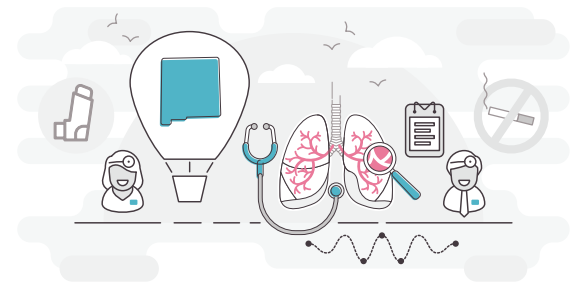


Clearing the Air

A Quarterly New Mexico Asthma Data Report



Volume 2, Issue 2

December 2021

ASTHMA-RELATED HOSPITALIZATIONS IN NEW MEXICO

Asthma is one of the most common and costly diseases in the United States. In New Mexico, about 1 out of every 10 (10.1%) adults and 1 out of every 13 (7.2%) children currently have asthma¹. The annual per-person medical cost of asthma in 2015 was estimated to be \$3,266². Asthma causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. There is no cure for asthma, but it can be managed with adequate access to medical care, medications, trigger avoidance, and self-management. Asthma is the most frequent reason for preventable hospitalization among children³. Asthma-related hospitalizations represent instances where an individual is severely struggling to control their asthma. They can incur huge costs to individuals, families, and the healthcare system. This report summarizes trends in asthma related hospitalizations in New Mexico.

ISSUE HIGHLIGHTS



Asthma-related hospitalizations are about 3 times higher among children compared to adults.



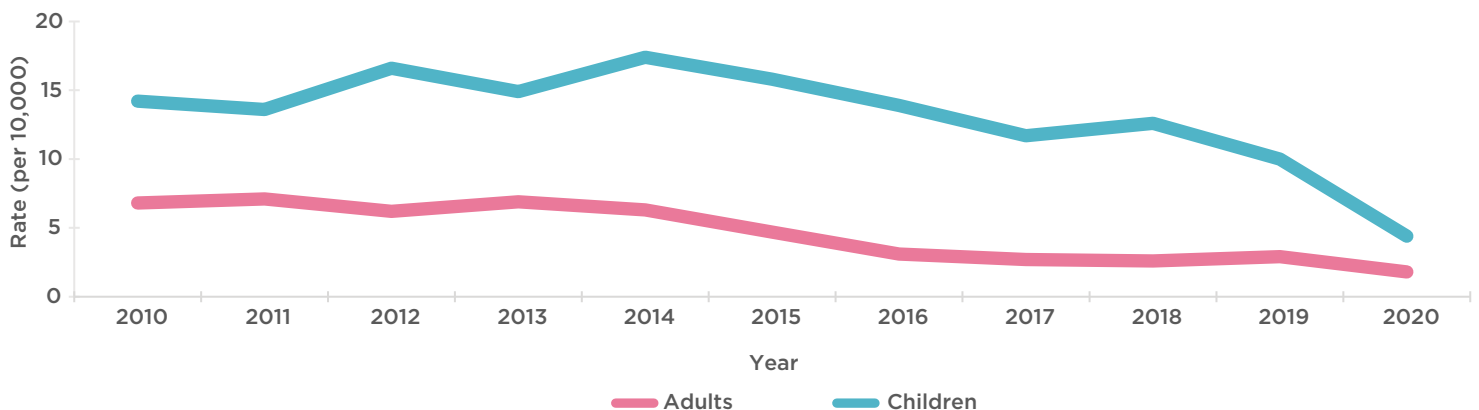
Asthma-related hospitalizations dramatically declined in 2020, likely due to the COVID-19 pandemic.



Hospitalization rates are highest in February & March.

