.03	3.23	3.34	3.10	3.07	3.18	3.37	3.74	3.79	3.44	3.08	2.86	2.62	1.74	2.23	
Kingston Frontenac, and Lennox and Addington	5.23	4.51	4.80	4.92	4.28	3.63	2.68	2.44	2.36	2.33	2.36	2.23	2.03	2.18	2.35	2.53	2.87	2.48	2.64	2.49	2.66	2.63	2.61	2.47	1.80	1.92	
Lambton	6.78	5.74	5.72	5.24	5.34	5.42	4.62	4.42	4.12	4.23	3.89	3.38	2.99	3.16	3.53	4.54	4.38	4.74	4.12	3.94	3.40	3.05	2.70	2.73	2.63	2.56	
Leeds, Grenville, Lanark	6.31	5.82	5.74	5.66	5.18	5.54	4.53	4.10	3.81	3.64	3.76	3.44	3.38	3.58	3.27	3.74	3.65	3.11	3.06	3.33	3.25	3.27	3.04	3.00	2.11	2.41	
Middlesex-London	3.67	3.79	3.76	3.84	3.54	4.07	3.25	2.92	2.65	2.73	2.35	2.10	2.19	2.32	2.39	2.46	2.69	2.80	2.95	2.85	2.73	2.67	2.70	2.36	1.82	2.18	
Niagara	6.19	5.84	5.73	5.79	5.58	5.20	4.40	3.84	3.78	3.38	3.29	3.02	2.94	2.89	3.06	2.96	3.09	2.84	3.04	2.83	2.68	2.83	2.55	2.67	1.78	1.99	
North Bay Parry Sound	7.08	6.25	7.46	7.46	6.28	6.49	5.58	5.25	5.11	4.20	3.99	3.95	3.88	4.01	3.89	3.82	3.93	4.46	4.13	3.63	3.57	3.70	2.83	2.90	2.17	2.45	
Northwestern	11.00	9.18	9.96	9.49	9.03	8.50	7.94	5.66	6.18	5.45	5.22	3.98	4.89	4.15	3.52	3.48	3.90	3.24	3.27	3.42	3.27	3.19	2.78	2.57	1.52	1.86	
Ottawa	3.37	3.38	3.35	3.30	3.27	3.44	2.66	2.50	2.42	2.26	2.21	1.95	1.95	2.00	2.05	2.06	2.13	2.03	2.22	2.00	1.82	1.85	1.73	1.70	1.12	1.26	
Oxford	6.63	6.15	5.66	5.96	4.82	5.90	4.51	3.90	3.47	3.24	3.17	3.21	3.14	3.11	3.41	3.02	3.55	3.84									
Peel	3.67	3.53	3.29	3.27	2.88	2.77	2.24	2.04	1.95	1.74	1.73	1.61	1.71	1.85	1.79	1.79	1.83	1.84	2.02	1.76	1.77	1.84	1.78	1.78	1.34	1.72	
Perth	6.25	5.28	5.83	5.06	4.83	4.62	3.54	3.71	3.35	3.09	2.44	2.53	2.50	2.39	2.69	2.60	2.29	2.55	2.73	2.63	2.66	2.69	2.37	2.21	1.59	1.89	
Peterborough	6.95	5.97	5.97	5.65	5.99	5.45	5.04	5.00	4.34	3.81	3.82	3.19	3.49	3.57	3.21	2.95	3.05	3.10	3.16	3.07	2.94	3.21	3.31	2.93	2.08	2.03	
Porcupine	8.38	5.54	7.61	8.06	7.65	7.03	8.52	7.13	8.37	6.69	6.81	6.20	6.48	6.03	5.60	5.19	5.11	5.41	6.08	5.44	5.33	4.33	4.65	4.53	3.05	2.99	
Renfrew	10.59	9.28	9.39	8.32	7.52	7.69	6.08	5.70	6.07	5.61	5.22	4.66	5.04	5.01	5.20	4.51	4.63	4.85	5.13	4.79	4.17	4.19	3.88	3.32	1.78	2.35	
Eastern Ontario	6.76	6.30	6.38	5.82	6.24	4.94	4.64	4.22	4.32	4.06	4.03	3.53	3.71	3.72	3.78	3.92	4.08	4.02	4.28	3.90	3.60	3.58	3.38	3.44	2.25	2.76	
Simcoe Muskoka	6.35	5.31	5.65	6.05	5.32	5.20	4.45	3.90	3.70	3.37	3.33	3.01	3.01	2.98	3.12	3.32	3.21	3.01	2.92	2.88	2.56	2.63	2.55	2.51	1.62	1.77	
Sudbury	6.00	6.14	5.79	5.18	5.26	5.25	4.62	3.90	3.75	3.25	3.39	2.83	2.79	3.17	2.96	3.88	3.92	4.39	4.38	3.04	3.28	3.25	2.98	2.83	1.95	2.38	
Thunder Bay	8.00	6.80	7.20	7.25	6.77	6.11	6.56	4.56	4.30	4.10	4.07	4.05	3.80	4.13	4.45	4.14	3.76	3.87	3.55	3.89	3.98	3.86	3.31	3.71	2.32	2.71	
Timiskaming	7.24	6.93	8.38	8.97	9.26	8.77	6.88	6.89	6.35	6.29	6.75	6.97	6.35	5.79	5.31	6.31	6.35	6.10	6.37	4.64	5.56	6.02	5.04	4.37	2.96	3.15	
Waterloo	5.92	5.64	5.17	5.20	4.62	4.75	2.85	3.30	3.07	2.98	2.49	2.34	2.28	2.23	2.19	2.22	2.16	2.16	2.36	2.18	2.05	2.18	2.01	1.84	1.31	1.64	
Wellington-Dufferin-Guelph	5.79	5.65	4.92	5.84	5.03	4.66	3.84	3.57	3.23	3.02	3.11	2.67	2.49	2.67	2.52	2.71	2.72	2.73	3.03	2.45	2.33	2.58	2.62	2.10	1.32	1.74	
Windsor-Essex	5.89	5.09	5.77	5.21	5.07	5.20	4.25	4.09	3.54	3.28	3.23	2.91	3.29	3.08	3.38	3.13	3.28	3.60	3.27	3.28	2.99	3.02	2.93	3.19	2.41	2.78	
York Region	3.18	3.15	3.18	3.10	2.86	2.71	1.96	1.70	1.77	1.71	1.62	1.48	1.55	1.67	1.68	1.71	1.73	1.72	1.89	1.83	1.85	1.87	1.73	1.81	1.30	1.63	
Southwestern																			3.62	3.82	3.69	3.74	3.26	3.33	2.16	2.65	
Toronto	4.45	4.39	4.11	3.95	3.64	3.60	3.00	2.62	2.59	2.35	2.37	2.41	2.40	2.41	2.55	2.52	2.60	2.63	2.78	2.61	2.58	2.62	2.53	2.52	1.91	2.21	

*Reporting period is from April 1996 to March 2022. Data for 2020 and 2021 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 prevalence with missing LHIN, rurality, or PHU were excluded from the report.

Asthma-related hospitalization were extracted from both CIHI-DAD and CIHI SDS with asthma diagnosis in all diagnosis types.

PHU of Elgin and St. Thomas (2231) and Oxford Health Unit (2252) were merged in 2014 and now the PHU is named Southwestern Public Health (2275)

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