

# **IMPLEMENTATION AND MANAGEMENT OF VIRTUAL HOME VISITS FOR ASTHMA MANAGEMENT**

**Version #3 (February 2022)**

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VIRTUAL HOME VISITS FOR ASTHMA MANAGEMENT**

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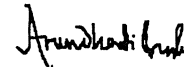
Section of Environmental Epidemiology and Toxicology (SEET)  
Office of Public Health  
Louisiana Department of Health

**APPROVED:**

**Author/Project Manager:**

*Louisiana Department of  
Health*

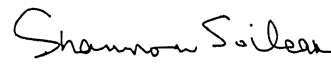
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#2

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**VERSION HISTORY**

<b>Version No.</b>	<b>Date</b>	<b>Review of Changes</b>
Version #1	Dec 2020	Created
Version #1.1	Mar 2021	Platform used to conduct Virtual Home Visits updated
Version #2	Oct 2021	Change in staffing at OLOLCH; Criteria for Virtual Home Visits updated (environmental score reduced from 4 to 2)
Version #3	Feb 2022	Change in when program evaluations are conducted for clients not qualifying for Virtual Home Visits; Change in staffing at GHHI; Added optional educational handout on integrated pest management strategies

## **I. PURPOSE**

This document describes the Standard Operating Procedure (SOP) for the Virtual Home Visits for asthma management under the BREATHE program (Bringing Respiratory Health Equity for Asthmatics Through Healthier Environments). It is intended to guide the implementation and management of the program, as developed under the US Environmental Protection Agency's (EPA's) State Environmental Justice Cooperative Agreement (SEJCA) from 2020-2022.

## **II. APPLICABILITY AND SCOPE**

This SOP is applicable during all phases of the virtual home visits under the BREATHE program, including client identification, enrollment, pre-screening, transfer, educational home visits, case evaluation and program evaluation. It is applicable to all parties involved in the BREATHE Virtual Home Visits program at the Louisiana Department of Health and Our Lady of the Lake Children's Hospital (LOLCH).

## **III. SUMMARY OF PROCEDURES**

The BREATHE Virtual Home Visit program is designed to bring asthma and Healthy Homes education to assist with asthma management in areas that have a high burden of asthma, COVID-19, as well as social and environmental vulnerability. Individuals interested in participating in the program will be identified during contact tracing by LDH. These individuals will then be followed up with by LDH to better understand their asthma status and any potential environmental issues. Individuals with uncontrolled asthma and significant home environmental triggers (as determined through the pre-screening – see section VI) will be provided three Virtual Home Visits, one month apart, by trained healthcare providers at Our Lady of the Lake Children's Hospital. Individuals who do not qualify for Virtual Home Visits will be provided educational materials on clinical and environmental approaches to asthma management by either postal or electronic mail, per their preference. All individuals will be surveyed three months after the first home visit, or one month after educational materials were sent to those who did not qualify for virtual visits, to be evaluated on their current knowledge of asthma management and environmental trigger reduction, current asthma status and program evaluation. Additionally, the LDH team will meet at least monthly to review internal statistics on program implementation to assure quality control and a positive client experience (see section VIII).

#### IV. DEFINITIONS

BREATHE	Acronym that stands for ‘Bringing Respiratory Health Equity for Asthmatics Through Healthier Environments’. It is an environmental health-focused asthma management program, housed at LDH, which aims to bring comprehensive environmental health services to low-income residents to assist with better asthma management.
EPA	Environmental Protection Agency
HIPAA	Health Insurance Portability and Accountability Act of 1996 (HIPAA) is a federal law that required the creation of national standards to protect sensitive patient health information from being disclosed without the patient’s consent or knowledge ( <a href="https://www.cdc.gov/phlp/publications/topic/hipaa.html">https://www.cdc.gov/phlp/publications/topic/hipaa.html</a> )
IEQES	SEET’s Indoor Environmental Quality Education Service – operates a monitored hotline and provides personalized guidance on indoor environmental quality concerns expressed by Louisiana callers
LDH	Louisiana Department of Health ( <a href="https://ldh.la.gov/">https://ldh.la.gov/</a> )
SEET	Acronym that stands for ‘Section of Environmental Epidemiology and Toxicology’. It is housed in the Bureau of Infectious Disease (BID), in the Office of Public Health (OPH), in the Louisiana Department of Health (LDH). Using an applied science approach, SEET is responsible for investigating the health effects of environmental exposures in populations. It supports, collaborates, and participates in environmental health research. SEET is committed to reducing any known environmental threat to the public's health; it also provides information and data to the public to ensure better government policies and personal choices. Public health education efforts by SEET promote awareness of environmental health issues and are an integral part of its mission. For more information, see: <a href="https://ldh.la.gov/index.cfm/subhome/22">https://ldh.la.gov/index.cfm/subhome/22</a>
SEJCA	State Environmental Justice Cooperative Agreement

#### V. PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES

Personnel involved in the BREATHE Virtual Home Visit program are listed in alphabetic order.

Name	Job Title	Organization
Arundhati “Runa” Bakshi, Ph.D.	Environmental Health Scientist Coordinator	Section of Environmental Epidemiology & Toxicology, Office of Public Health, Louisiana Department of Health
<b>Role in the Project:</b> Manage all aspects of program design, implementation, and evaluation; Conduct data analyses to identify areas of concern and populations at-risk as required; Write SOP and project reports; Submit manuscripts for publication		

**Qualifications:** Dr. Bakshi holds a BS in Biology and Chemistry, and a PhD in Molecular Biology. She has over 5 years of experience in leading collaborative projects, including design, planning, implementation and evaluation, scientific data analysis, preparing manuscripts for publication, and mentoring students towards scientific careers. As a cross-disciplinary scientist, she is trained in both the technical aspects of environmental epidemiology as well as the mechanisms through which environment can influence health. In her current position at the Louisiana Department of Health, she is bringing together her diverse skills, as well as her interest in promoting health equity and environmental justice, to lead the BREATHE asthma initiative as part of the EPA State Environmental Justice Cooperative Agreement.

Name	Job Title	Organization
Brendan Brown	Director of Research	Green and Healthy Homes Initiative
<b>Role in the Project:</b> Act as liaison between with Green and Healthy Homes Initiative and provide technical assistance in the design of the BREATHE initiative.		
<b>Qualifications:</b> Mr. Brown graduated with a Masters of Health Science in Environmental Health from Johns Hopkins Bloomberg School of Public Health. He also received a Risk Science and Public Policy Certificate with a focus on biostatistics, applied environmental epidemiology, risk communication and management, health impact assessments, disease surveillance and program evaluation.		

Name	Job Title	Organization
Colette Maser, MPH&TM, teaching credential	Indoor Environmental Quality Coordinator	Section of Environmental Epidemiology & Toxicology, Office of Public Health, Louisiana Department of Health
<b>Role in the Project:</b> Conduct client enrollment, pre-screening and transfer to OLOLCH team; Provide guidance related to clients' indoor environmental concerns; Provide educational materials to clients who do not qualify for a virtual home visit based on pre-screening results; Create and manage data management tools in REDCap software		
<b>Qualifications:</b> Ms. Maser holds a Bachelor's degree in Biochemistry from Smith College, a single subject teaching credential in biological science from the state of California, and a Masters of Public Health and Tropical Medicine from Tulane University School of Public Health and Tropical Medicine. She taught high school for twelve years before making the transition to public health.		

Name	Job Title	Organization
Kate Friedman, MNS	Environmental Health Scientist Supervisor	Section of Environmental Epidemiology & Toxicology, Office of Public Health, Louisiana Department of Health
<b>Role in the Project:</b> Assist with scientific analysis, project input and review		
<b>Qualifications:</b> Ms. Friedman holds a BS in Environmental Biology and Master of Natural Sciences degree in Physical Geography with Pathobiological Sciences minor. She has over 13 years of experience in Louisiana's Health Department working as both a Geographic System Analyst, Environmental Health Scientist Coordinator, and Supervisor. Her prior Environmental Science experience include lab work in an Environmental Health Microbiology lab, work as a civilian Research Participant with the US Army related to the Clean Water Act, and as a Research Associate with Louisiana State University Department of Civil Engineering. Currently, as the Principal Investigator of the CDC-funded Environmental Public Health Tracking Program, she oversees initiatives and provides review of project activities.		

