Pennsylvania
Department of Health

Asthma Control Program Maps Guide

Introduction

Pennsylvania (PA) is home to over 13 million people.[1] One in 10 adults and children reported having asthma in 2022[2] compared to one in 13 adults and one in 15 children nationally.[3] While the number of adults with lifetime or current asthma generally increased over the last 10 years, lifetime and current asthma among children slightly decreased.[2] In adults, current asthma is more common in women, younger adults, people with less than a high school education, with an income less than $15,000, who identify as Black or Hispanic, are current smokers, and people with obesity.[2] In children, asthma is generally more common in boys, people who identify as Black or Hispanic, and ages 5-14 years.[2]

The Asthma Control Program (ACP) provides guidance, leadership, and support for the expansion and coordination of asthma services to improve the quality of life of those living with asthma and to reduce asthma-related burden on the health care system. Organizations, communities, and program providers can expand the reach and use of services, informed by the conditions where people are born, grow, work, live, and age.

The number of asthma hospitalizations is one of the most common ways to see for whom and where asthma programs and services are most needed. Often, program planners need information for small geographical areas for which hospitalizations or other common asthma measures are not easily accessible or available.

The ACP identified several metrics for maps to provide program planners with other options to see for whom and where asthma programs and services are most needed. These maps are a visual resource to support Strategic Plan goals, and a guide for how to think about asthma program planning at a systems and policy level. We often think of individual-level risk factors such as genetics, income, and behaviors (such as smoking or food choices) as explanations for differences in health outcomes. However, not everyone has the resources (social, economic, etc.) to modify or control their situation. This leads program providers to consider social, place-based, policy, and systems-level causes and the close relationship between environment and health outcomes. Asthma is just one of many health outcomes related to the metrics featured here.

Provided below are explanations for why these metrics are used and examples of how you can begin to think about using this information in your community.

Description of Measures

Asthma hospitalizations – Asthma hospitalizations count how frequently asthma is treated in the hospital. Hospitalizations are costly and can indicate that asthma control and management supports are not available or accessible to all. Source: Asthma hospitalizations, age-adjusted rate 2016-2019, Pennsylvania Environmental Health Indicators Map, and the Pennsylvania Health Care Cost Containment Council (PHC4).

Asthma Capitals - Some U.S. cities are more challenging for people with asthma to live in because of air quality, access to care, and other factors. Identifying asthma capitals can raise awareness among leaders and the public as to the risk factors of asthma attacks and what can address them. Source: The Asthma and Allergy Foundation of America (2023). *2023 Asthma Capitals*. Retrieved from Asthma Capitals: Most Challenging Cities to Live In With Asthma.

Housing older than 1979 –As housing ages, more maintenance is needed to keep indoor asthma triggers at bay. Homeowners cannot always afford expensive home repairs. Older housing stock can tell program providers where home maintenance may be needed to control triggers.[4] Source: Area Health Resources Files (AHRF) 2009-2020. U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Workforce, Rockville, MD. Retrieved from Social Determinants of Health Database. Content last reviewed June 2023. Agency for Healthcare Research and Quality, Rockville, MD. Social Determinants of Health Database | Agency for Healthcare Research and Quality

Renters with children –Renters are dependent on landlords to act on housing maintenance. For this reason, renting families need support to identify all means possible to mitigate triggers and practice good asthma self-management. This is especially so for families with children. Source: Area Health Resources Files (AHRF) 2009-2020. U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Workforce, Rockville, MD. Retrieved from Social Determinants of Health Database. Content last reviewed June 2023. Agency for Healthcare Research and Quality, Rockville, MD. Social Determinants of Health Database | Agency for Healthcare Research and Quality

Historical Redlining –Neighborhoods deemed a risk for lenders by racist Home Owners' Loan Corporation categorizations in 1934 still bear outcomes today due to subsequent development decisions and policies. Known today as "redlining," this led to fewer economic and social resources and substandard housing, which relate to asthma triggers and care.[4] Source: Robert K. Nelson, LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," *American Panorama*, ed. Robert K. Nelson and Edward L. Ayers, accessed March 13, 2023, Mapping Inequality

Use Case Examples

Asthma Program –Ino is trying to expand the reach of her asthma education program and pursue new grants. The maps' presentation of asthma burden overlapping with social drivers of health informs the grants she writes and the geographic areas that her programming expansion will focus on.

County Health Department —Alek works for their county health department, which is starting a home assessment program. They use the maps as a reference for relationships between asthma, redlining, and housing older than 1979 in designing their logic model, and they eventually share the maps with outreach workers in conversations about prioritizing which community events to attend once the program is up and running.

Advocacy —To prepare for an upcoming town hall discussion about environmental concerns, Glenn shares the ACP map resources with his neighbors. He is interested in the asthma burden in the region among people who rent from the apartment complexes next to the highway.

Individual —Fabia has been noticing her child's asthma worsen after moving into a new city. While looking for resources online, she browses the ACP maps to help her understand the underlying context. She still has questions about environmental asthma triggers after reading the web site, so she asks her health care provider about her concerns.

Tell Us More

Use the "contact us" form to provide feedback to the ACP:

- If these maps were helpful, tell us how you used them.
- If these maps were not helpful, tell us why not.
- If there is another map or resource you would like to see, tell us what would be helpful to your work or your community.

Citations

1. US Census Bureau. (2024). *Pennsylvania State Profiles.* Retrieved February 22, 2024 from Pennsylvania - Census Bureau Profile

2. Pennsylvania Department of Health. (2024). *Behavioral risk factor surveillance system.* [Data Set]. Enterprise Data Dissemination Informatics Exchange. Retrieved February 22, 2024 from EDDIE (pa.gov)

3. Centers for Disease Control and Prevention. (2023, May 11). *Most recent national asthma data.* Retrieved March 20, 2024 from Most Recent National Asthma Data | CDC

4. Bryant-Stephens, T. C., Strane, D., Robinson, E. K., Bhambhani, S., & Kenyon, C. C. (2021). Housing and asthma disparities. *The Journal of allergy and clinical immunology*, *148*(5), 1121–1129. https://doi.org/10.1016/j.jaci.2021.09.023