

Asthma Hospitalization Crude Rates

		Asthma Hospitalization Crude Rates (per 100 Asthma Prevalence)																							
Sex	Age Group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*	2018*	
All	All	4.11	3.54	3.12	3.04	2.58	2.33	1.44	1.14	1.08	1.01	0.84	0.76	0.72	0.71	0.67	0.74	0.75	0.74	0.74	0.62	0.56	0.53	0.49	
	0-4	6.64	5.99	5.50	5.74	5.30	5.33	4.68	4.48	4.74	4.89	3.94	3.43	3.50	3.31	2.96	3.25	3.14	3.06	3.36	3.03	3.20	3.32	3.89	
	5-9	1.69	1.47	1.14	1.36	1.06	0.99	0.87	0.78	0.87	1.04	0.72	0.67	0.61	0.78	0.66	0.77	0.80	0.74	1.00	0.72	0.70	0.62	0.59	
	10-14	1.61	1.26	0.93	1.01	0.72	0.60	0.41	0.35	0.35	0.35	0.26	0.25	0.24	0.27	0.27	0.32	0.35	0.32	0.34	0.28	0.27	0.25	0.22	
	15-19	3.03	2.39	1.77	1.67	1.24	1.01	0.58	0.45	0.39	0.33	0.25	0.23	0.20	0.21	0.20	0.22	0.24	0.25	0.26	0.19	0.20	0.17	0.17	
	20-29	3.24	2.53	2.20	2.05	1.60	1.38	0.83	0.62	0.52	0.46	0.36	0.33	0.28	0.28	0.26	0.31	0.27	0.23	0.23	0.20	0.18	0.17	0.14	
	30-39	3.10	2.66	2.29	2.26	1.91	1.63	1.02	0.76	0.70	0.67	0.62	0.53	0.52	0.53	0.54	0.58	0.57	0.55	0.46	0.39	0.31	0.29	0.27	
	40-49	3.66	3.24	2.94	2.78	2.33	2.06	1.22	0.88	0.79	0.65	0.63	0.59	0.58	0.58	0.56	0.63	0.64	0.64	0.60	0.51	0.41	0.41	0.36	
	50-59	5.07	4.24	4.01	3.84	3.37	2.91	1.66	1.17	1.06	0.89	0.80	0.84	0.84	0.73	0.71	0.63	0.75	0.80	0.77	0.75	0.64	0.53	0.45	0.39
	60-69	6.42	5.84	5.52	4.93	4.51	4.16	2.10	1.45	1.29	1.16	1.10	1.02	0.96	0.93	0.92	1.04	1.02	1.14	1.07	0.84	0.71	0.63	0.54	
70+	9.14	8.37	7.72	7.51	6.65	6.11	2.93	2.15	2.06	1.79	1.65	1.54	1.48	1.39	1.39	1.46	1.58	1.65	1.61	1.36	1.23	1.19	1.07		
Female	All	4.50	3.87	3.46	3.34	2.85	2.58	1.54	1.21	1.13	1.05	0.91	0.83	0.80	0.78	0.76	0.84	0.86	0.86	0.85	0.71	0.64	0.60	0.56	
	0-4	5.71	5.11	4.83	4.92	4.72	4.64	4.07	4.18	4.26	4.49	3.67	3.01	3.19	2.96	2.84	2.97	2.88	2.87	3.03	2.75	3.02	3.13	3.81	
	5-9	1.54	1.25	1.01	1.18	0.92	0.93	0.76	0.71	0.77	0.94	0.67	0.59	0.58	0.72	0.61	0.72	0.82	0.72	0.99	0.67	0.66	0.57	0.59	
	10-14	1.78	1.32	1.02	1.02	0.74	0.63	0.40	0.35	0.38	0.34	0.24	0.24	0.25	0.27	0.25	0.33	0.38	0.36	0.37	0.31	0.33	0.27	0.23	
	15-19	3.95	3.12	2.27	2.17	1.67	1.37	0.73	0.67	0.52	0.45	0.35	0.30	0.25	0.28	0.27	0.29	0.32	0.34	0.32	0.28	0.28	0.26	0.26	