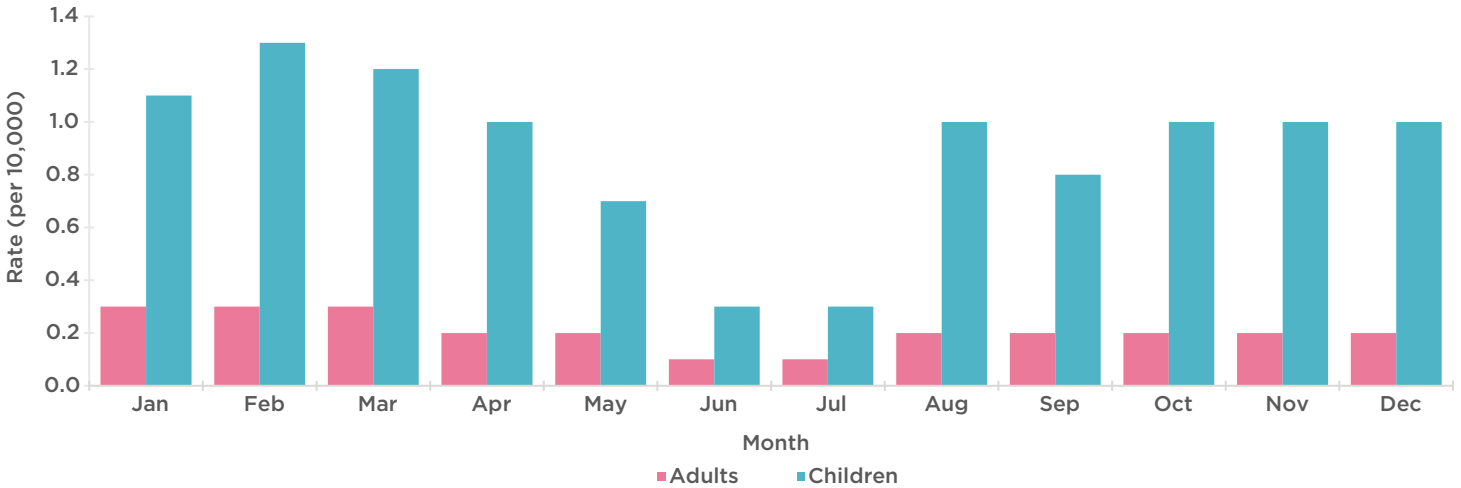
ANNUAL TRENDS IN ASTHMA-RELATED HOSPITALIZATIONS IN NM

In 2020, 211 children (rate of 4.4 per 10,000) and 300 adults (rate of 1.8 per 10,000) were hospitalized due to their asthma. Rates are about 3 times higher among children compared to adults. Since 2014, childhood and adult asthma-related hospitalizations have been decreasing. Between 2019 and 2020, there was a significant drop in rates, especially among children, whose rate decreased by 56% in a single year. This is likely due to changes in environment and behavior caused by the COVID-19 pandemic.



NM ASTHMA-RELATED HOSPITALIZATIONS BY MONTH

In NM, asthma-related hospitalizations are highest in February and March, and are lowest during the summer months (June and July). These seasonal trends follow the school-year calendar. Research suggests that the transmission of routine infectious diseases (e.g., influenza and the common cold) in the school environment can severely impact a child's ability to control their asthma, sometimes leading to hospitalization⁴.



NM ASTHMA-RELATED HOSPITALIZATIONS BY AGE AND GENDER

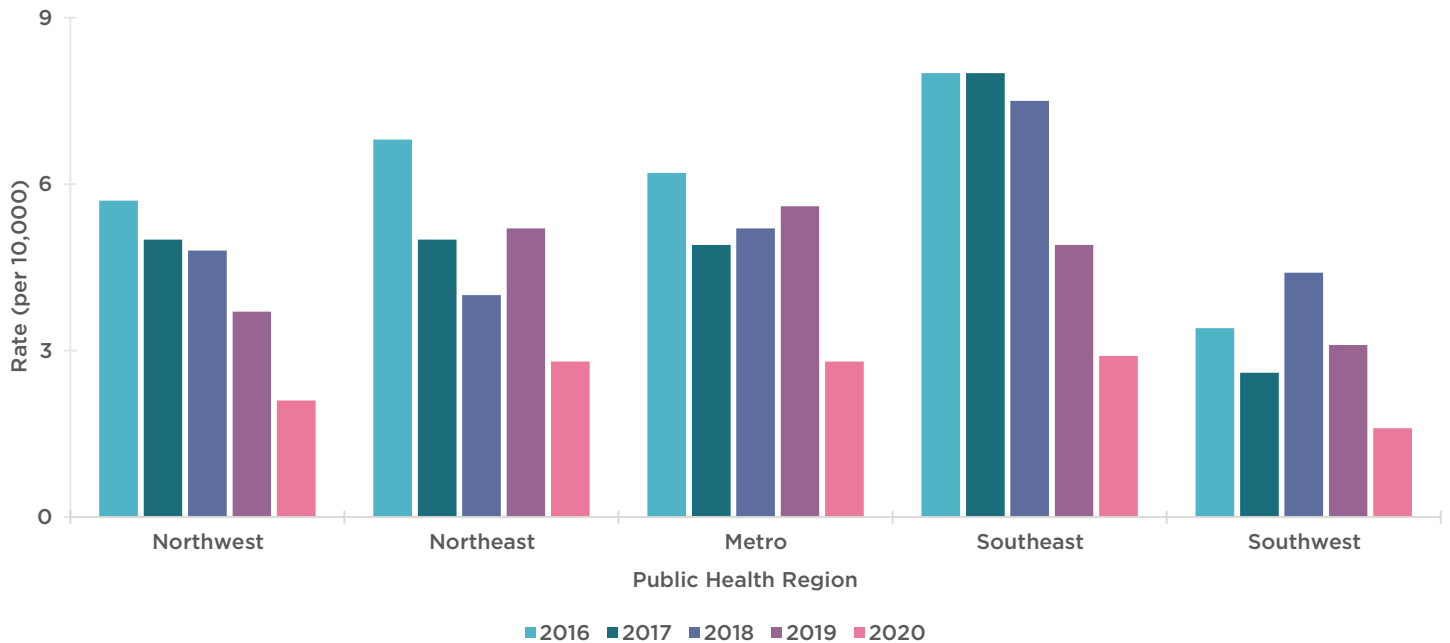
Boys, ages 0-9 years old have the highest asthma-related hospitalization rates. Hospitalization rates decline as males get older. Rates among females also decline as they reach their teens, but then begin to increase again in their 30's and 40's. Overall, females experience higher asthma-related hospitalization rates than males (5.0 per 10,000 compared to 4.3 per 10,000).