Name	Job Title	Organization
Kathleen Aubin, MSPH	Environmental Health Scientist Manager	Section of Environmental Epidemiology & Toxicology, Office of Public Health, Louisiana Department of Health
<b>Role in the Project:</b> Assist with the planning and development of the workplan, budget planning and outreach activities		
<b>Qualifications:</b> Ms. Aubin holds a BS in Medical Technology from LSU Medical Center and a MSPH in Environmental Health Science from Tulane University School of Public Health. She has approximately 20 years of environmental health science experience, which includes nearly 18 years with the Louisiana Department of Health. Much of her experience includes assessing environmental data and preparing health consult reports based upon this data. In addition, she has participated in community health education outreach efforts with regard to conveying environmental data results to various communities. In her current role, she is responsible for managing 3 programs housed within the Section of Environmental Epidemiology and Toxicology: Environmental Public Health Tracking, Occupational Health, and Public Health Assessment.		

Name	Job Title	Organization
Michael McKnight	VP Policy and Innovation	Green and Healthy Homes Initiative
<b>Role in the Project:</b> Act as liaison between with Green and Healthy Homes Initiative and provide technical assistance in the design of the BREATHE initiative.		
<b>Qualifications:</b> Michael McKnight holds a degree in biomedical engineering from Harvard University. He currently heads advocacy, policy analysis, and leads work on innovative financing and partnerships at GHHI. He has focused on reimbursement for healthy homes interventions from Medicaid and other health care payers and the return on investment of education and environmental control in combatting asthma. He enjoys taking the lessons learned on the ground and formulating policy recommendations or identifying best practices to take to scale.		

Name	Job Title	Organization
Shannon Soileau, MS	Section Chief	Section of Environmental Epidemiology & Toxicology, Office of Public Health, Louisiana Department of Health
<b>Role in the Project:</b> Facilitate collaboration with other LDH Programs and participate in the planning and development of the work plan, budget, and outreach activities.		
<b>Qualifications:</b> Ms. Soileau holds a BS in Chemistry from Louisiana Tech University and an MS in Environmental Toxicology from Louisiana State University. She has nearly 20 years of experience with the Louisiana Department of Health working in various capacities within the Section of Environmental Epidemiology and Toxicology. In her current role, she is responsible for directing and administering all activities performed by the Section of Environmental Epidemiology & Toxicology.		

Name	Job Title	Organization
Tracy Marquette, RRT, AE-C	Respiratory Therapist and Asthma Educator	Our Lady of the Lake Children's Hospital
<b>Role in the Project:</b> In charge of Virtual Home Visits; assist in recognizing a need for any home remediation and help overcome barriers that may be contributing to poor asthma control; working with the student health coordinators with Health Centers in Schools who will also help perform virtual visits and phone call follow ups; recording all collected data in an electronic format (REDCap); liaison with OLOLCH		

**Qualifications:** Ms. Marquette has 30 years of clinical experience in respiratory care, and 20 years of experience in the pediatric population. Becoming certified in asthma education in 2012, she helped to develop the Community Asthma Management Program (CAMP). This program utilizes phone call follow up to aid parents in recognizing when the child is in control of asthma. Throughout her career, Ms. Marquette has been helping parents in overcoming barriers such as paper work for albuterol to be given in schools, connecting with primary care physicians, specialists, and school nurses, assuring the patients have easy-to-understand Asthma Action Plans, encouraging collaboration with non-profits such as the Tuff project and working with Healthy hoops.

## VI. PROCEDURE

### 1. Client Identification

Starting Jan 2021, clients will be identified during COVID-19 Contact Tracing interviews, through the LDH contact tracing call centers. The script in Box 1 will be used to identify clients interested in participating in the program. Their contact information, including name, phone number, home address, email address and preferred mode of contact, will then be shared once a week in a password-protected spreadsheet format with **Dr. Bakshi** and **Ms. Maser** of the BREATHE team by LDH email. **Ms. Jenna Iberg Johnson** (LDH), who oversees the contact tracing initiative, will be responsible for sharing this file with the BREATHE team.

### 2. Client Enrollment

Client is enrolled in asthma intervention program and entered into the intervention case tracker, a custom REDCap data management system developed by LDH, to be used to enter data during pre-screening, the three virtual home visits and case evaluation. **Ms. Maser** (LDH) will be the primary party responsible for enrolling the client into the program and entering their case information into the case tracker **within one week** of receiving their information. Clients will be contacted using their preferred mode of communication. In the event of no response, **two further attempts** will be made to contact the client (either through a second email, followed by a phone call; or two additional phone calls). Each attempt will be made **within 4-10 days** of the prior attempt.

### Box 1: Script used by Contact Tracers to Identify Clients

If positive outreach, contact outreach, or symptomatic contact indicates they have asthma, ask the following questions:

**Q1:** Would you like the LDH Asthma Outreach team to follow up with you regarding free and personalized asthma and Healthy Homes education?

**Answer=N:** Ok.

**Answer to Q1=Y:**

**Q2:** Great! Do we have your permission to share your contact information with the LDH Asthma team?

**Answer=N:** Ok, I understand. If you change your mind or would like more information on LDH's asthma program you may call 1-888-293-7020.

**Answer to Q2=Y:**

**Q3:** Would you prefer to be contacted by phone or email?

You can expect someone from the asthma team to contact you within 2-3 weeks. In the meantime, if you have any questions or want more information about the LDH asthma program please call 1-888-293-7020.

*Please document in 'Comments' under Research Information on the case page layout that this case has opted in to the asthma pilot and their preferred method of contact. Please use the following format to document this information in 'Comments': **Asthma pilot opt in; phone** OR **Asthma pilot opt in; email**.*

The screenshot shows a form with the following fields:

- Relationship:** (empty)
- Research Information:** (expanded section)
  - Research Reason:** --None-- (dropdown menu)
  - Research Outcome:** Pending (text) with a note "This field is calculated upon save". Below it is a yellow-highlighted "Comments" field.
  - Research Attempt:** 0 (text) with a note "This field is calculated upon save".

#### **If client requests more information about the program before signing on:**

Asthma is one of the risk factors for severe illness with COVID-19, making its proper management crucial these days. An important aspect of asthma control is cultivating a healthy and asthma-friendly home. To that end, LDH's BREATHE program (Bringing Respiratory Health Equity for Asthmatics Through Healthier Environments) is offering free and personalized asthma and Healthy Homes education. If you opt into the program, you will be contacted by a BREATHE representative within 2-3 weeks, who will then try to understand your individual asthma and home environmental situation, and provide personalized guidance through phone, e-mail and/or postal mail. If your asthma is uncontrolled, you may be offered a free virtual home visit through the BREATHE program. This LDH initiative is in collaboration with the Our Lady of the Lake Children's Hospital, Green and Healthy Homes Initiative, Louisiana Center for Health Equity, and New Orleans Health Department.

### 3. Client Pre-Screening/Visit Eligibility

LDH staff completes pre-screening questionnaire with client (Appendix 2) to assess need for scaled services using the custom REDCap data management system created by LDH. **Ms. Maser** is the primary party responsible for contacting clients **within two weeks** of receiving their information.

Prior to administering the pre-screening, the terms of participation in the program are explained to the client. While the service will be provided to them for free, the client must agree to:

- i. Answer a pre-screening interview to determine eligibility for Virtual Home Visits
- ii. Answer a “pre-test” and “post-test” (at the end of the intervention period) to ascertain change in knowledge about environmental asthma triggers
- iii. Participating in three Virtual Home Visits (if they qualify)
- iv. Take two Asthma Control Tests, three months apart, if they don’t qualify for virtual visits
- v. Complete program evaluation after three months.

