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Breathe Easy, Live Well:

Promoting Healthier Homes to Combat Asthma and Respiratory Risks

OUR IMPACT

Healthy Housing Omaha's (HHO) programs are designed to address health and safety concerns frequently seen in substandard housing. HHO works to reduce the economic and mental burden of illness caused by unhealthy housing conditions.

HHO's programs are evidencebased and holistically designed. Staff work to understand the whole picture of a family and their home to best curate services that will be most impactful to them.



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INTRODUCTION TO HEALTHY HOUSING INTERVENTIONS

Introducing HUD's Eight Healthy Housing Principles

- The CDC has found that 21% of asthma cases in the U.S. may be attributable to exposure to dampness and mold in the home.
- Some studies show that reducing indoor allergens through environmental intervention can reduce asthma-related hospitalizations by up to 79% in children.
- About 30% of asthma cases in children are linked to cockroach allergen exposure, especially in urban areas.



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INTRODUCTION TO HEALTHY HOUSING INTERVENTIONS

- Radon exposure is estimated to be responsible for about 21,000 lung cancer deaths each year in the U.S., and while its not linked to asthma, it is a significant health risk and can worsen respiratory health.
- Regular maintenance prevents small issues like leaks or cracks from developing into larger problems, such as mold growth or pest infestations, both of which can worsen asthma symptoms.
- Asthma symptoms are often triggered by cold air, and having proper insulation and temperature control helps maintain a healthier indoor environment.



INTRODUCTION TO HEALTHY HOUSING INTERVENTIONS

By combining education, healthy home assessments, environmental interventions, coordinated care, and HHO's programs, (AIR program), HHO directly implements the CDC's EXHALE strategies.

Education

on asthma self-management

X-tinguishing

smoking and exposure to secondhand smoke

Home visits for trigger reduction and asthma self-management education

Achievement

of guidelines-based medical management

Linkages

and coordination of care across settings

Environmental

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

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Asthma In-home Response (AIR) PROGRAM

Healthy Home Assessments

Comprehensive in-home evaluations to identify potential health and safety hazards, including lead-based paint, asthma triggers, radon, mold, and other environmental concerns.

Hazard Identification

Detailed analysis of identified hazards, their severity, and the necessary steps to remediate or mitigate them, ensuring a healthier home environment.

Custom Supply Kits

Provision of tailored kits containing essential items such as HEPA air filters, HEPA vacuums, allergen-proof bedding, cleaning supplies, and other resources to help families maintain a healthy home.

Serving Vulnerable Populations

Prioritizing families with young children, older adults, individuals with disabilities, and those with chronic health conditions to address the disproportionate impact of unhealthy housing on these populations.

Ongoing Support

Follow-up visits and assistance to ensure families can effectively use the provided supplies and maintain a healthy home environment over time.





The Connection Between Housing and Health

Asthma and Respiratory Health: Poor indoor air quality, often due to mold, dust mites, and poor ventilation, can exacerbate respiratory conditions like asthma. Studies show that children living in healthier home environments with improved ventilation and reduced allergens experience fewer asthma-related hospital visits and require less emergency care.

Environmental Protection Agency, 2022

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RESULTS				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Table 2. Asthma-related outcomes compared from baseline to 6-months (n=75)						
	Baseline	6-month	OR ^a	p-value		
Asthma-related outcomes						
Asthma attacks (mean)	1.45	0.67	0.31	0.001		
Emergency room visits (mean)	0.67	0.09	0.16	>0.0001		
Hospitalizations (mean)	0.19	0.02	0.11	0.016		
^a OR stands for Odds Ratio						
Table 3. Asthma outcomes reported for the past 6-months pre- and post-intervention						
		<u>Initial</u>	<u>e</u>	<u>6-month</u>		
Asthma attacks	ma attacks 41 22		22			
Emergency room visits 28		6				
Hospitalizations		9		2		
<i>Effectiveness of a community driven asthma intervention project asthma in home response</i> . Sept 22 Journal of Asthma (Dr. Aislinn Rookwood in conjunction with HHO).						

SAMPLE POPULATION DEI	MOGRAPHICS	Summinum)
Table 1. Characteristics of sample population (n=75)		
	Sample (%)	
Age (median, year)	10	1
Age Categories		\sim
3-5	26.0	Summer of the
6-10	29.3	
11-15	34.7	~
16-18	10.0	*. 1175/1111110
Gender		0.0.1 9.6 0.8
Female	32.0	TINO
Male	68.0	1.1.1.1.4
Race/Ethnicity		
White	18.7	
Hispanic/Latino	41.3	(\cdot)
Black/African American	40.0	
Insurance		
Private	11.1	
Medicaid	87.5	Street and Street Street
No insurance	1.4	
Effectiveness of a community driven asthma intervention pr of Asthma (Dr. Aislinn Rookwood in conjunction with HHO).	roject asthma in home response. Sept 22 Journal	











Environmental Health Perspectives: Children exposed to mold in early childhood had a 40% higher risk of needing emergency asthma treatments.

- World Health Organization (WHO)- dampness and mold exposure may increase the risk of respiratory symptoms by 50%.
- Institute of Medicine- ~20-30% of buildings in the United States have some form of dampness or mold. Children spend approximately 90% of their time indoors, this level of exposure is significant, especially for those with asthma.

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CASE STUDY

Client

- 34 y/o mother, 17 y/o daughter
- No HVAC, only window A/C unit
- Mold in basement (daughter's bedroom) and in living room.
- Mold- trigger of daughter's asthma.
- Cold temp in winter
- Radon level 6.3

HHO Intervention

- New HVAC
- Remove window unit, seal opening.
- Cleaned gutters, new downspouts, splash blocks
- Seal cracks in foundation and around windows,
- Remove drywall and replace
- Education
- Custom AIR Supply Kit

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CALL TO ACTION

- Upstream intervention
 Healthy Housing Assessments
 - Interventions and Education
 - Connect with local agency, health department, hospital or nonprofit to create a strategic vision to act now to reduce asthma, radon exposure and other health risks in the home.









INCOME QUALIFICATION

Household Size	Maximum Income Limit (80% AMI)			
1 person	\$61,350			
2 persons	\$70,100			
3 persons	\$78,850			
4 persons	\$87,600			
5 persons	\$94,650			
6 persons	\$101,650			
7 persons	\$108,650			
8 persons	\$115,650			
*Data source: HUD Income Limits for Douglas County, Nebraska as of 4/1/2024 Breathe easy. Live we				