Report to the Maryland Medicaid Advisory Committee on Lead Poisoning Prevention Activities in Maryland

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What's Been Happening with Lead (and Asthma)?

- 2015-2016 initiative on lead testing – new Targeting Strategy, new regulations
- More national focus on lead
- Focus for Maryland Department of Health (Medicaid, Environmental Health Bureau), Maryland Department of the Environment, and the Department of Housing and Community Development

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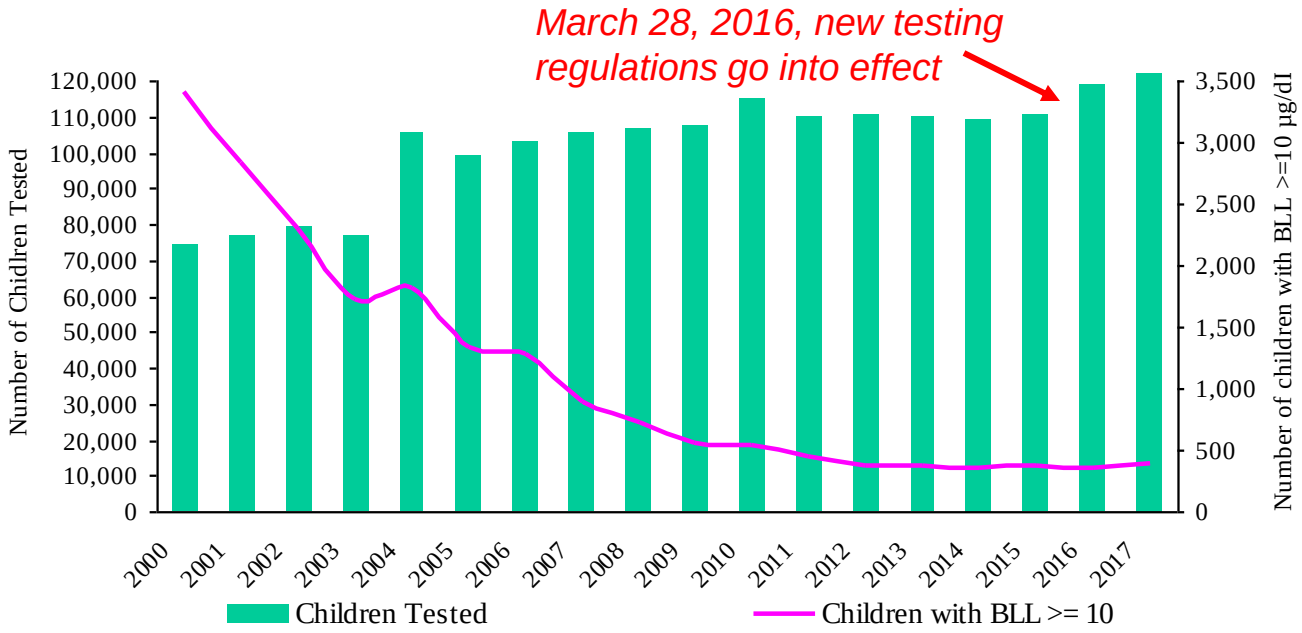
Lead Testing Initiative in Maryland

Number of Children 0-72 Months Tested for Lead and Number Reported to Have Blood Lead Level ≥10 µg/dL: 2000-2017