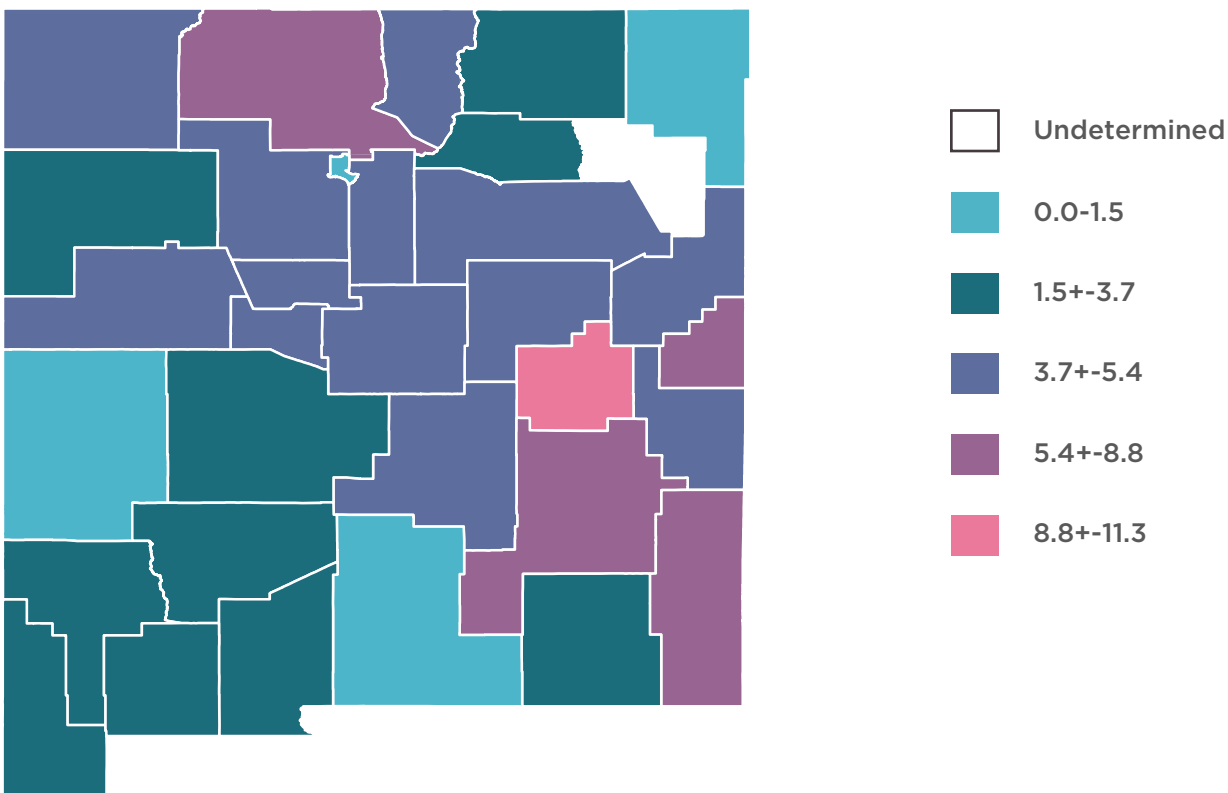
Charts represent data from 2016-2020 combined.

