

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-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 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 2015-2019.**

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

- 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 (including home weatherization assistance), smoke-free policies and clean-diesel school buses; and eliminating/reducing exposure to workplace asthma triggers.*

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Guide to Resources

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EDUCATION on asthma self-management (AS-ME)

[National Association of School Nurses' Managing Chronic Health Conditions Course](#)

[CDC's Sustainable delivery of AS-ME](#)

[Asthma training tools for Community Health Workers](#)

[The American Lung Association's Asthma Basics page](#)

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X-TINGUISHING smoking and secondhand smoke

[Quit Now Kentucky, a free tobacco cessation service](#)

[CDC's smoking and tobacco use and cessation page](#)

[American Lung Association's smoking and vaping cessation page](#)

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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](#)

[CDC's Strategies for Addressing Asthma in Homes](#)

[EPA's resources for creating 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](#)

[Asthma action plan created by the National Heart Lung and Blood Institute](#)

[EPR 3 Guidelines for diagnosis and management of asthma](#)

[Allergy and Asthma Foundation of America's Asthma Management Education Online Course for Health Care Professionals](#)

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LINKAGES and coordination of care across settings

[Allergy and Asthma Network's COVID-19 school asthma resources](#)

[EPA's Indoor Air Quality Tools For Schools Action Kit](#)

[CDC's strategies for addressing asthma in schools](#)

[Implementation guidance for the Patient Centered Medical Home model of care](#)

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ENVIRONMENTAL policies or best practices to reduce asthma triggers

[Kentucky respiratory health data through Environmental Public Health Tracking](#)

[EPA's protocols for home energy upgrades to improve indoor air quality](#)

[CDC's smoke-free policy fact sheets](#)

Sources

*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 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/>