Source, MDE Childhood Blood Lead Surveillance for Calendar Year 2017, p. 6

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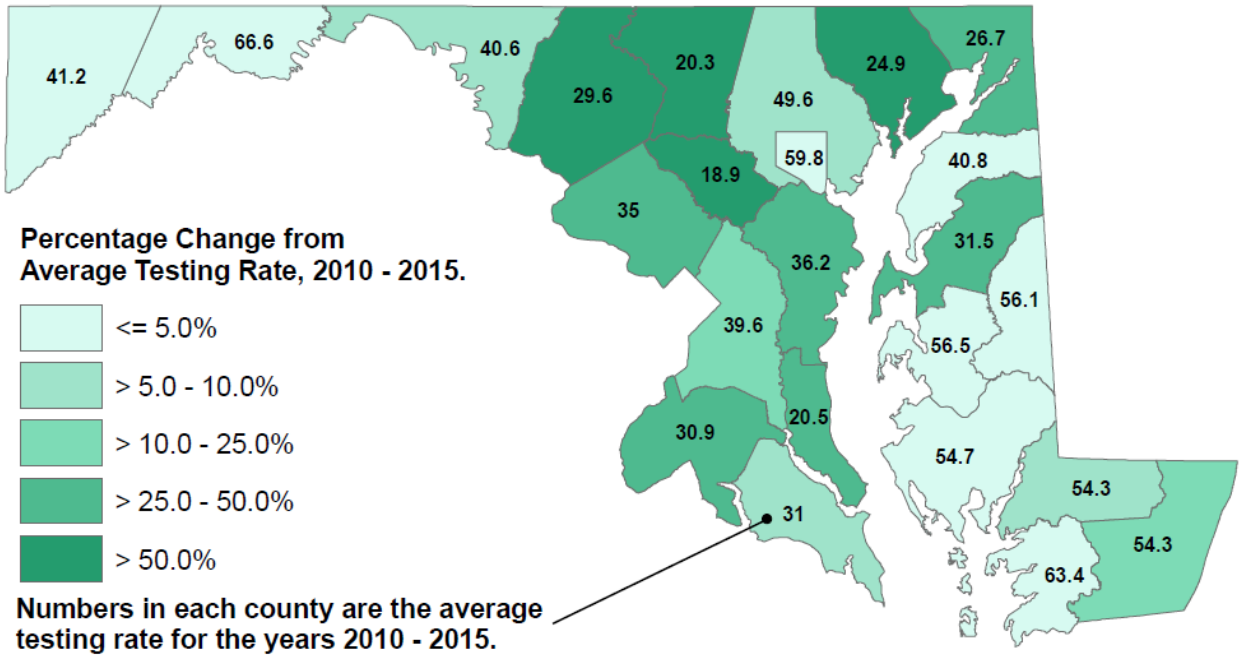
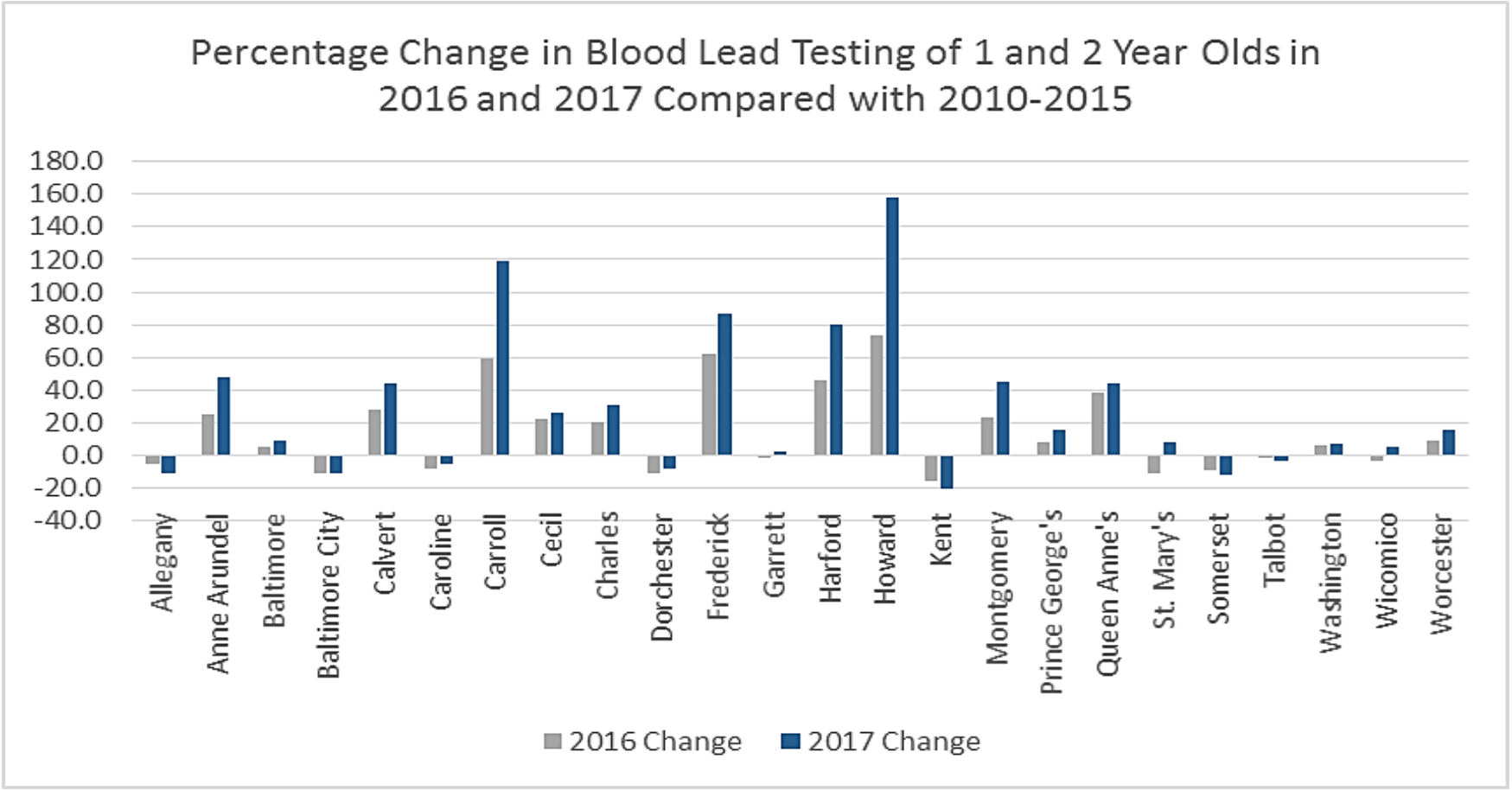
Percentage Increase in Children Tested at 12 and 24 months by County in Calendar Year 2017, compared with the Average Percentage of Children Tested between 2010 – 2015