If clients agree, the interviewer administers the pre-screening questionnaire (Appendix 2) and Environmental Asthma Triggers Knowledge Test (Appendix 3).

Based on the results of the pre-screening, clients with need levels meeting the eligibility threshold are referred for remote educational visits with trained intervention personnel from OLOLCH. The eligibility threshold for Virtual Home Visits is Asthma Control Score  $\geq 3$  and Environmental Evaluation Score  $\geq 2$ . OLOLCH staff will then follow up with clients **within one week** of receiving their information to schedule their first Virtual Home Visit.

Clients who do not meet this threshold will be administered an Asthma Control Test (Appendix 4). All clients, regardless of whether they qualify for the virtual visit, will then be sent educational materials (Appendix 5-10) via mail or email. This material will cover: (a) clinical asthma management; (b) Healthy Homes education for asthma trigger management in the home; (c) checklist for potential environmental issues in the home; (d) contact information for SEET’s Indoor Environmental Quality Education Service (IEQ) hotline that is available to all Louisiana residents for personalized guidance on indoor environmental concerns; (e) information on accessing EPA’s Air Quality Index to better understand the effect of outdoor air pollutants on asthma, and self-regulate outdoor activities when it may be advisable to do so for sensitive populations; (f) information on free asthma education classes through OLOLCH. Clients who do not qualify for virtual visits will be followed up on by the BREATHE team in 2-3 weeks post initial contact. If clients complain about mold, allergies and/or pests, they will also be sent the *optional* materials on mold and allergic rhinitis (Appendix 11-13). **Ms. Maser** will be the primary party responsible for sending this information **within 48 hours** of contacting the client.

### 4. Virtual Home Visits

Three Virtual Home Visits will be provided to at least 50 eligible clients by OLOLCH, with each visit being conducted approximately one month apart. Virtual visits will be conducted using an existing HIPAA complaint platform, called ANDOR, already in place at OLOLCH and across

Franciscan Missionaries of Our Lady Health System. This solution ensures confidentiality and security, as well ease of use and flexibility for clients. During the first visit, trained professionals will evaluate the client's asthma status and the home's environmental conditions using the Assessment Form (Appendix 14) and Asthma Control Test (Appendix 4). During the next two visits, the virtual home visitors will administer the Asthma Control Test and troubleshoot any barriers to implementing previously discussed measures to improve asthma control. During these visits, they will reference the educational materials (Appendix 5-13) to discuss relevant topics and provide customized consultations based on the feedback received. If the clients complain of related issues, such as pests or allergic rhinitis (hay fever), the virtual visitors may also counsel the patients about pharmaceutical and non-pharmaceutical therapeutic options available for the same (Appendix 12-13). This may be particularly helpful for clients with allergy symptoms related to home environmental factors not directly under their control, or if they are unable to control symptoms by practicing the housekeeping methods recommended by the virtual home visitor. **Ms. Marquette** (OLOCH) will be the primary parties responsible for the successful scheduling and implementation of the Virtual Home Visits.

## 5. Evaluation

Case evaluations will take place **within a month of the third virtual visit OR within a month after educational materials were sent** to clients who did not qualify for a virtual visit. **Ms. Maser** will be the primary party responsible for completing case evaluations. Evaluation will include:

- i. Environmental Asthma Triggers Knowledge “post-test” (Appendix 3)
- ii. Asthma Control Test (Appendix 4)
  - Only to be administered to patients who were *not* eligible for virtual visits OR those who did not complete three virtual visits
  - The Asthma Control Test administered during the third session will be used for patients who received virtual visits.
- iii. Program Evaluation (Appendix 15)

Along with the measures from the Program Evaluation survey, the program will also be evaluated on the following measures on an annual basis:

- i. Total number of interested parties who could be reached, stratified by preferred mode of contact and number of attempts at making contact
- ii. Total number of clients who complete the all three Virtual Home Visits
- iii. Total number of clients who complete all aspects of the program, stratified those eligible for virtual visits and those not eligible.

## VII. RECORDS MANAGEMENT

All records will be managed and updated electronically through the custom REDCap portal and database developed for this project by LDH. As a case progresses through the process flow (see

section VI), their progress will be tracked and monitored through checkboxes within REDCap. The LDH or OLOLCH staff member who completes a particular step in the process will be responsible for marking that step as “complete” for that case on a front-end portal for the REDCap database, and completing all relevant information for that step through the same. All patient data and case information will be securely stored behind the LDH firewall in a REDCap database accessible only to select LDH staff. Weekly backups of these data will be made **every Friday at noon** by downloading them in a CSV (comma separated value) file format and saving them in an LDH shared drive, where the data will be protected behind LDH firewalls. **Colette Maser** will be the primary party responsible for these backups. All members of the team collecting, storing, downloading, reviewing, or in any way handling these data will be trained in LDH’s HIPAA (Health Insurance Portability and Accountability Act) protocols to protect patient privacy.

## VIII. QUALITY ASSURANCE AND QUALITY CONTROL

### 1. Monthly Programmatic Review

The LDH BREATHE team will meet monthly (at a minimum) to review the following programmatic measures based timestamps on survey completion for each case on REDCap. If the timeline for events does not match what is described in the SOP, the team will meet at least weekly until metrics improve.

- i. Number of clients enrolled in the program in the past month
- ii. Number of clients contacted in the past month, stratified by whether they were deemed eligible for home visits or not
- iii. Fraction of clients enrolled in the program who have been contacted (to date)
- iv. Average turnaround time in the past month, from “client information received” to “client enrolled in the program” (i.e., pre-screening is completed and client information is entered into the case tracker)
- v. Average turnaround time in the past month, from “client pre-screening completed” to “educational materials sent to client by mail/email”
- vi. Average turnaround time in the past month, from “Virtual Home Visit client information received by OLOLCH” to “first Virtual Home Visit scheduled”.

### 2. Biannual SOP Review

This SOP will be reviewed at least on a six-month basis and recertified or updated as needed. All changes made will be recorded in the Version History. Additionally, if any other changes need to be made outside of the review timeline, the SOP will be updated immediately as necessary and all changes documented within 1 month of their being implemented. All revised SOPs that supersede a preceding version will updated with a new version number, and follow the SOP naming convention below.