	20-29	3.94	3.08	2.64	2.52	1.95	1.68	1.04	0.79	0.67	0.63	0.49	0.44	0.41	0.41	0.39	0.46	0.41	0.34	0.34	0.28	0.26	0.26	0.22	
	30-39	3.76	3.18	2.82	2.70	2.23	1.98	1.24	0.92	0.83	0.82	0.75	0.66	0.67	0.67	0.69	0.74	0.75	0.72	0.61	0.52	0.42	0.41	0.37	
	40-49	4.18	3.67	3.33	3.15	2.63	2.27	1.35	1.04	0.89	0.73	0.72	0.70	0.65	0.66	0.64	0.74	0.74	0.73	0.73	0.60	0.48	0.47	0.39	
	50-59	5.30	4.56	4.23	4.15	3.60	3.17	1.83	1.29	1.17	1.00	0.89	0.93	0.80	0.80	0.69	0.85	0.88	0.86	0.82	0.70	0.59	0.51	0.41	
	60-69	6.74	6.26	5.90	5.18	4.66	4.39	2.26	1.53	1.40	1.31	1.20	1.11	1.08	1.04	1.04	1.13	1.09	1.24	1.15	0.92	0.76	0.64	0.59	
70+	9.86	8.89	8.27	8.01	7.09	6.56	3.25	2.31	2.36	2.04	1.90	1.79	1.69	1.58	1.63	1.66	1.79	1.86	1.83	1.57	1.42	1.35	1.25		
Male	All	3.67	3.17	2.72	2.70	2.28	2.04	1.34	1.06	1.02	0.96	0.77	0.68	0.63	0.63	0.56	0.63	0.62	0.60	0.62	0.51	0.46	0.44	0.41	
	0-4	7.23	6.55	5.92	6.26	5.66	5.77	5.07	4.67	5.04	5.14	4.11	3.69	3.70	3.53	3.03	3.43	3.31	3.17	3.57	3.21	3.31	3.45	3.95	
	5-9	1.79	1.63	1.23	1.48	1.15	1.04	0.94	0.83	0.93	1.11	0.75	0.72	0.62	0.82	0.69	0.81	0.78	0.75	1.00	0.75	0.73	0.66	0.59	
	10-14	1.48	1.21	0.86	0.99	0.71	0.57	0.41	0.35	0.33	0.36	0.29	0.25	0.24	0.27	0.28	0.30	0.34	0.28	0.32	0.25	0.23	0.23	0.21	
	15-19	1.93	1.58	1.25	1.18	0.84	0.70	0.45	0.27	0.28	0.22	0.17	0.17	0.15	0.15	0.15	0.17	0.19	0.17	0.21	0.13	0.13	0.11	0.11	
	20-29	2.12	1.65	1.52	1.34	1.08	0.95	0.55	0.39	0.33	0.27	0.22	0.20	0.15	0.16	0.13	0.17	0.15	0.14	0.14	0.12	0.11	0.10	0.09	
	30-39	2.04	1.82	1.44	1.56	1.39	1.08	0.68	0.50	0.49	0.42	0.43	0.34	0.29	0.33	0.31	0.34	0.32	0.32	0.27	0.23	0.18	0.16	0.16	
	40-49	2.72	2.48	2.26	2.14	1.82	1.72	1.01	0.61	0.63	0.52	0.49	0.43	0.46	0.45	0.45	0.46	0.48	0.50	0.39	0.37	0.29	0.31	0.30	
	50-59	4.68	3.70	3.63	3.29	2.97	2.47	1.35	0.97	0.85	0.69	0.66	0.67	0.60	0.56	0.54	0.60	0.69	0.63	0.63	0.54	0.45	0.36	0.36	
	60-69	5.96	5.23	4.96	4.54	4.27	3.78	1.84	1.32	1.11	0.92	0.94	0.88	0.76	0.74	0.72	0.90	0.89	0.96	0.93	0.71	0.62	0.60	0.44	
70+	8.04	7.57	6.87	6.74	5.96	5.39	2.43	1.88	1.55	1.38	1.23	1.14	1.12	1.08	1.00	1.13	1.22	1.30	1.25	0.99	0.90	0.93	0.75		

Asthma Hospitalization Crude Rates (cont'd)

