



Anaphylaxis and Allergy in the Emergency Department

Up to 30% of people are affected by some kind of allergy.¹ Anaphylaxis is a serious allergic reaction that is rapid in onset and may cause death.² Anaphylaxis symptoms can range from mild to severe and typically involve at least 2 body systems (e.g., respiratory, cardiovascular). This information is intended to build awareness and support policy development around anaphylaxis and severe allergy.

Emergency treatment

Canadian allergists' recommendations include the following if you suspect an anaphylactic reaction:²

- Give epinephrine auto-injector.
- Call 9-1-1.
- Go to the nearest hospital.

Acknowledgements

CIHI would like to acknowledge AllerGen NCE and Food Allergy Canada (formerly Anaphylaxis Canada) for their collaboration on this project.

Contact us

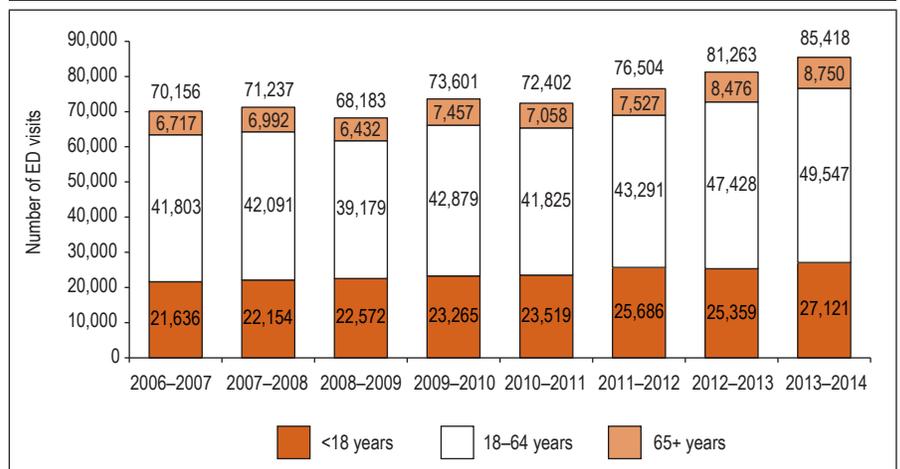
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References

1. Pawankar R, et al. Introduction and executive summary: allergic disease as a global public health issue. In: Pawankar R, et al., eds. [World Allergy Organization \(WAO\) White Book on Allergy, 2011–2012](#). 2011.
2. Canadian Society of Allergy and Clinical Immunology. [Anaphylaxis in Schools and Other Settings](#). 2014.

Each year, 1% of all emergency department (ED) visits are for an allergic reaction (including anaphylaxis). 8% of these visits are for anaphylaxis specifically.

Figure 1: Number of visits to the ED for allergic reaction (including anaphylaxis), by age, 2006–2007 to 2013–2014



Note

Includes Ontario and Alberta.

Sources

National Ambulatory Care Reporting System, 2006–2007 to 2013–2014, Canadian Institute for Health Information; Alberta Ambulatory Care Reporting System, 2006–2007 to 2009–2010, Alberta Health Services.

- In Ontario and Alberta alone, there were more than 85,400 ED visits for an allergic reaction (including anaphylaxis) in 2013–2014.
- Extrapolating to all of Canada means there would have been more than 171,000 visits to the ED for allergy that year.

- Children younger than 18 made up 1 in 3 patients coming to the ED for allergic reactions, compared with 1 in 5 for all other reasons.
- Most allergic reactions were classified as “Unspecified” (69%). Insect/snake bites accounted for 15% of visits; 11% of visits were food related and 5% were drug related.

People more often go to the ED for allergic reactions in the summer; visits for food-related reactions are also common in December.

Table 1: Percentage of visits to the ED for allergic reaction (including anaphylaxis), by category and month, 2013–2014

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Unspecified*	6.9	6.3	7.3	8.0	9.6	9.7	10.3	10.2	9.3	8.3	7.2	7.1
Insect/snake bite	0.1	0.1	0.2	0.5	2.9	5.1	23.7	29.9	29.5	7.4	0.4	0.2
Food	7.7	7.2	8.2	7.3	8.7	8.5	8.8	9.3	8.5	8.5	8.1	9.2
Drug	8.2	8.6	8.7	8.7	8.3	7.9	8.7	7.6	7.8	8.6	8.5	8.4
All other ED visits	8.3	7.6	8.5	8.1	8.7	8.4	8.8	8.6	8.3	8.4	7.9	8.4

Notes

* Includes hives, edema and other unspecified reactions.