# BREATHE-VHH-01

Name of the  
program

Topic of  
SOP

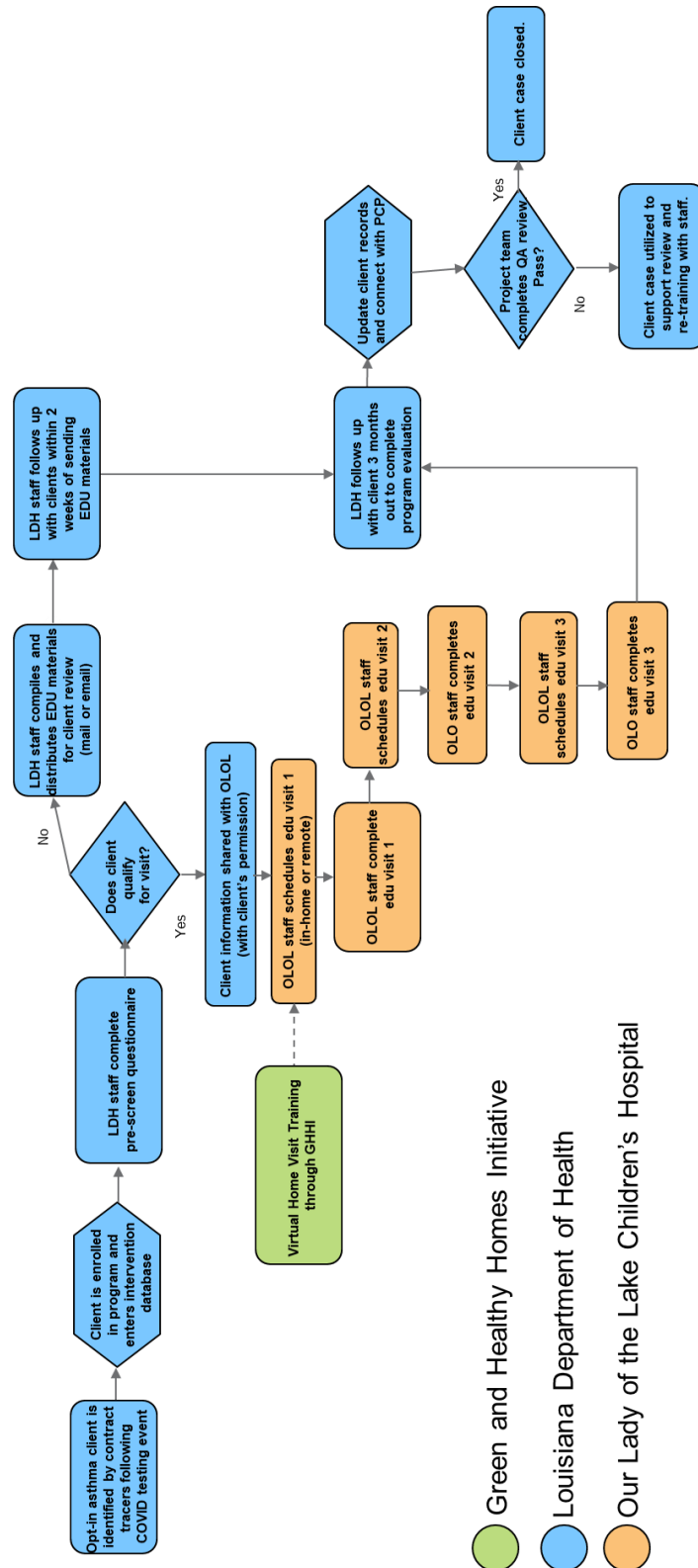
Version  
number

## IX. REFERENCES

1. A. Bakshi, A. Reilly, M. Ramson, C. Stewart, S. Soileau, and K. Friedman. (2019) [Childhood Asthma in East Baton Rouge Parish, 2010-2015](#). *Louisiana Morbidity Report*. March 2019 Special Environmental Edition.
2. [Lessons Learned: Asthma Healthy Homes Pilot](#). (2018) Green and Healthy Homes Initiative.
3. [Recommendations for Evaluation Metrics for Asthma Home Visiting Programs](#). (2019) Green and Healthy Homes Initiative.
4. [Comprehensive Environmental Healthy and Housing Assessment](#). (2016) Green and Healthy Homes Initiative, Baltimore.
5. [GHHI's Response to COVID-19](#). (2020) Green and Healthy Homes Initiative, Baltimore.
6. [Virtual Healthy Homes Toolkit](#). (2020) Green and Healthy Homes Initiative, Baltimore.
7. [2015 Pilot Asthma Home Visiting Program with Promotoras Evaluation Brief](#). (2016) New Mexico Asthma Control Program, New Mexico Department of Health.

## APPENDIX 1

### PROCESS FLOW DIAGRAM



## APPENDIX 2

### PRE-SCREENING SURVEY

*This survey has been slightly adapted from the GHHI CAPITAL REGION: COMPREHENSIVE ASTHMA INTERVENTION SCREENING FORM (Albany, NY).*

*The complete survey can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\Survey Questionnaire or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

## APPENDIX 3

### ENVIRONMENTAL ASTHMA TRIGGERS KNOWLEDGE TEST

*This survey has been adapted from pg. 19 of [2015 Pilot Asthma Home Visiting Program with Promotoras Evaluation Brief](#). (2016) New Mexico Asthma Control Program, New Mexico Department of Health.*

*The complete survey can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\Survey Questionnaire or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

## APPENDIX 4

### ASTHMA CONTROL TEST

*Asthma Control Test for children 4-11 years of age can be found at: [http://www.amherstpeds.com/docs/816205R0\\_childhoodasthmacontrolcest\\_printable.pdf](http://www.amherstpeds.com/docs/816205R0_childhoodasthmacontrolcest_printable.pdf)*

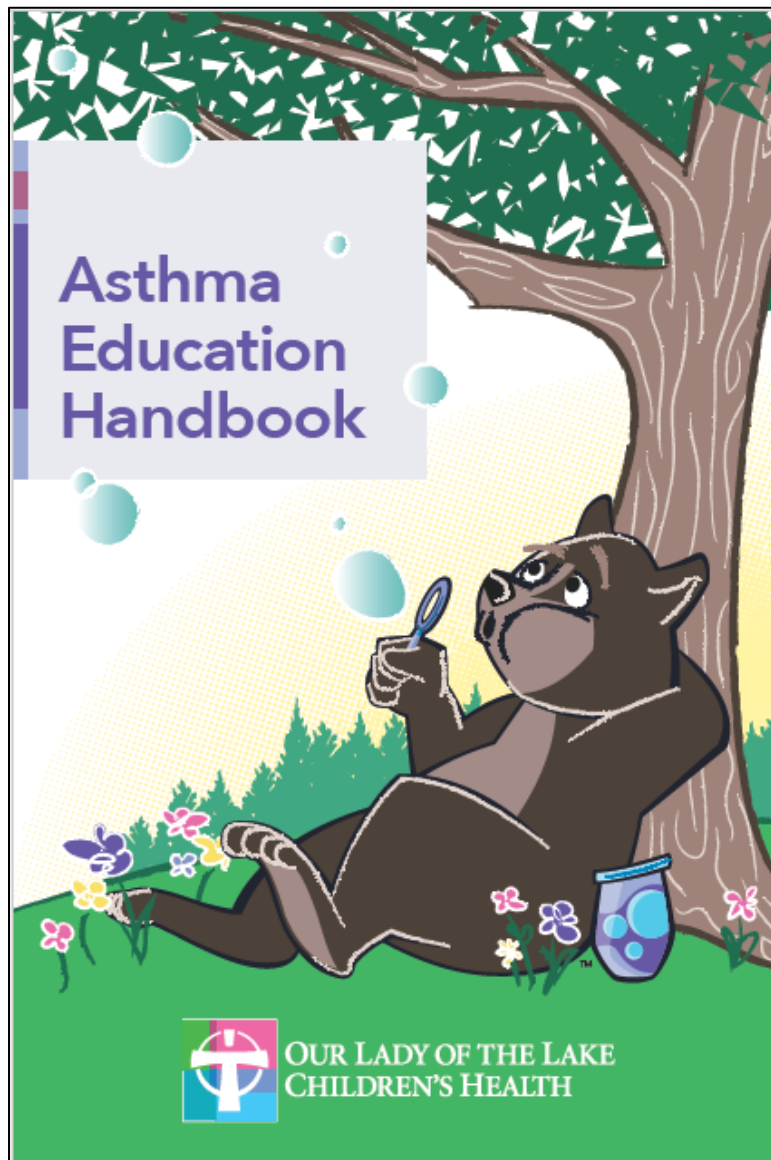
*Asthma Control Test for adults and children 12 years and above can be found at: [https://www.memphischildrens.org/Asthma\\_Control-12-and-older.pdf](https://www.memphischildrens.org/Asthma_Control-12-and-older.pdf)*

*All BREATHE can also be accessed at [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

**APPENDIX 5****ASTHMA EDUCATIONAL HANDBOOK**

*The Asthma Education Handbook, developed by Our Lady of the Lake Children's Hospital, is available from the links below. Downloaded copies of the latest versions can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

- English: [https://ololchildrens.org/assets/documents/2627-1-olol-ch-asthmaeducationhandbook-\(1\).pdf](https://ololchildrens.org/assets/documents/2627-1-olol-ch-asthmaeducationhandbook-(1).pdf)
- Spanish: [https://ololchildrens.org/assets/documents/es\\_2627-1-olol-ch-asthmaeducationhandbook.pdf](https://ololchildrens.org/assets/documents/es_2627-1-olol-ch-asthmaeducationhandbook.pdf)