Source, MDE Childhood Blood Lead Surveillance for Calendar Year 2017, p. 35



Source, MDE Childhood Blood Lead Surveillance for Calendar Year 2017, p. 36

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Bottom Line: New Regulations, Outreach Have Increased Blood Lead Testing

- 2010 to 2015 – average of 68,892 children tested annually (39.7% of cohort)
- 2016 – 81,125 children tested (44.5% of cohort)
- 2017 – 90,813 children tested (49.4% of cohort)
- Percentage of children with blood lead levels of 10 or more is stable:

Blood Lead Level	2005	2015	2016	2017
<5 μg/dL	91.2%	98.0%	98.2%	98.4%
5 - 9 μg/dL	7.5%	1.6%	1.5%	1.3%
≥ 10 μg/dL	1.3%	0.4%	0.3%	0.3%

Point of Care Testing, ImmuNet

- New regulations on point of care testing (COMAR 10.10.03.02), effective 4/13/2015
- Makes it easier to do point of care testing for CLIA-waived tests
- Issues of training, reimbursement, proficiency testing, and reporting with POC tests
- All labs doing POC testing are considered labs and required to submit results to MDE Childhood Lead Registry
- Lead test results now in ImmuNet: Effective May, 2018, all tests reported to MDE Childhood Lead Registry are loaded (monthly) into ImmuNet and accessible to ImmuNet users (does not include historical data at this point)

New State Medicaid Initiative

Overview: Maryland Children's Health Insurance Program (CHIP) Health Services Initiative (HSI) State Plan Amendment (SPA)

- Maryland Medicaid, in collaboration with Environmental Health Bureau (EHB) and the Department of Housing and Community Development (DHCD), worked to secure CHIP administrative funds from the Centers for Medicare and Medicaid Services (CMS) to support two new initiatives:
  - Healthy Homes for Healthy Kids
  - Childhood Lead Poisoning Prevention and Environmental Case Management
- In January 2017, Medicaid submitted the CHIP Health Services Initiative State Plan Amendment (CHIP HSI SPA) to CMS to leverage CHIP funds.
- The CHIP HSI SPA was approved in June 2017.

