

Emergency Department Visits For Asthma | Annual Number of Emergency Department Visits for Asthma

Data details

Footnotes

1. The emergency department visits data shown here are provided by state and/or local public health departments to the National Environmental Public Health Tracking Program.
2. Emergency department visit records are selected using primary diagnosis codes and emergency department visit date.
3. These data represent number of emergency department visits rather than number of individuals. For example, a person visiting the emergency department twice in one year would count as two visits.
4. Data from Veterans Affairs, Indian Health Services and institutionalized (e.g., prison) populations are not included in the dataset submitted to National Environmental Public Health Tracking Program.
5. Emergency department visits of residents to out-of-state hospitals are excluded for most states. Visits for border counties may be under estimated. The inclusion of these visits by some states can make affect state to state comparability.
6. On October 1, 2015 in the US, ICD-10-CM replaced ICD-9-CM for coding of medical terminology and disease classification. This coding change impacts information classifications for hospital discharge, emergency department, and outpatient records for administrative and financial transactions in all healthcare settings. In 2015, data were coded as ICD-9-CM from January to September and as ICD-10-CM from October to December in 2015. Differences in counts and rates in years prior to 2015 (ICD-9-CM) compared with 2015 (ICD-9-CM and ICD-10-CM) and subsequent years (ICD-10-CM) could be a result of this coding change and not an actual difference in the number of events.
7. Differences in the data between states or counties or over time may be due to the differences in coding, diagnostic techniques, and hospital admission practices.
8. CDC Tracking Network suppresses data for counties with non-zero counts less than 6 and population less than 100,000 to protect confidentiality.

Blanks or Missing Data

Blanks or missing data within the maps, tables, and charts may be due to one of the following reasons: (1) data were not collected, (2) data were collected but were not provided to CDC, or (3) data were incomplete or did not meet data quality standards.

Data Differences

Data presented on CDC's Tracking Network may differ from data that are presented on state or city tracking networks, state or city health department websites, and other source websites for the same measures. The differences may occur for many reasons, such as use of different population estimates, differences in processes and timing for updating data, or differences in how a measure is defined for environmental public health tracking purposes. Consult the indicators and measures descriptions and metadata that are provided on this site for more information.

Indicator

For more information, refer to the documentation available through the [Indicator and Data Link](#).

Data Source Descriptions (Metadata)

For more information about the state or national data sources, read these metadata descriptions about the data; [National Emergency Department Visits](#)

Map Data Sources

This site makes use of [OpenStreetMap®](#) and OSM's [Nominatim](#) service for our GeoPlace search. [OpenStreetMap®](#) is open data, licensed under the [Open Data Commons Open Database License \(ODbL\)](#) by the [OpenStreetMap Foundation \(OSMF\)](#).

[Vulnerability Disclosure Policy](#)

How should this data set be cited?

Suggested Citation

Centers for Disease Control and Prevention. Environmental Public Health Tracking Network. State Emergency Department Visits data. Accessed From: <https://ephtracking.cdc.gov/DataExplorer>. Accessed on 12/10/2023

Why was the data set created?

Purpose

The development of a single analytic method for asthma ED visits among persons living in state will inform multiple users:

State:

- May be linked with other risk factors, such as air pollution, to identify susceptible populations and explore ecologic relationships.
- Allows for a better understanding of what the asthma surveillance data represents when interpreting number of inpatient hospitalizations.
- Permits the monitoring of trends temporally and spatially.

National:

- It will allow for comparison across states, which can be used to target interventions (especially for CDC and EPA).

Public:

- The public and concerned community members will be able to view the Tracking Network webpage and learn the annual rate of asthma ED visits and burden of asthma in their state, county, or sub-county areas.

How was the data set created?

Derivation of measure

Numerator:

- Emergency department (ED) visits during a calendar year for asthma using International Classification of Diseases, Ninth Revision, Clinical Modification code (ICD-9-CM) 493 or International Classification of Diseases, Tenth Revision, Clinical Modification code (ICD-10-CM) J45 as the primary diagnosis code (including records for ED visits resulting in a hospitalization)
- Both inpatient and outpatient records with duplicate* records removed and transfers to other hospitals included. *Duplicate records refer to more than one record for the same person for the same event (with the same ED visit data e.g., sex, date of birth, admission/ED visit date, and ZIP code have exact same information).