## APPENDIX 6

## HOME CHARACTERISTICS AND ASTHMA TRIGGERS CHECKLIST

*This document has been developed through a collaboration between the US Environmental Protection Agency, the US Centers for Disease Control and Prevention and the US Department of Housing and Urban Development, and is available from the links below:*

- English: [https://www.epa.gov/sites/production/files/2018-05/documents/asthma\\_home\\_environment\\_checklist.pdf](https://www.epa.gov/sites/production/files/2018-05/documents/asthma_home_environment_checklist.pdf)
- Spanish: [https://espanol.epa.gov/sites/production-es/files/2019-03/documents/home\\_assessment\\_checklist\\_spanish.pdf](https://espanol.epa.gov/sites/production-es/files/2019-03/documents/home_assessment_checklist_spanish.pdf)

*Downloaded copies of the latest versions can be found in:*

*\\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*


Home Characteristics and Asthma Triggers

Checklist for Home Visitors

**Using this Home Assessment Can Help Make Homes Healthier.**





A trained home visitor can help find common asthma triggers in homes and discuss ways to reduce and remove triggers. Removing asthma triggers in the home, along with proper medical care can improve health.

The checklist is organized into a Core Assessment plus two appendices (Dust Mite Module and Mold and Moisture Module). The Core Assessment can be used for all types of housing and climates, but the additional modules can be used if dust mites or mold/moisture issues are suspected by the trained home visitor. The suggested action items in this checklist are generally simple and low cost.



Glossary of Asthma Triggers Commonly Found in Homes

<p><b>Combustion by-products</b></p> <p>Triggers: Particles and gases that are formed when fuel is burned.</p> <p>Where Found: Gas cooking appliances, fireplaces, woodstoves, candles, incense, cigarettes, and unvented kerosene and gas space heaters.</p> <p><b>Dust Mites</b></p> <p>Triggers: Body parts and droppings.</p> <p>Where Found: Mattresses, bedding, carpeting, curtains, upholstered furniture, and stuffed toys. Dust mites are too small to be seen with the naked eye. They can survive in a range of climates, but they prefer high humidity.</p> <p><b>Mold</b></p> <p>Triggers: Mold spores, fragments, and odors.</p> <p>Where Found: Indoor mold growth is often found in areas with more moisture such as kitchens, bathrooms, and basements, or areas where water damage has occurred. There are many types of mold and they can be found in any climate.</p>	<p><b>Pests</b></p> <p>Triggers: Cockroaches—Body parts and droppings. Rodents—Fur, skin flakes, and urine.</p> <p>Where Found: Areas with food and water such as kitchens, bathrooms, and basements.</p> <p><b>Pets with fur</b></p> <p>Triggers: Fur, skin flakes, and saliva.</p> <p>Where Found: Throughout entire home.</p> <p><b>Secondhand Smoke</b></p> <p>Triggers: Mix of smoke from the burning end of a cigarette, pipe, or cigar and the smoke exhaled by a smoker.</p> <p>Where Found: Anywhere that smoking is allowed.</p> <p><b>Volatile organic compounds (VOCs)</b></p> <p>Triggers: Chemical vapors that come from household items.</p> <p>Where Found: Products such as cleaning agents, deodorizers, air fresheners, perfumes, paints, nail polish, and nail polish remover.</p>
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## APPENDIX 7

### SEET CONTACT FOR INDOOR ENVIRONMENTAL CONCERNS

*The latest version of this document from SEET can be found in:*

*\\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

**Indoor Air Pollution**



The diagram shows a green house with a grey roof and a garage. Callout boxes point to different areas of the house, listing common indoor air pollutants:

- BEDROOMS:** Dust, Mites, Pet Hairs
- ATTIC:** Asbestos, Dust
- LIVING AREA:** Carpeting, Furniture chemicals, Tobacco smoke
- BATHROOMS:** Mildew, Cleaning Chemicals
- GARAGE / BASEMENT:** Radon, Solvents, Carbon Monoxide
- KITCHEN:** Smoke, Chemicals, Carbon Monoxide
- YARD:** Pollen, Dust, Pesticides

**Worried about your Indoor Environment?**

Call the LDH Section of Environmental Epidemiology & Toxicology's  
(SEET) Indoor Environmental Quality (IEQ) Hotline:

**1-888-293-7020**

<https://ldh.la.gov/index.cfm/page/829>

*SEET has over 20 years of experience providing phone consultations to residents across Louisiana. Let us help you identify steps you and your family can take to improve your indoor environment.*

Image Source: <http://indoorairthing.com/what-is-asthma-symptoms-management-treatment/>

## APPENDIX 8

## OUTDOOR AIR QUALITY AND ASTHMA

*This handout has been compiled from various resources available from CDC and EPA.*

*The latest version can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

*Spanish language publications on Outdoor Air Quality available from: <https://www.airnow.gov/all-publications-en-espanol/>*

**ASTHMA AND OUTDOOR AIR POLLUTION**

**1 Air pollution can make asthma symptoms worse and trigger attacks.**  
If you or your child has asthma, have you ever noticed symptoms get worse when the air is polluted? Air pollution can make it harder to breathe. It can also cause other symptoms, like coughing, wheezing, chest discomfort, and a burning feeling in the lungs.

Two key air pollutants can affect asthma. One is ozone (found in smog). The other is particulate pollution (found in haze, smoke, and dust). When ozone and particulate pollution are in the air, adults and children with asthma are more likely to have symptoms.

**2 You can take steps to help protect your health from air pollution.**  
➔ **Get to know how sensitive you are to air pollution.**

- Notice your asthma symptoms when you are physically active. Do they happen more often when the air is more polluted? If so, you may be sensitive to air pollution.
- Also notice any asthma symptoms that begin up to a day after you have been outdoors in polluted air. Air pollution can make you more sensitive to asthma triggers, like mold and dust mites. If you are more sensitive than usual to indoor asthma triggers, it could be due to air pollution outdoors.

➔ **Know when and where air pollution may be bad.**

- Ozone is often worst on hot summer days, especially in the afternoons and early evenings.
- Particulate pollution can be bad any time of year, even in winter. It can be especially bad when the weather is calm, allowing air pollution to build up. Particle levels can also be high:
  - Near busy roads, during rush hour, and around factories.
  - When there is smoke in the air from wood stoves, fireplaces, or burning vegetation.

**ENVIROFLASH FACT SHEET**

**What is EnviroFlash?**  
EnviroFlash is a system that sends e-mails about your daily air quality forecast. The message is the same air quality information that the local radio or television stations provide, plus suggested safety measures when levels are unhealthy. This service is provided by your state or local environmental agency and the US Environmental Protection Agency.

**Why is EnviroFlash important?**  
Exposure to high levels of air pollution can aggravate heart disease, asthma and other respiratory diseases. By being aware of the air quality levels, you can take precautions to protect your family.

**How does EnviroFlash work?**  
Air quality monitors located all over the United States take in information that is used to calculate the current Air Quality Index value. State and local environmental agencies then issue air quality forecasts based on measured air quality and weather information. The forecast is then provided to local radio and television stations, posted online and sent out through EnviroFlash.

**For additional information or to sign up, visit:**  
[www.enviroflash.info](http://www.enviroflash.info)

**What is the Air Quality Index?**

Air Quality Index	Health Effects
<b>Good 0-50</b>	Air quality is considered satisfactory, and air pollution poses little or no risk.
<b>Moderate 51-100</b>	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
<b>Unhealthy for Sensitive Groups 101-150</b>	Members of sensitive groups <sup>*</sup> may experience health effects. The general public is not likely to be affected.
<b>Unhealthy 151-200</b>	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
<b>Very Unhealthy 201-300</b>	Health alert: everyone may experience more serious health effects.
<b>Hazardous 301-500</b>	Health warnings of emergency conditions. The entire population is more likely to be affected.

\* Sensitive groups include: people with heart or lung disease (including asthma), older adults, and children.

