

EXHALE

evidence-based asthma control strategies implemented by the **Kentucky Asthma Management Program**



Improve asthma control



Reduce health care costs



Inform decision-making

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EDUCATION on asthma self-management through expanding access to and delivery of asthma self management education (AS-ME) as needed

- AS-ME can improve asthma control and medication adherence while reducing ED visits, hospitalizations, and missed work or school days.*
- Over 25 U.S. programs have shown that AS-ME often can reduce health care costs within 1 to 3 years.*

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X-TINGUISHING smoking and secondhand smoke through reduced tobacco smoking and reduced exposure to secondhand smoke

- About 9% of U.S. adult asthma-related hospital emergency department (ED) visits are related to smoking and exposure to secondhand smoke in the home is linked to a 63% increase in asthma-related ED visits among low-income, urban children.*
- 87,145 Emergency Department visits for asthma between 2015 and 2019.**

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HOME VISITS for asthma trigger reduction and asthma self-management education through expanded access to and delivery of home visits

- Successful programs have provided education on how individuals or families can decrease their exposure to asthma triggers such as cockroaches, dust mites, mold, and secondhand smoke in the home.*
- Home visits reveal barriers to patient engagement, adherence, or asthma control not previously appreciable in outpatient, ED, or hospital settings.*

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ACHIEVEMENT of guidelines-based medical management

- Shared treatment decision-making between people with poorly controlled asthma and their health care providers can lead to improved asthma control, fewer asthma-related medical visits, decreased rescue medication use, and better lung function.*
- Approaches include: strengthening systems supporting guidelines-based medical care, appropriate prescribing and use of inhaled corticosteroids and improving access and adherence to asthma medications and devices.*

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LINKAGES and coordination of care across settings through promoting coordinated care for people with asthma

- Successful coordination of care can be facilitated by partnerships and health information exchange between organizations or sectors such as health care, education, and non-governmental organizations.*
- Improved coordination of care could reduce total United States health care expenditures by \$240 to \$310 billion annually.*

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ENVIRONMENTAL policies or best practices to reduce asthma triggers from indoor, outdoor, and occupational sources

- Strong evidence links outdoor air pollutants like vehicle exhaust and factory emissions to increased asthma-related ED visits and hospitalizations.*
- Approaches include: facilitating home energy efficiency (like home weatherization assistance), smoke-free policies and clean-diesel school buses; and eliminating/reducing exposure to workplace asthma triggers.*

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EDUCATION on asthma self-management (AS-ME)

National Association of School Nurses' Managing Chronic Health Conditions Course:

<https://www.pathlms.com/nasn/courses/11625>

CDC's Sustainable delivery of AS-ME: <http://www.cdc.gov/sixeighteen/asthma>

Asthma training tools for Community Health Workers: <http://www.cdc.gov/stltpublichealth/chw>

The American Lung Association's Asthma Basics page:

<https://www.lung.org/lung-health-diseases/lung-disease-lookup/asthma/asthma-education-advocacy/asthma-basics>

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X-TINGUISHING smoking and secondhand smoke

Quit Now Kentucky, a free tobacco cessation service: <https://www.quitnowkentucky.org>

CDC's smoking and tobacco use and cessation page: <http://www.cdc.gov/tobacco>

American Lung Association's smoking and vaping cessation page: <https://www.lung.org/quit-smoking>

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HOME VISITS for asthma trigger reduction and asthma self-management education

Comprehensive CDC/HUD/EPA checklist for identifying home asthma triggers:

https://www.cdc.gov/asthma/pdfs/home_assess_checklist_P.pdf

CDC's Strategies for Addressing Asthma in Homes: https://www.cdc.gov/asthma/pdfs/Asthma_In_Homes_508.pdf

EPA's resources for creating asthma home visit programs: <https://www.epa.gov/asthma/asthma-home-visit-programs>

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ACHIEVEMENT of guidelines-based medical management

National Environmental Education Foundation's (NEEF) Environmental Management of

Pediatric Asthma Course: <https://neef.inquisiqlms.com/catalog/>

Asthma action plan created by the National Heart Lung and Blood Institute:

https://www.nhlbi.nih.gov/files/docs/public/lung/asthma_actplan.pdf

EPR 3 Guidelines for diagnosis and management of asthma:

<https://www.nhlbi.nih.gov/health-topics/guidelines-for-diagnosis-management-of-asthma>

Allergy and Asthma Foundation of America's Asthma Management Education Online Course

for Health Care Professionals: <https://www.aafa.org/continuing-education-for-health-care-professionals/>

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LINKAGES and coordination of care across healthcare settings

Allergy and Asthma Network's COVID-19 school asthma resources:

<https://allergyasthmanetwork.org/health-a-z/covid-19/covid-19-school-resources-for-managing-asthma-and-allergies/>

EPA's Indoor Air Quality Tools For Schools Action Kit:

<https://www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-action-kit>

CDC's strategies for addressing asthma in schools:

https://www.cdc.gov/asthma/pdfs/strategies_for_addressing_asthma_in_schools_508.pdf

Implementation guidance for the Patient Centered Medical Home model of care: <http://pcmh.ahrq.gov>

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ENVIRONMENTAL policies or best practices to reduce asthma triggers

Kentucky respiratory health data through Environmental Public Health Tracking:

<https://kyibis.mc.uky.edu/ehl/health/RespiratoryHealth.html>

EPA's protocols for home energy upgrades to improve indoor air quality:

<https://www.epa.gov/indoor-air-quality-iaq/protocols-home-energy-upgrades>

CDC's smoke-free policy fact sheets:

https://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/protection/improve_health/index.htm

Sources (for opposite page)

*Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention. Retrieved on November 18, 2021, from https://www.cdc.gov/asthma/pdfs/EXHALE_technical_package-508.pdf

Hospital Inpatient Discharge Data and Outpatient Data: Office of Health Data and Analytics, Kentucky Cabinet for Health and Family Services; and Population Estimates: Kentucky State Data Center, University of Louisville. Retrieved on November 18, 2021, from **Kentucky Environmental Public Health Tracking Program, EnviroHealthLink website: <https://kyibis.mc.uky.edu/ehl/dataportal/>

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