	Asthma 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*
Deprivation Quintile[†]																							
Q1 (least marginalized)	3.31	2.92	2.45	2.47	2.10	1.84	1.13	0.88	0.91	0.87	0.71	0.65	0.59	0.54	0.51	0.61	0.61	0.62	0.64	0.51	0.46	0.44	0.39
Q2	3.60	3.12	2.79	2.83	2.38	2.06	1.25	1.03	0.94	0.90	0.74	0.66	0.64	0.65	0.59	0.63	0.65	0.66	0.62	0.53	0.49	0.45	0.42
Q3	4.09	3.46	3.11	3.02	2.52	2.26	1.39	1.09	1.04	0.95	0.79	0.72	0.67	0.63	0.62	0.68	0.70	0.68	0.70	0.58	0.53	0.50	0.46
Q4	4.33	3.76	3.35	3.25	2.72	2.52	1.60	1.25	1.11	1.05	0.90	0.81	0.76	0.75	0.73	0.79	0.79	0.76	0.83	0.69	0.61	0.56	0.53
Q5 (most marginalized)	4.87	4.12	3.62	3.43	3.00	2.81	1.77	1.39	1.31	1.21	1.03	0.94	0.91	0.91	0.83	0.93	0.92	0.91	0.90	0.76	0.70	0.68	0.64
Income Quintile																							
Q1 (lowest)	4.83	4.16	3.67	3.40	2.97	2.76	1.82	1.39	1.32	1.21	1.02	0.95	0.91	0.91	0.84	0.95	0.93	0.94	0.92	0.78	0.72	0.68	0.67
Q2	4.36	3.63	3.27	3.20	2.70	2.52	1.55	1.24	1.10	1.04	0.92	0.81	0.77	0.76	0.72	0.79	0.79	0.77	0.79	0.67	0.62	0.59	0.52
Q3	3.94	3.45	3.07	2.95	2.52	2.25	1.40	1.11	1.08	1.00	0.81	0.71	0.68	0.68	0.64	0.71	0.73	0.70	0.73	0.59	0.53	0.51	0.47
Q4	3.72	3.21	2.77	2.91	2.37	2.09	1.26	0.98	0.99	0.94	0.75	0.69	0.63	0.63	0.57	0.64	0.68	0.66	0.66	0.56	0.47	0.45	0.42
Q5 (highest)	3.57	3.14	2.70	2.63	2.27	1.95	1.15	0.93	0.86	0.82	0.70	0.64	0.59	0.58	0.57	0.62	0.62	0.61	0.59	0.48	0.44	0.41	0.37
Rurality[†]																							
Rural	5.09	4.16	3.65	3.61	3.19	2.85	1.72	1.38	1.29	1.10	0.99	0.84	0.85	0.81	0.74	0.83	0.89	0.87	0.84	0.65	0.55	0.50	0.46
Urban	3.97	3.45	3.04	2.96	2.50	2.26	1.41	1.10	1.05	1.00	0.82	0.75	0.70	0.70	0.66	0.73	0.73	0.72	0.73	0.61	0.56	0.53	0.49
Local Health Integration Network																							
1. Erie St. Clair	4.55	3.64	3.39	3.25	3.11	3.02	2.27	1.76	1.48	1.31	1.14	0.78	0.76	0.73	0.78	0.94	1.00	0.94	0.82	0.79	0.66	0.63	0.44
2. South West	4.68	3.90	3.72	3.69	3.41	3.33	1.91	1.25	1.05	1.08	0.76	0.65	0.71	0.68	0.64	0.71	0.81	0.79	0.84	0.67	0.55	0.52	0.47
3. Waterloo Wellington	6.44	5.65	4.59	4.39	3.14	2.76	1.47	1.45	1.29	1.22	0.99	0.70	0.68	0.65	0.57	0.68	0.76	0.73	0.71	0.58	0.49	0.48	0.50