**Air Quality Guide for Ozone**

Ground-level ozone is one of our nation's most common air pollutants. Use the chart below to help reduce your exposure and protect your health. For your local air quality, visit [www.airnow.gov](http://www.airnow.gov).

Air Quality Index	Who Needs to be Concerned?	What Should I Do?
<b>Good (0-50)</b>		It's a great day to be active outside.
<b>Moderate (51-100)</b>	Some people who may be unusually sensitive to ozone.	<b>Unusually sensitive people:</b> Consider reducing prolonged or heavy outdoor exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easy. <b>Everyone else:</b> It's a good day to be active outside.
<b>Unhealthy for Sensitive Groups (101-150)</b>	Sensitive groups include people with lung disease, such as asthma, older adults, children and teenagers, and people who are active outdoors.	<b>Sensitive groups:</b> Reduce prolonged or heavy outdoor exertion. Take more breaks, do less intense activities. Watch for symptoms such as coughing or shortness of breath. Schedule outdoor activities in the morning when ozone is lower. <b>People with asthma:</b> should follow their asthma action plans and keep quick relief medicine handy.
<b>Unhealthy (151-200)</b>	Everyone	<b>Sensitive groups:</b> Avoid prolonged or heavy outdoor exertion. Schedule outdoor activities in the morning when ozone is lower. Consider moving activities indoors. <b>People with asthma:</b> keep quick relief medicine handy. <b>Everyone else:</b> Reduce prolonged or heavy outdoor exertion. Take more breaks, do less intense activities. Schedule outdoor activities in the morning when ozone is lower.
<b>Very Unhealthy (201-300)</b>	Everyone	<b>Sensitive groups:</b> Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. <b>People with asthma:</b> keep quick relief medicine handy. <b>Everyone else:</b> Avoid prolonged or heavy outdoor exertion. Schedule outdoor activities in the morning when ozone is lower. Consider moving activities indoors.
<b>Hazardous (301-500)</b>	Everyone	<b>Everyone:</b> Avoid all physical activity outdoors.

**Note:** If you don't have an air conditioner, staying inside with the windows closed may be dangerous in extremely hot weather. In these cases, seek alternative shelter.

**Air Quality Guide for Particle Pollution**

Harmful particle pollution is one of our nation's most common air pollutants. Use the chart below to help reduce your exposure and protect your health. For your local air quality forecast, visit [www.airnow.gov](http://www.airnow.gov).

Air Quality Index	Who Needs to be Concerned?	What Should I Do?
<b>Good (0-50)</b>		It's a great day to be active outside.
<b>Moderate (51-100)</b>	Some people who may be unusually sensitive to particle pollution.	<b>Unusually sensitive people:</b> Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easy. <b>Everyone else:</b> It's a good day to be active outside.
<b>Unhealthy for Sensitive Groups (101-150)</b>	Sensitive groups include people with heart or lung disease, older adults, children and teenagers.	<b>Sensitive groups:</b> Reduce prolonged or heavy exertion. It's OK to be active outside, but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath. <b>People with asthma:</b> should follow their asthma action plans and keep quick relief medicine handy. <b>If you have heart disease:</b> Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
<b>Unhealthy (151-200)</b>	Everyone	<b>Sensitive groups:</b> Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. <b>Everyone else:</b> Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.
<b>Very Unhealthy (201-300)</b>	Everyone	<b>Sensitive groups:</b> Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. <b>Everyone else:</b> Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.
<b>Hazardous (301-500)</b>	Everyone	<b>Everyone:</b> Avoid all physical activity outdoors. <b>Sensitive groups:</b> Remain indoors and keep activity levels low. Follow tips for keeping particle levels low indoors.

## APPENDIX 9

### ASTHMA-FRIENDLY CLEANING THAT WORKS FOR COVID-19

*This handout has been compiled CDC resources available from:*

*<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/asthma.html>.*

*The latest version can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).*

#### ASTHMA-FRIENDLY CLEANING METHODS THAT WORK FOR COVID-19!

*Remember: Any disinfectant can trigger an asthma attack.*

Here are a few key tips from CDC to reduce your chance of an asthma attack while disinfecting to prevent COVID-19.

##### If you have asthma:

- Ask an adult without asthma to clean and disinfect surfaces and objects for you.
- Stay in another room when cleaners or disinfectants are being used and right after their use.
- Use only cleaning products you must use. Some surfaces and objects that are seldom touched may need to be cleaned only with soap and water.
- If you have an asthma attack, move away from the trigger such as the disinfectant or the area that was disinfected. Follow your [Asthma Action Plan](#). Call 911 for medical emergencies.



##### The person cleaning and disinfecting should:

- Follow [recommendations](#) for cleaning and disinfecting to prevent COVID-19.
- Choose disinfectants that are less likely to cause an asthma attack, using [EPA's list of approved products](#) such as:
  - products with hydrogen peroxide (no stronger than 3%) or ethanol (ethyl alcohol)
  - products that do **NOT** contain peroxyacetic acid or peracetic acid.
- Limit use of chemicals that can trigger asthma attacks, such as bleach (sodium hypochlorite) or quaternary ammonium compounds (e.g. benzalkonium chloride), and do not use them in enclosed spaces.
- Make sure there is enough air flow (ventilation).
- Use and store products safely and correctly. More information available from: <https://www.epa.gov/sites/production/files/2020-04/documents/disinfectants-onepager.pdf>



**You can access all of this information (and more!) from:**  
<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/asthma.html>

## APPENDIX 10

## ASTHMA EDUCATION CLASSES AT OLOLCH

The latest version can be found in: <\\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts> or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).

## Asthma Class During COVID

Thank you for choosing Our Lady of the Lake Children's Hospital. We want to assure you that we are taking every precaution to protect you, your child and our team members during the COVID-19 pandemic.

### PRIOR TO ASTHMA CLASS

- Please schedule to attend an asthma class. The class is held every Wednesday at 12:30. Sign up on line or email [Tracy.marquette@fmoths.org](mailto:Tracy.marquette@fmoths.org)
- Classes are limited to 10 people

### DAY OF ASTHMA CLASS


Follow your doctor's instructions

- Enter through the front entrance of the Children's Hospital at your scheduled time.
- Upon arrival you and your child will be screened.
- You will be provided a mask if you do not have one. The mask must be worn at all times.
- Please limit attendance to 2 adults per child. Please do not bring siblings. We understand this can be challenging, but we are limiting attendance to ensure a safe environment.
- The class is 50 minutes long please consider age appropriateness. Children are not required to attend, but are welcomed.

### COMMON AREAS

- Waiting areas and the cafeteria are thoroughly disinfected regularly.
- Spaces have been configured to support social distance precautions and you should keep at least 6 feet between yourself and others.

We are implementing these new measures to keep you and your child safe and appreciate your patience and understanding. If you have any questions, please speak with your doctor's office or one of our team members.



OUR LADY OF THE LAKE  
CHILDREN'S HOSPITAL

## APPENDIX 11

## MOLD: WHAT YOU SHOULD KNOW ABOUT YOUR HEALTH AND PROPERTY

This handout is available at the following links in the languages listed. Downloaded copies of the latest version can be found in: <\\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts\or from www.ldh.la.gov\BREATHE>.

- English: [https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor\\_Air/Documents/MoldBro\\_English.pdf](https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor_Air/Documents/MoldBro_English.pdf)
- Spanish: [https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor\\_Air/Documents/MoldBro\\_Spnsh.pdf](https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor_Air/Documents/MoldBro_Spnsh.pdf)
- Creole: [https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor\\_Air/Documents/MoldBro\\_Creole.pdf](https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor_Air/Documents/MoldBro_Creole.pdf)
- Vietnamese: [https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor\\_Air/Documents/Mold\\_Vnmse.pdf](https://ldh.la.gov/assets/oph/Center-EH/envepi/Indoor_Air/Documents/Mold_Vnmse.pdf)

4. Use detergent in hot water and scrub the moldy area. Use a hard brush or cleaning pad on rough areas.

5. Rinse the whole area with hot water. A wet-dry vacuum can be used to pick up extra water.

6. Fully dry the area for two or three days. Raising the temperature and using dehumidifiers and fans will help speed drying.