Program 1: Healthy Homes for Healthy Kids

- Expansion of lead hazard identification and abatement programs for low-income children through programs delivered by the Maryland Department of Housing and Community Development (DHCD)

Program 1: Eligible Children

Children (0-18 yrs) who are:

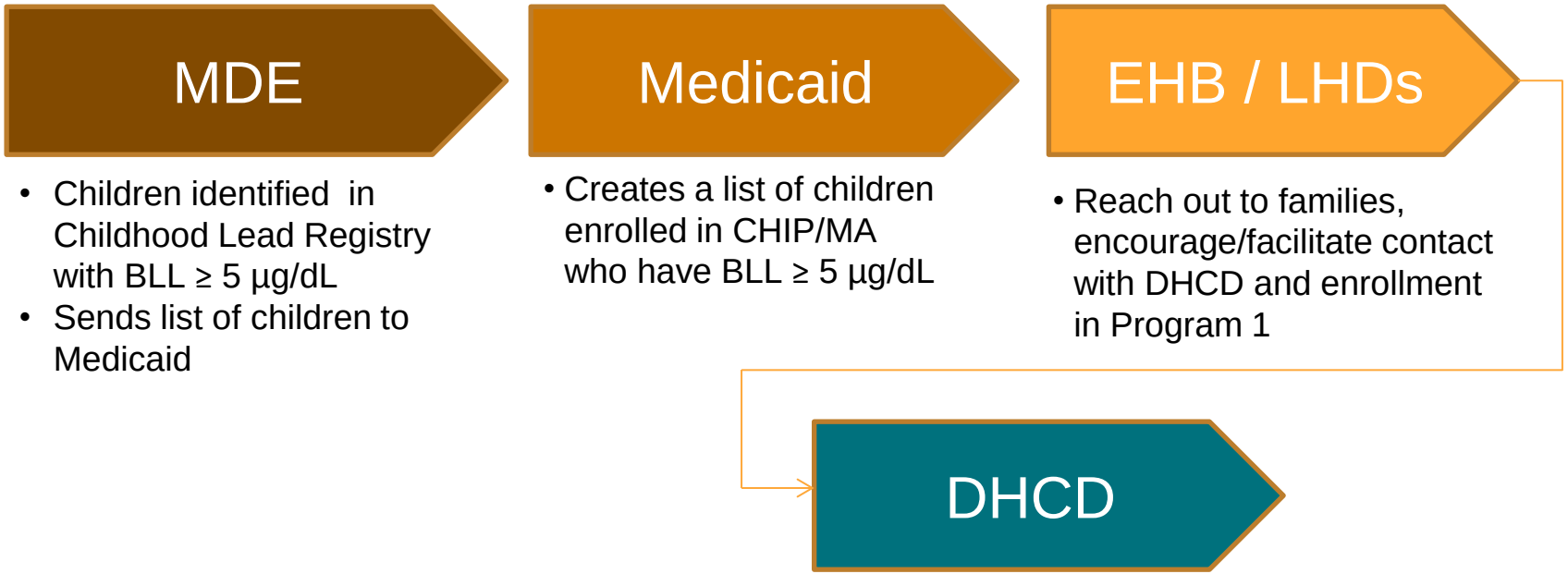
(1) Enrolled in or eligible for Medicaid or CHIP

AND

(2) Have a BLL of ≥ 5µg/dL

(3) Living in, or spending 10 or more hours a week in, an eligible property

Program 1: Enrollment



- Children identified in Childhood Lead Registry with BLL ≥ 5 µg/dL
- Sends list of children to Medicaid