4. Hamilton Niagara Haldimand Brant	5.05	4.62	4.19	4.02	3.47	2.84	1.62	1.35	1.32	1.24	0.94	0.92	0.79	0.74	0.72	0.66	0.64	0.73	0.64	0.56	0.44	0.45	0.41
5. Central West	3.16	3.01	2.92	3.07	2.09	2.22	1.26	1.03	0.99	0.96	0.83	0.72	0.70	0.72	0.60	0.64	0.63	0.57	0.68	0.58	0.58	0.52	0.51
6. Mississauga Halton	3.50	3.05	2.63	2.57	2.29	2.06	1.16	0.91	0.90	0.90	0.77	0.75	0.67	0.65	0.64	0.61	0.61	0.56	0.57	0.51	0.51	0.44	0.43
7. Toronto Central	3.97	3.47	2.82	2.54	2.09	1.98	1.39	1.15	1.12	1.09	0.96	0.95	0.93	0.86	0.88	1.00	1.04	0.98	1.03	0.97	0.92	0.92	0.74
8. Central	3.15	2.80	2.55	2.47	1.83	1.49	0.98	0.75	0.78	0.84	0.64	0.63	0.55	0.60	0.57	0.57	0.57	0.55	0.57	0.54	0.58	0.56	0.55
9. Central East	3.48	2.95	2.56	2.54	1.99	1.81	1.42	0.98	0.98	0.87	0.73	0.77	0.68	0.70	0.57	0.62	0.58	0.55	0.65	0.54	0.53	0.51	0.50
10. South East	5.95	4.19	3.12	2.86	2.63	2.36	1.40	1.07	1.20	0.94	0.96	0.73	0.77	0.88	0.82	1.02	1.08	1.11	1.03	0.71	0.71	0.70	0.65
11. Champlain	3.09	2.73	2.23	2.27	2.43	2.13	1.04	1.15	1.03	0.83	0.80	0.69	0.65	0.63	0.65	0.76	0.74	0.74	0.60	0.50	0.39	0.29	0.30
12. North Simcoe Muskoka	4.32	3.57	3.02	3.32	2.42	2.33	1.61	1.21	1.05	1.03	0.78	0.76	0.83	0.80	0.81	0.83	0.74	0.75	0.65	0.61	0.43	0.45	0.37
13. North East	4.99	3.83	3.62	3.44	3.29	3.16	1.70	1.37	1.25	1.17	1.02	0.82	0.92	0.88	0.71	1.35	1.41	1.63	1.76	0.78	0.57	0.50	0.49
14. North West	7.37	7.10	7.20	7.11	6.67	5.01	3.71	1.52	1.67	1.51	1.27	0.97	0.82	0.81	0.55	0.67	0.54	0.48	0.56	0.57	0.45	0.44	0.34

Asthma Hospitalization Crude Rates (cont'd)

Public Health Unit	Asthma 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*
Algoma	7.84	6.36	5.46	5.93	6.89	6.14	2.47	1.38	1.14	1.04	1.06	0.97	0.78	0.80	0.61	0.98	1.03	1.69	2.42	1.79	0.58	0.60	0.44
Brant	6.67	6.36	5.15	4.12	2.62	2.29	1.36	1.29	1.19	1.08	0.96	0.85	0.59	0.64	0.49	0.42	0.46	0.52	0.57	0.52	0.45	0.50	0.45
Durham	3.22	2.60	2.31	2.44	1.85	1.48	1.17	0.77	0.75	0.71	0.57	0.67	0.56	0.62	0.47	0.52	0.51	0.46	0.55	0.49	0.46	0.44	0.38
Elgin-St Thomas	5.44	4.38	4.14	4.35	3.90	3.88	2.55	1.42	0.95	1.16	0.84	0.68	0.71	0.77	0.61	0.70	0.59	0.60	0.71	0.56	0.54	0.46	0.47
Grey-Bruce	4.32	4.01	3.36	2.82	2.22	2.11	1.40	1.00	0.91	0.77	0.70	0.54	0.62	0.61	0.55	0.59	0.62	0.48	0.56	0.46	0.50	0.49	0.43