7. Vacuum your home with a HEPA-filtered vacuum, if available.

8. Protect yourself by wearing long sleeves, pants, gloves and a NIOSH-approved N95 respirator.

**How do I hire professional help?**

If there has been a lot of water damage and/or mold growth that covers more than 10 square feet, you should consider hiring a mold assessor and/or mold cleanup company. You will need professional help if your HVAC system has mold growing inside of it, or if the water/damage was caused by sewage or other contaminated water. When hiring an expert or company to provide cleanup services you should consider:

- company experience in solving similar problems, which includes training and skills of the people doing the work
- quality of the work plan
- company reputation (check with the Better Business Bureau)
- company knowledge of local codes and regional climate conditions
- cost
- Ask for references

Make sure contractors have valid licenses, if required. Effective July 1, 2004 persons who provide mold cleanup services must have a Mold Remediation Contractor's License with the Louisiana State Licensing Board for Contractors. This is in accordance with Act 880 of the 2003 Legislative Session and is found in R.S. 37:2181-37:2192. This law also forbids contractors from performing both mold testing and cleanup on the same property. You may be able to find help by looking in the yellow pages of your telephone book under "Engineers," "Environmental Consultants," "Environmental Services," "Laboratories/Testing," or "Industrial Hygiene." Building managers may want to get referrals from other building managers when selecting an environmental consultant or company.

**What should I know about mold when buying a home or property in Louisiana?**

According to the Louisiana Real Estate License Law and the Rules and Regulations of the Louisiana Real Estate Commission, real estate agents must disclose any known "large" defects or future defects in the property. When buying a home or property, it is important to ask about any current or previous defects in the property. According to Act 308 of the 2003 Legislative Session (R.S. 9:3196-9:3199), a seller of residential property in Louisiana must provide a Property Disclosure Statement, which should include information on previous or current mold problems.

**Is mold damage covered by my homeowner's insurance policy?**

A homeowner's policy covers sudden and accidental damage caused by the events listed in the policy, like fire or damage from a storm or the sudden bursting of a water pipe. Damage caused by mold may not be listed in your policy. Your Louisiana homeowner's policy will not cover the cost of mold testing in the house, steps taken to keep mold from spreading or to get rid of mold. These costs will not be covered even if the company has paid for mold damage due to a covered claim (such as damage from a rainstorm). It is very important that homeowners review their current policy or talk to their insurance agent about mold damage.

**Where can I find additional resources?**

For more information on mold-related issues, including cleanup and moisture control, you may want to refer to the following agencies and organizations:

- American Industrial Hygiene Association (AIHA) - [www.aiha.org](http://www.aiha.org)
- Centers for Disease Control & Prevention (CDC) - [www.cdc.gov/mold/](http://www.cdc.gov/mold/)
- U.S. Environmental Protection Agency (EPA) - [www.epa.gov/mold/](http://www.epa.gov/mold/) or 1-800-887-6063
- Louisiana Department of Health & Hospitals Office of Public Health (DHHPH) - [www.cdc.la.gov](http://www.cdc.la.gov) or 1-888-293-7020
- Louisiana State Licensing Board for Contractors - [www.lslbc.state.la.us](http://www.lslbc.state.la.us) or 1-800-256-1392

**Information for property owners may be found by contacting the following agencies:**

- Louisiana Department of Insurance (LDI) - [www.la.state.la.us](http://www.la.state.la.us) or 1-800-259-5300
- Louisiana Real Estate Commission - [www.lrec.state.la.us](http://www.lrec.state.la.us) or 1-800-821-4529

**References**

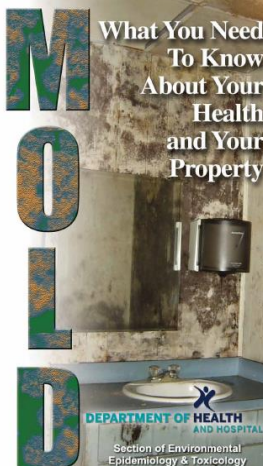
- CDC/National Center for Environmental Health Fact sheet: *Molds in the Environment*
- EPA, A Brief Guide to Mold, Moisture, and Your Home
- EPA, Mold Remediation in Schools and Commercial Buildings
- Louisiana House Bill 1328, Act 880, 2003 Regular Legislative Session (R.S. 37:2181-37:2192)
- Louisiana House Bill 92/Act 308, 2003 Regular Legislative Session (R.S. 9:3196-9:3199)

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LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS Public Information Series

## MOLD

### What You Need To Know About Your Health and Your Property



DEPARTMENT OF HEALTH AND HOSPITALS  
Section of Environmental Epidemiology & Toxicology

**MOLDS ARE TYPES OF FUNGI THAT ARE FOUND IN EVERY ENVIRONMENT**

This brochure is NOT meant to cover all aspects of mold, only to provide a brief overview.

Molds grow in damp places, so the wet Louisiana climate is perfect for mold growth. **Controlling moisture is the key to stopping indoor mold growth.** If you can see the mold, testing is not advised by federal-state health and environmental agencies. This is because testing does not give information for stopping or cleaning up mold growth. Property owners are responsible for the costs of mold testing and cleanup. There are no state agencies in Louisiana that test or clean up mold. People who provide cleanup services must follow the Louisiana Revised Statute 37:2181-37:2192. This law passed as Act 880 of the 2003 Legislative Session. This law will help protect the health and safety of Louisiana residents by making sure contractors know how to clean up mold.

For more information, call the Louisiana State Licensing Board for Contractors at (225) 765-2301 or call toll free 1-800-256-1392 or visit their website at [www.lslbc.state.la.us](http://www.lslbc.state.la.us).

**What is Mold?**

Molds are types of fungi. Mildew is another word for mold. We all breathe in small amounts of mold daily. Mold grows indoors when mold spores come in contact with wet areas. Therefore, mold grows in damp, moist areas of buildings. Some common molds are *Cladosporium*, *Penicillium*, *Aspergillus*, and *Mucor*.

**What are "Toxic Molds" or "Black Toxic Molds"?**

"Toxic molds" are those molds that produce compounds called mycotoxins. Mycotoxins are produced as a defense against other microorganisms. "Black toxic mold" can refer to a certain type of mold—*Stachybotrys chartarum* (also known as *Stachybotrys atra*). This type of mold usually grows on very wet materials, and grows as a result of long-term water problems (high humidity, water leaks, water damage, or flooding). Constant moisture is needed for this mold to grow. Black is a color, not a type of mold. Therefore, not all black molds are *Stachybotrys chartarum*. There is no clinical test to determine if you have been exposed to this type of mold.

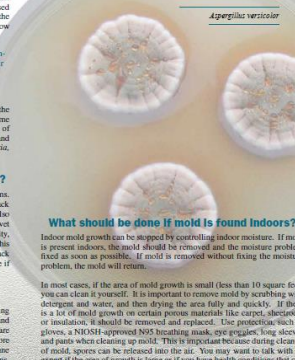
**Can mold cause health problems?**

Molds can produce allergens, irritants and in some cases toxins. Breathing or touching mold spores may cause an allergic response in some people and worsen breathing problems such as asthma. Common reactions to mold are cough, congestion, runny nose, burning eyes, headaches, sneezing and sore throat. Children, pregnant women, the elderly and people with weak immune systems may be more sensitive to mold. If you have any health concerns, talk to your doctor.

**What causes mold to grow indoors?**

Common causes of mold growth are roof and plumbing leaks, high humidity or cold spots in buildings, flooding and broken/clogged gutters and drains. Signs of mold growth include staining on surfaces, musty odor, dark spots on or around pipes, water stains and peeling or curling of paint. Floors or wallpaper. Mold is found in bathrooms, on windows, behind water heaters and in kitchens. Mold may be found on ceilings, walls, sheet rock, books, wood and clothing.

