

# Pediatric Quality Indicator 14 (PDI 14) Asthma Admission Rate July 2024

## Area-Level Indicator

## Type of Score: Rate

### Prepared by:

Agency for Healthcare Research and Quality

U.S. Department of Health and Human Services

[qualityindicators.ahrq.gov](https://qualityindicators.ahrq.gov)

### DESCRIPTION

Hospitalizations with a principal diagnosis of asthma per 100,000 population, ages 2 through 17 years. Excludes discharges with a diagnosis code for cystic fibrosis and anomalies of the respiratory system, transfers from other institutions, and obstetric discharges.

*[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report admissions per 100,000 population.]*

### NUMERATOR

Hospital discharges for patients ages 2 through 17 years, with a principal ICD-10-CM diagnosis code for asthma (**ACSASTD\***) .

### NUMERATOR EXCLUSIONS

Exclude discharges:

- with any listed ICD-10-CM diagnosis code for cystic fibrosis and anomalies of the respiratory system (**RESPAN\***)
- with admission source for transferred from a different hospital or other health care facility (**Appendix J**) (ATYPE is not 4 and UB04 Admission source - 2, 3)
- with a point of origin code for transfer from a hospital, skilled nursing facility (SNF) or intermediate care facility (ICF), or other healthcare facility (**Appendix J**) (ATYPE is not 4 and UB04 Point of Origin - 4, 5, 6)
- with a principal ICD-10-CM diagnosis code assigned to MDC 14 Pregnancy, Childbirth & the puerperium (**Appendix N: MDC14PRINDX**)
- with an ungroupable DRG (DRG=999)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

[Appendix J – Admission Codes for Transfers](#)

[Appendix N – MDC 14 and 15 Principal Diagnosis Codes](#)

**DENOMINATOR**

Population ages 2 through 17 years in metropolitan area<sup>1</sup> or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

<sup>1</sup> The denominator is extrapolated by applying a multiplicative factor to the population count for the 0 to 4 age group and combining this estimate with the counts for the other age groups in the denominator age range. The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area, or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the AHRQ QI software.

\* See below for code list

***Asthma diagnosis codes: (ACSASTD)***

J4521	Mild intermittent asthma with (acute) exacerbation	J4552	Severe persistent asthma with status asthmaticus
J4522	Mild intermittent asthma with status asthmaticus	J45901	Unspecified asthma with (acute) exacerbation
J4531	Mild persistent asthma with (acute) exacerbation	J45902	Unspecified asthma with status asthmaticus
J4532	Mild persistent asthma with status asthmaticus	J45990	Exercise induced bronchospasm
J4541	Moderate persistent asthma with (acute) exacerbation	J45991	Cough variant asthma
J4542	Moderate persistent asthma with status asthmaticus	J45998	Other asthma
J4551	Severe persistent asthma with (acute) exacerbation		

***Cystic fibrosis and anomalies of the respiratory system diagnosis codes: (RESPAN)***

E840	Cystic fibrosis with pulmonary manifestations	Q320	Congenital tracheomalacia
E8411	Meconium ileus in cystic fibrosis	Q321	Other congenital malformations of trachea
E8419	Cystic fibrosis with Other intestinal manifestations	Q322	Congenital bronchomalacia
E848	Cystic fibrosis with Other manifestations	Q323	Congenital stenosis of bronchus
E849	Cystic fibrosis, Unspecified	Q324	Other congenital malformations of bronchus
J8483	Surfactant mutations of the lung	Q330	Congenital cystic lung
J84841	Neuroendocrine cell hyperplasia of infancy	Q331	Accessory lobe of lung
J84842	Pulmonary interstitial glycogenosis	Q332	Sequestration of lung
J84843	Alveolar capillary dysplasia with vein misalignment	Q333	Agensis of lung
J84848	Other interstitial lung diseases of childhood	Q334	Congenital bronchiectasis
P270	Wilson-Mikity syndrome	Q335	Ectopic tissue in lung
P271	Bronchopulmonary dysplasia originating in the perinatal period	Q336	Congenital hypoplasia and dysplasia of lung
P278	Other chronic respiratory diseases originating in the perinatal period	Q338	Other congenital malformations of lung
P279	Unspecified chronic respiratory disease originating in the perinatal period	Q339	Congenital malformation of lung, Unspecified
Q254	Other congenital malformations of aorta	Q340	Anomaly of pleura
Q2545	Double aortic arch	Q341	Congenital cyst of mediastinum
Q2547	Right aortic arch	Q348	Other specified congenital malformations of respiratory system
Q2548	Anomalous origin of subclavian artery	Q349	Congenital malformation of respiratory system, Unspecified
Q311	Congenital subglottic stenosis	Q390	Atresia of esophagus without fistula
Q312	Laryngeal hypoplasia	Q391	Atresia of esophagus with tracheo-esophageal fistula
Q313	Laryngocele	Q392	Congenital tracheo-esophageal fistula without atresia
Q315	Congenital laryngomalacia	Q393	Congenital stenosis and stricture of esophagus
Q318	Other congenital malformations of larynx	Q394	Esophageal web

Q319	Congenital malformation of larynx, Unspecified	Q893	Situs inversus
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