Haldimand-Norfolk	5.64	5.04	4.24	3.58	3.15	2.97	1.54	1.44	1.45	1.36	1.05	1.02	1.14	0.81	0.79	0.73	0.64	0.86	0.62	0.61	0.32	0.36	0.22
Haliburton Kawartha, Pine Ridge	4.68	4.02	3.55	3.24	2.29	2.02	1.65	1.30	1.11	1.04	0.74	0.64	0.56	0.56	0.53	0.48	0.50	0.46	0.52	0.45	0.45	0.36	0.43
Halton	4.35	3.94	3.49	3.41	3.22	2.45	1.33	0.96	0.97	0.95	0.83	0.87	0.69	0.66	0.59	0.50	0.51	0.52	0.50	0.46	0.44	0.37	0.32
Hamilton	4.27	4.30	4.19	4.38	3.82	3.15	1.62	1.31	1.32	1.38	1.03	1.03	0.77	0.78	0.85	0.88	0.71	0.97	0.77	0.66	0.49	0.52	0.46
Hastings Prince Edward	8.63	5.94	3.42	3.03	3.22	2.77	1.74	1.30	1.55	1.10	1.04	0.83	0.89	0.91	0.90	0.96	1.12	0.90	0.99	0.67	0.60	0.64	0.64
Huron	5.82	5.31	4.46	5.13	4.29	3.87	2.00	1.79	1.39	1.10	0.87	0.79	0.74	0.81	0.83	0.71	0.72	0.79	0.53	0.40	0.49	0.48	0.41
Chatham-Kent	4.52	4.36	3.03	3.24	3.13	2.85	1.48	1.37	1.20	0.99	0.65	0.55	0.41	0.48	0.45	0.41	0.54	0.40	0.49	0.63	0.62	0.39	0.29
Kingston Frontenac, and Lennox and Addington	5.09	3.25	3.32	3.19	2.62	2.22	1.21	0.80	0.87	0.70	0.66	0.54	0.60	0.80	0.77	1.04	1.02	1.49	1.27	0.82	0.88	0.89	0.83
Lambton	4.24	3.32	2.97	3.70	2.89	2.71	2.23	1.88	2.01	1.82	1.41	1.08	0.88	0.96	1.13	1.98	1.91	1.70	1.06	0.91	0.74	0.85	0.50
Leeds, Grenville, Lanark	3.82	3.03	2.35	2.24	1.90	2.10	1.18	1.20	1.16	0.96	1.09	0.84	0.76	0.77	0.71	0.95	0.98	0.81	0.67	0.58	0.55	0.40	0.33
Middlesex-London	4.35	3.50	3.78	3.83	3.74	3.62	2.01	1.17	1.03	1.19	0.71	0.63	0.63	0.68	0.60	0.77	0.91	0.93	1.00	0.75	0.55	0.56	0.51
Niagara	4.84	3.99	3.74	3.72	3.28	2.78	1.79	1.47	1.39	1.22	0.87	0.84	0.87	0.76	0.77	0.64	0.71	0.67	0.61	0.53	0.44	0.44	0.42
North Bay Parry Sound	4.17	3.26	3.45	3.14	2.56	2.75	1.43	1.48	1.08	0.95	0.87	0.70	0.84	0.80	0.62	0.92	1.15	1.08	1.07	0.64	0.64	0.51	0.47
Northwestern	7.56	6.74	6.34	5.78	5.07	3.69	3.16	1.83	2.30	2.28	2.12	1.19	1.24	1.23	0.59	0.74	0.66	0.62	0.61	0.64	0.44	0.42	0.31
Ottawa	2.32	2.16	1.62	1.66	1.83	1.55	0.88	1.01	0.89	0.72	0.73	0.60	0.63	0.58	0.65	0.76	0.72	0.69	0.57	0.46	0.36	0.26	0.25
Oxford	4.99	4.20	3.48	3.31	3.13	3.41	1.69	1.37	0.96	0.98	0.85	0.66	0.68	0.62	0.73	0.68	0.98	0.86	0.97	0.93	0.65	0.47	0.46