*Aspergillus versicolor*



**What should be done if mold is found indoors?**

Indoor mold growth can be stopped by controlling indoor moisture. If mold is present indoors, the mold should be removed and the moisture problem fixed as soon as possible. If mold is removed without fixing the moisture problem, the mold will return.

In most cases, if the area of mold growth is small (less than 10 square feet) you can clean it yourself. It is important to remove mold by scrubbing with detergent and water, and then drying the area fully and quickly. If there is a lot of mold growth on certain porous materials like carpet, sheetrock, or insulation, it should be removed and replaced. Use protection (such as gloves, a NIOSH-approved N95 breathing mask, eye goggles, long sleeves and pants) when cleaning up mold. This is true before and during cleanup of mold. Spores can be released into the air. You may want to talk with an expert if the area of growth is large or if you have health conditions that can be worsened by mold.

**Do I need to test or sample for mold?**

In most cases, if you can see mold growing you do not need to do any sampling/testing. It can be costly. Results cannot be used to decide if a building has safe levels of mold or mold spores. The steps to clean up and stop mold growth are the same for all molds. Sampling mold growth is more important than knowing the type of mold. If a professional is hired to remediate indoor mold, sampling/testing may be useful in determining whether the cleanup was successful. The best way to find mold growth is by using your eyes to look for it by using your nose to find the source of a musty odor. If there is a damp, earthy or musty smell, mold may be present. Other clues are signs of moisture or the worsening of allergies.

**How do I stop mold from growing indoors?**

Controlling moisture is crucial to stopping mold growth. Cleaning up mold when you see it is important, but it will return if you do not fix the water problem.

To prevent mold growth, homeowners and property owners should:

- Quickly fix water leaks and stop water from going into homes and buildings.
- Fully dry wet building materials, furnishings and carpets within 48 hours of getting wet, if possible.
- Replace water-damaged items as soon as possible.
- Make sure that heating/ventilation/air conditioning (HVAC) systems are always running, to keep the right amount of air flowing inside of the building.
- Keep indoor relative humidity below 60% (ideally, between 30% and 50%). Good airflow and dehumidifiers help to keep humidity low.
- Check roofs, ceilings, walls, floors and carpets for water leaks, mold growth, or musty odors.
- Do not let sprinklers hit buildings or homes.
- Fix broken roof gutters.
- Routinely replace air conditioner filters and clean drip pans.
- Make sure stoves/ovens, bathrooms and clothes dryers are vented to the outside of the home, if possible.

**What are the steps to clean up mold?**

1. Find and fix the moisture problem.
2. Shut off all heat or air conditioning to stop mold spores from spreading around the home or building. If possible, turn on a fan in a window to exhaust the air to the outdoors.
3. Remove, bag, and throw out materials that have heavy mold growth (i.e., ceiling tiles, leather, sheetrock, plaster, painting, wood products, paper, carpet, padding, etc.).

## APPENDIX 12

## ALLERGIC RHINITIS OPTIONAL EDUCATIONAL HANDOUT

The latest version can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).

Itchy, watery eyes? Runny or stuffy nose? Sneezing? Partner tired of your snoring?

It could be HAY FEVER! Also known as:

## ALLERGIC RHINITIS

If you suffer from hay fever, you are among 1 in 5 adults, 1 in 10 teenagers and an estimated 1 in 20 children. Symptoms are triggered by an "overactive" immune system to harmless triggers such as pollen, house dust mite, mold, or animal dander. To get a proper diagnosis, you will need to visit your physician who will consider your history, and physical and blood tests to check on specific allergen triggers.



Allergic Rhinitis comes in many forms.

- It may be *intermittent* (coming on occasionally and/or lasting less than a month in length) or *persistent* (bothering you most days of the week and/or lasting a month or longer).
- It may be *mild* – not causing any troublesome symptoms that disrupt your daily life – or it may be *moderate-to-severe*, where it impacts your daily life much more.

Regardless, allergic rhinitis may cause complications (such as with your asthma) and you should speak to a doctor about it.

*They will be able to suggest the best course of action for you to help your symptoms.*

### Home Remedies:

- Using an air purifier to cut down on the level of allergens in your home
- Avoiding exposure to smoke, chemicals, or strong odors that irritate your respiratory tract
- Ingesting Local honey may help with allergies (**adults only! NOT SAFE FOR BABIES**).
- Using a nasal rinse with boiled or distilled water (**do NOT use tap water!**)

### Over-the-Counter options:

- Nasal steroid sprays and oral antihistamines (e.g.: Claritin, Allegra, Zyrtec)

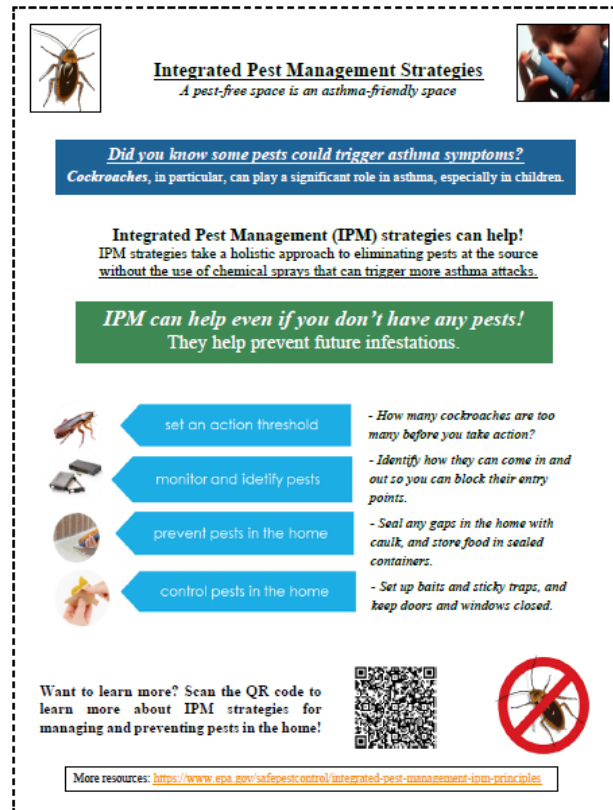
### Prescription Therapies: your doctor will be able to suggest what is appropriate for you

- Prescription nasal or oral medications: e.g.: Astelin, Montelukast
- Immunotherapy – these drugs modulate your immune system to tackle your symptoms

## APPENDIX 13

### INTEGRATED PEST MANAGEMENT STRATEGIES (OPTIONAL)

The latest version can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\EDU Handouts or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).







**Integrated Pest Management Strategies**  
A pest-free space is an asthma-friendly space

**Did you know some pests could trigger asthma symptoms?**  
Cockroaches, in particular, can play a significant role in asthma, especially in children.

**Integrated Pest Management (IPM) strategies can help!**  
IPM strategies take a holistic approach to eliminating pests at the source without the use of chemical sprays that can trigger more asthma attacks.

**IPM can help even if you don't have any pests!**  
They help prevent future infestations.

	set an action threshold	- How many cockroaches are too many before you take action?
	monitor and identify pests	- Identify how they can come in and out so you can block their entry points.
	prevent pests in the home	- Seal any gaps in the home with caulk, and store food in sealed containers.
	control pests in the home	- Set up baits and sticky traps, and keep doors and windows closed.

Want to learn more? Scan the QR code to learn more about IPM strategies for managing and preventing pests in the home!

More resources: <https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles>

## APPENDIX 14

### VIRTUAL HOME VISIT ASSESSMENT FORM

The latest version can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\Survey Questionnaire or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).

## APPENDIX 15

### PROGRAM EVALUATION

The survey can be found in: \\10.12.4.254\NASShare\OPH\SEET\3-File Sharing Folder\EPA EJ grant\Survey Questionnaire or from [www.ldh.la.gov/BREATHE](http://www.ldh.la.gov/BREATHE).