- Creates a list of children enrolled in CHIP/MA who have BLL ≥ 5 µg/dL

- Reach out to families, encourage/facilitate contact with DHCD and enrollment in Program 1

- Enroll children/ family in Program 1, perform abatement on property

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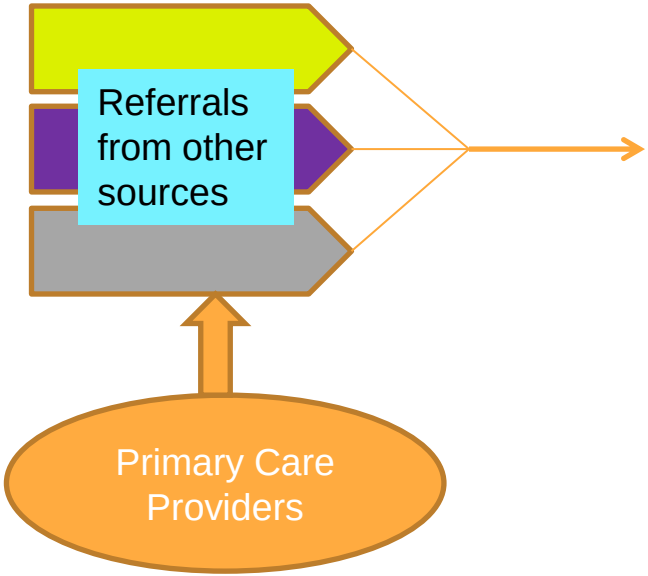
Program 1: Enrollment - Referrals from Other Agencies



EHB / LHDs

- Reach out to families, encourage/facilitate contact with DHCD and enrollment in Program 1

DHCD

- Enroll children/ family in Program 1, perform abatement on property

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Program 1: Eligible Properties

Residential properties where an eligible child resides at least 10 hours a week and are:

- Owner-occupied;
- Occupied by a family member of the owner;
- Occupied by a tenant; or
- Properties in the process of becoming licensed for, or currently maintaining a license for the provision of in-home childcare services.
- HSI funds will not be used for commercial, non-residential properties.