ASTHMA-RELATED HOSPITALIZATIONS BY GEOGRAPHY

The highest asthma-related hospitalization rates are in the Northeast (NE), Metro, and Southeast (SE) health regions. Since 2016, the SE has experienced a continued decrease in rates. However, prior to 2020, both the NE and Metro health regions had been seeing increases in hospitalization rates. The counties with the highest rates are Chaves, Curry, De Baca, Lea, and Rio Arriba.



ASTHMA-RELATED HOSPITALIZATIONS BY NM COUNTY, 2016-2020



All age groups; age-adjusted rates, per 10,000.

ASTHMA-RELATED HOSPITALIZATIONS AMONG NM CHILDREN AND ADULTS

	Children	Adults	Overall*
Overall hospitalization rate - 2020	4.4	1.8	2.5
Overall hospitalization rate - 2019	10.0	2.9	4.8
Gender			
Female	8.4	3.8	5.0
Male	12.6	1.4	4.3
Public Health Region - 2016-2020			
Northwest	8.5	2.7	4.3
Northeast	8.8	3.2	4.8
Metro	12.0	2.5	5.0
Southeast	15.8	2.9	6.3
Southwest	5.3	2.2	3.0

Rates per 10,000. *Age-adjusted rate.

A NOTE ABOUT 2020 DATA

The COVID-19 pandemic has drastically changed individuals' behavior and environment worldwide. Although there were concerns that the spread of COVID-19 would increase asthma attacks, data suggest a drop in emergency department visits and hospitalizations, especially for pediatric patients with asthma during increased public health restrictions. While the pandemic may be accelerating the adoption of expanded resources and practices for asthma self-management (e.g., increased use of telehealth)⁴, trends from data collected in 2020 should be interpreted with caution.

DATA SOURCES & REFERENCES

The New Mexico Department of Health Hospitalization Inpatient Discharge Dataset: These data include inpatient hospitalizations of individuals who are discharged from 36 of New Mexico's acute care, non-federal hospital facilities. Data and more information available from: <https://www.nmtracking.org/epht-view/health/breathing/Asthma.html>

Asthma-related hospitalization definition: classified as primary or principal diagnosis code ICD-9-CM 493XX or ICD-10-CM J45.

Other references:

1. New Mexico Department of Health. Behavioral Risk Factor Surveillance System. Available from: <https://ibis.health.state.nm.us/>
2. Nurmagambetov T, Kuwahara R, Garbe P. The Economic Burden of Asthma in the United States, 2008-2013. *Ann Am Thorac Soc.* 2018 Mar;15(3):348-356.
3. Goldring J, Hanrahan L, Anderson HA, Remington PL. Asthma Hospitalizations and Readmissions Among Children and Young Adults - Wisconsin, 1991 - 1995. *Morbidity and Mortality Weekly Report* 46(1):726-729 August 8, 1997.
4. Yang Z, Wang X, Wan XG, Wang ML, Qiu ZH, Chen JL, Shi MH, Zhang SY, Xia YL. Pediatric asthma control during the COVID-19 pandemic: a systematic review and meta-analysis. *Pediatr Pulmonol.* 2021 Oct 21. doi: 10.1002/ppul.25736.

RESOURCES

Local programming:

New Mexico Department of Health Asthma Control Program: <https://nmhealth.org/about/erd/eheb/ap/>
 Get involved with the New Mexico Council on Asthma: <https://www.nmasthma.org/>

Learn more about asthma:

Centers for Disease Control and Prevention (CDC): <https://www.cdc.gov/asthma>
 National Heart, Lung, and Blood Institute (NHLBI): <https://www.nhlbi.nih.gov/health-topics/asthma>
 American Lung Association (ALA) Asthma Basics course: <https://www.lung.org/asthma-basics>

Explore more data:

New Mexico Indicator-Based Information System: <https://ibis.health.state.nm.us/>
 New Mexico Environmental Public Health Tracking Program: <https://www.nmtracking.org/>

For more information contact:

Alex Coyle
 Asthma Epidemiologist
 (505) 827-2652
Alexander.Coyle@state.nm.us

New Mexico Asthma Control Program
 1190 S St Francis Dr, Suite N1300
 Santa Fe, NM 87505
<https://nmhealth.org/about/erd/eheb/ap/>