Orange boxes indicate a greater percentage of visits.

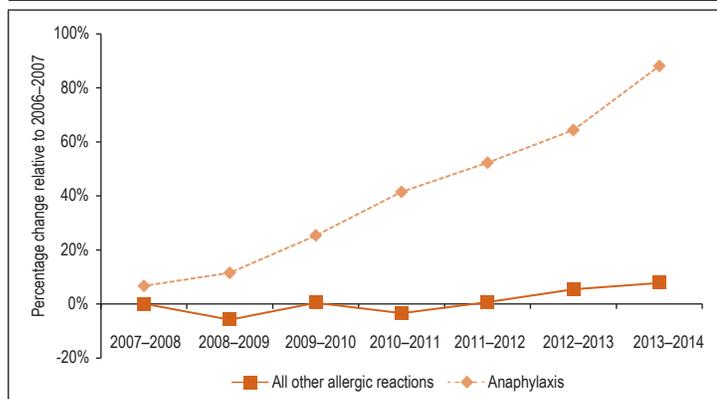
Includes Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and Yukon.

Source

National Ambulatory Care Reporting System, 2014, Canadian Institute for Health Information.

The rate of visits specifically for anaphylaxis represents a small but growing portion, increasing by 95% per 100,000 population between 2006–2007 and 2013–2014.

Figure 2: Percentage change in rates of ED visits for anaphylaxis, 2007–2008 to 2013–2014



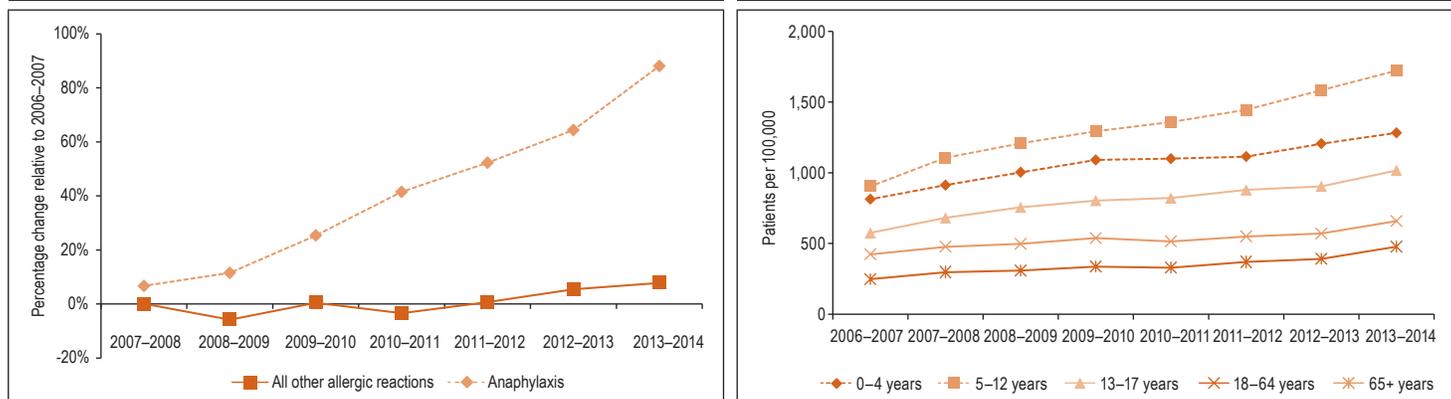
Note

Includes Ontario and Alberta.

Sources

National Ambulatory Care Reporting System, 2014, Canadian Institute for Health Information.

Figure 3: Rates of dispensed prescription auto-injectors per 100,000, by age, 2006–2007 to 2013–2014



Note

Includes Manitoba, Saskatchewan and British Columbia.

Sources

National Prescription Drug Utilization Information System Database, 2014, Canadian Institute for Health Information.

Since 2006–2007, there has been a 64% increase in the rate of individuals dispensed an epinephrine auto-injector. Total spending on epinephrine auto-injectors is also rising, increasing 28% in the last 3 years. In comparison, spending for all other drugs rose only 10%, according to data from IMS Brogan.

Unless otherwise indicated, this product uses data provided by Canada's provinces and territories.

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