



# Anaphylaxis and Allergy in the Emergency Department

Up to 30% of people are affected by some kind of allergy.<sup>1</sup> Anaphylaxis is a serious allergic reaction that is rapid in onset and may cause death.<sup>2</sup> 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:<sup>2</sup>

- 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

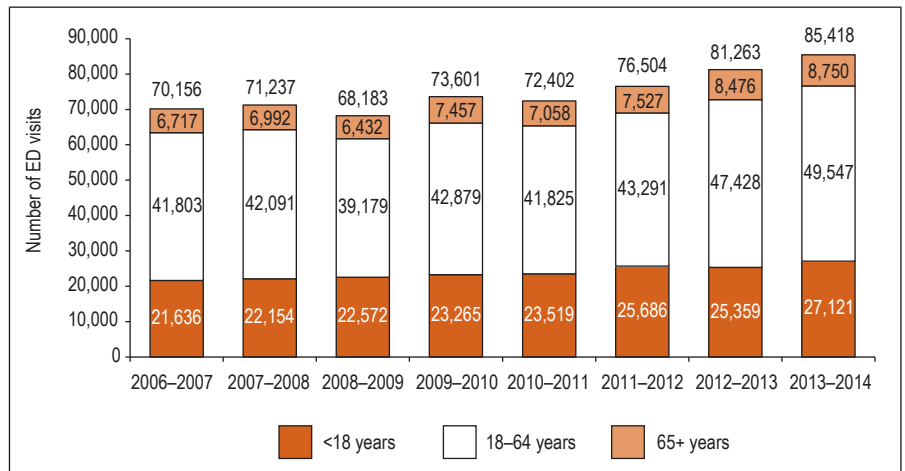
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## References

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.
<b>Unspecified*</b>	6.9	6.3	7.3	8.0	9.6	9.7	10.3	10.2	9.3	8.3	7.2	7.1
<b>Insect/snake bite</b>	0.1	0.1	0.2	0.5	2.9	5.1	23.7	29.9	29.5	7.4	0.4	0.2
<b>Food</b>	7.7	7.2	8.2	7.3	8.7	8.5	8.8	9.3	8.5	8.5	8.1	9.2
<b>Drug</b>	8.2	8.6	8.7	8.7	8.3	7.9	8.7	7.6	7.8	8.6	8.5	8.4
<b>All other ED visits</b>	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.

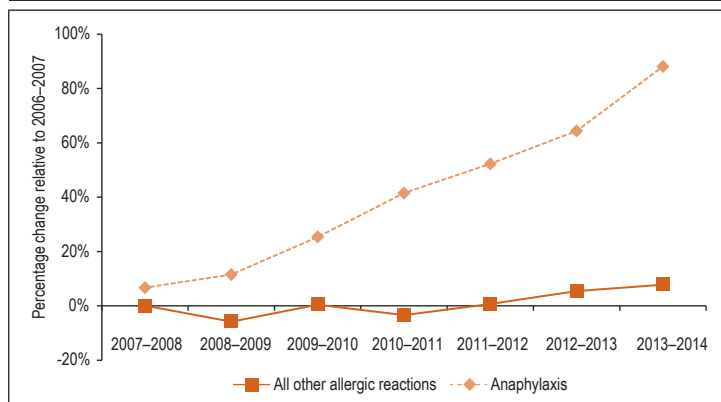
Includes Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and Yukon.

**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**



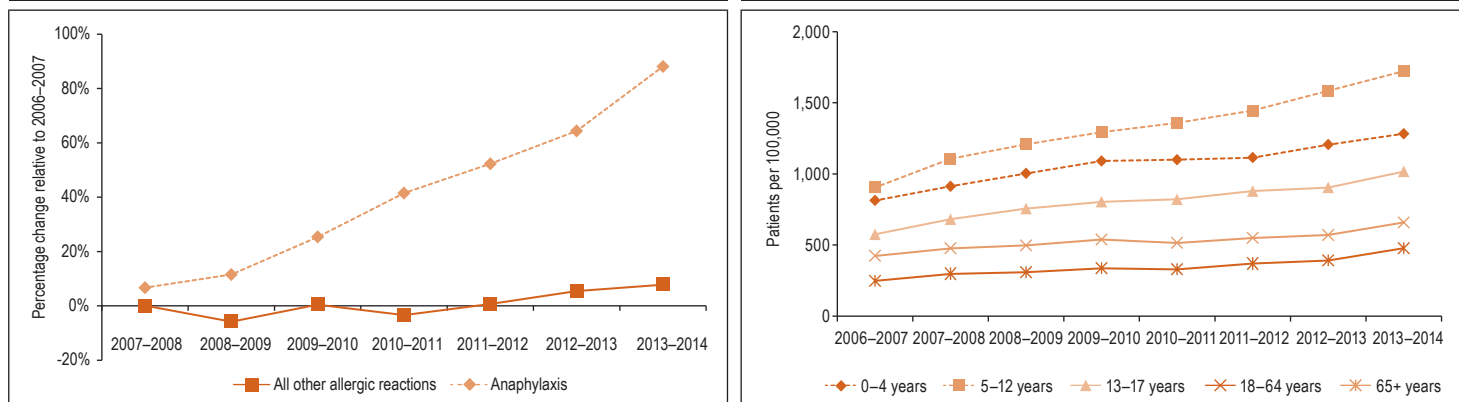
**Note**

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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