Peel	3.32	2.88	2.73	2.78	2.16	2.16	1.23	0.98	0.94	0.95	0.80	0.70	0.67	0.67	0.61	0.62	0.62	0.53	0.60	0.52	0.52	0.48	0.50
Perth	5.24	3.74	3.36	3.65	3.06	3.07	1.68	1.45	1.31	1.19	0.80	0.68	1.10	0.62	0.84	0.60	0.67	0.52	0.53	0.59	0.60	0.52	0.43
Peterborough	3.95	3.75	3.35	3.35	2.45	2.23	1.84	1.31	1.05	1.03	0.78	0.78	0.73	0.66	0.58	0.64	0.53	0.56	0.62	0.58	0.52	0.52	0.46
Porcupine	4.98	3.19	3.69	3.68	2.74	2.91	2.28	2.15	2.62	2.13	2.09	1.50	2.13	1.83	1.50	1.25	1.19	1.20	1.31	0.96	0.72	0.62	0.61
Renfrew	6.37	4.91	3.61	3.34	3.59	2.97	1.89	2.04	1.49	1.28	1.45	1.11	0.80	0.81	0.78	0.73	0.84	0.91	1.04	0.71	0.55	0.45	0.61
Eastern Ontario	4.19	3.88	3.89	4.07	4.22	3.89	1.26	1.27	1.41	1.11	0.89	0.89	0.74	0.83	0.67	0.80	0.84	0.86	0.60	0.57	0.46	0.38	0.37
Simcoe Muskoka	4.32	3.53	3.02	3.29	2.38	2.28	1.60	1.19	1.05	1.01	0.76	0.71	0.78	0.76	0.77	0.79	0.68	0.70	0.60	0.58	0.45	0.44	0.36
Sudbury	4.22	3.25	2.82	2.42	2.27	2.15	1.31	0.94	0.85	0.93	0.67	0.57	0.58	0.62	0.50	1.79	1.80	2.02	2.08	0.38	0.43	0.36	0.43
Thunder Bay	7.29	7.25	7.55	7.65	7.32	5.53	3.92	1.39	1.41	1.20	0.94	0.88	0.66	0.64	0.53	0.64	0.50	0.43	0.55	0.54	0.46	0.45	0.35
Timiskaming	4.19	3.88	3.62	3.53	3.59	3.21	1.68	1.90	1.62	1.74	1.16	1.00	1.02	0.79	0.83	1.16	1.44	1.75	1.11	0.55	0.84	0.85	0.87
Waterloo	6.86	6.03	5.11	4.38	2.86	2.65	1.37	1.45	1.32	1.14	0.96	0.66	0.66	0.62	0.56	0.69	0.72	0.66	0.63	0.52	0.43	0.44	0.45
Wellington-Dufferin- Guelph	4.95	4.52	3.31	4.13	3.55	2.80	1.54	1.34	1.20	1.21	0.99	0.77	0.64	0.68	0.53	0.58	0.79	0.77	0.79	0.62	0.56	0.48	0.54
Windsor-Essex	4.72	3.46	3.75	3.06	3.19	3.23	2.61	1.87	1.37	1.22	1.20	0.74	0.83	0.72	0.76	0.73	0.81	0.82	0.83	0.78	0.64	0.62	0.46
York Region	3.22	2.89	2.67	2.65	1.89	1.37	0.92	0.70	0.76	0.81	0.60	0.55	0.45	0.49	0.48	0.43	0.44	0.43	0.44	0.42	0.41	0.42	0.41
Toronto	3.49	3.10	2.58	2.38	1.96	1.89	1.30	1.03	1.05	0.98	0.86	0.89	0.85	0.84	0.79	0.89	0.89	0.85	0.93	0.83	0.84	0.82	0.75

*Reporting period is from April 1996 to March 2019. Data for 2017 and 2018 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 hospitalization were extracted from both CIHI-DAD and CIHI SDS with asthma diagnosis in all diagnosis types.

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