Denominator:

- Annual population estimates for state and county from U.S. Census Bureau

Adjustment:

- Age-adjustment by the direct method using Year 2000 U.S. Standard population

What are the limitations of the data set?

State ED data:

- Federal institutions, such as Veteran's Affairs, Indian Health Services, and prison facilities, are excluded from the data.
- In-state residents who visit an ED in surrounding states would not be included unless states have ED data sharing agreements.
- Practice patterns and payment mechanisms may affect diagnostic coding and decisions by healthcare providers.
- Sometimes the mailing address of a patient (e.g., PO Box) is listed as the residence address of the patient. Patients may be exposed to environmental triggers in multiple locations, but geographic information is limited to residence.

How should these data be used?

Use Constraints

- Numbers may be too small in rural areas to calculate stable rates.
- The timing of the exposure may not correspond to the timing of the asthma exacerbation leading to the ED visit.
- Individuals may have asthma exacerbations due to exposure to an environmental risk factor that does not result in an ED visit and thus, are not captured in this measure.
- Differences in rates by time or area may reflect differences or changes in diagnostic techniques and criteria and in the coding of asthma.
- Reporting rates at the state and/or county level will not show the true asthma burden compared to a more local level (i.e., sub-county, neighborhood).
- Differences in rates by area may be due to different socio-demographic characteristics and associated behaviors.
- When comparing rates across geographic areas, a variety of non-environmental factors, such as access to medical care, can impact the likelihood of persons treated at ED for asthma.
- Reporting rates at the state and/or county level may not have sufficient geographic resolution to be linked with many types of environmental data.
- When looking at small geographic levels (e.g., sub-county, ZIP code), users must take into consideration appropriate cell suppression rules imposed by the data providers or individual state programs.

- Although duplicate records for the same ED visit are excluded, the measures are based upon events, not individuals, because no unique identifier is always available. When multiple admissions for the same person during the year are not identified, the resulting rate is not the proportion of the population that has an asthma ED visit. Rather, it is the number of events per 10,000 population, which is an overestimate of the proportion. Even at the county level, it can be expected that the measures generated will often be based upon numbers too small to report or present without violating state and federal privacy guidelines and regulations. Careful adherence to cell suppression rules in cross tabulations is necessary and methods to increase cell sizes by combining data across time (e.g., months, years) and geographic areas may be appropriate.
- The Tracking Program's sub-county geographies are created using populations of United States Decennial Census. Measures towards the end of the decade may be less reliable as population shift occurs.
- Limitations associated with the sub-county aggregation methodology are described in [our GitHub repository](#).

How can someone get a copy of the queried data set?

Your queried dataset is available for download by clicking the export icon from within your query screen. The resulting .zip file will include your data in a .csv format as well as supporting information about the data.

The Tracking Network Data Application Program Interface (API) is an alternate way to query data from the Environmental Public Health Tracking Network. The API provides a standardized URL interface with a JSON formatted result set that you can integrate into your applications. Below is a link to this query result (in JSON format) using our public API.

<https://awpv-neph-pp1.cdc.gov/apigateway/api/v1/getCoreHolder/434/2/1/6/1/2019,2018,2017,2016,2015,2014,2013,2012,2011,2010,2009,2008,2007,2006,2005/0/0>

For additional details and documentation on the API please visit our [API Resource Page](#).

Questions

If you have questions about this dataset, the tracking portal or the National Environmental Public Health Tracking Network please contact us at trackingsupport@cdc.gov

| Column Name | Description | Data Class | Units |
|--------------------|--|-------------------|------------------|
| StateFIPS | one-digit state FIPS number (6 for CA) | integer | NA |
| State | California | factor | NA |
| CountyFIPS | 4-digit county FIPS number | integer | NA |
| County | county name | factor | NA |
| Year | year of data | integer | NA |
| Value | number of emergency department visits for asthma | factor | number of visits |
| Data Comment | empty column for comments | logi | NA |