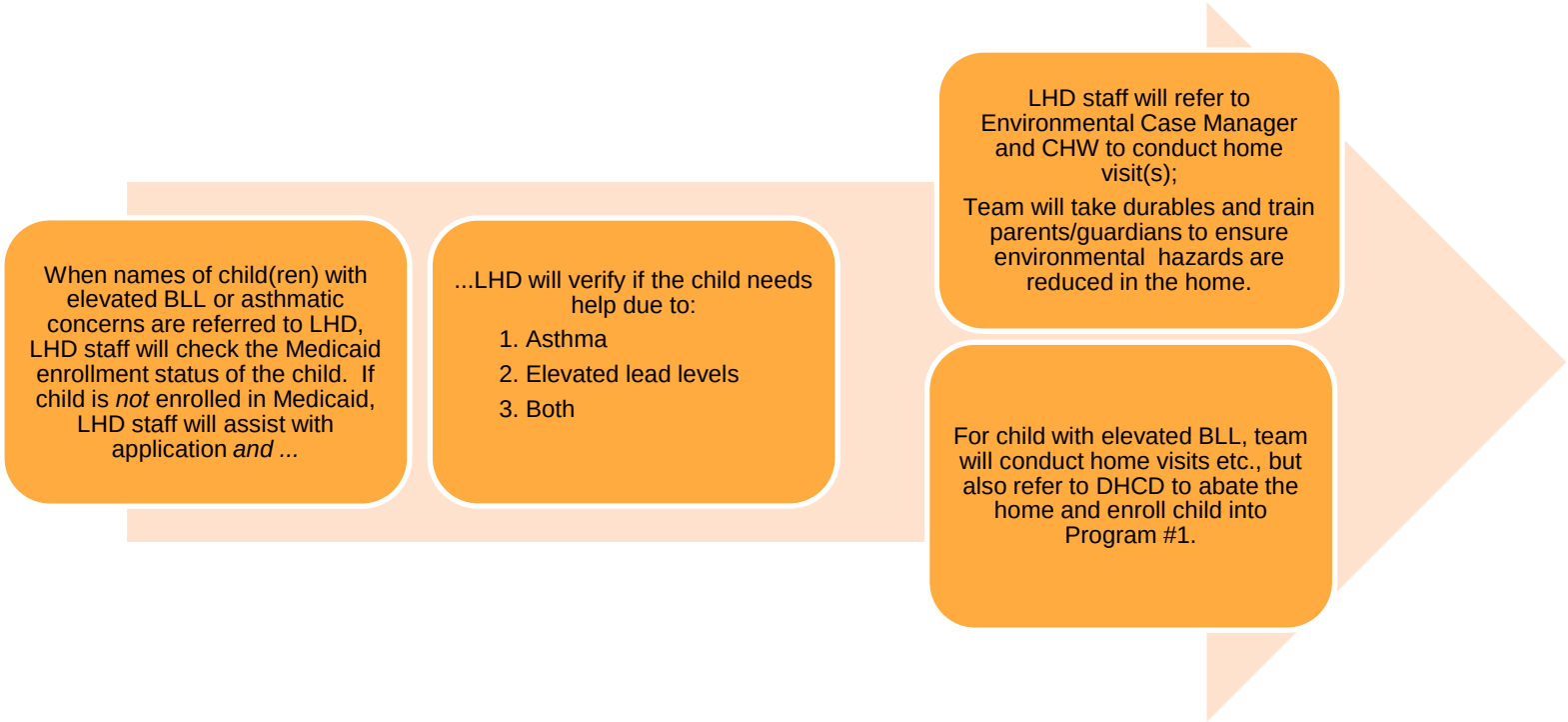
Program 1: Services

- When lead is detected in the residential property occupied by the eligible child, DHCD will provide lead abatement services to eligible properties reducing the overall risk of lead poisoning among low-income children in Maryland.
- If the lead abatement work requires families to vacate the premises following HUD guidelines, DHCD will provide relocation support for families.

Program 2: Childhood Lead Poisoning Prevention and Environmental Case Management

- Expansion of county level programs to provide environmental case management and in-home education programs with the aim of reducing the impact of lead poisoning and asthma on low-income children.
- The program is conducted by environmental case managers and community health workers seated in Local Health Departments (LHDs) and conducted in nine counties.

Program 2: Overview



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Program 2: Eligibility

Children (0-18 years) must be:

(1) Enrolled in Medicaid or CHIP *or* eligible for Medicaid / CHIP;

(2) Reside in one of nine specific counties in Maryland;*

(3) Have a diagnosis of moderate to severe asthma⁂ **AND** / **OR** a BLL of ≥ 5µg/dL;

*Participating counties include: Baltimore City, Baltimore County, Charles County, Dorchester County, Frederick County, Harford County, Prince George's County, St. Mary's County, and Wicomico County.

⁂ Utilizes standard clinical definitions of moderate to severe asthma by age group.

Program 2: Eligibility

Children (0-18 years) must be:

(1) Enrolled in Medicaid or CHIP *or* eligible for Medicaid / CHIP but not yet enrolled;

(2) Reside in one of nine specific counties in Maryland*;

(3) Have a diagnosis of moderate to severe asthma⁂ **AND** / **OR** a BLL of ≥ 5µg/dL;

⁂ Utilizes standard clinical definitions of moderate to severe asthma by age group.

INITIAL VISIT: CLASSIFYING ASTHMA SEVERITY AND INITIATING THERAPY

(in patients who are not currently taking long-term control medications)

Level of severity (Columns 2–5) is determined by events listed in Column 1 for both impairment (frequency and intensity of symptoms and functional limitations) and risk (of exacerbations). Assess impairment by patient's or caregiver's recall of events during the previous 2–4 weeks; assess risk over the last year. Recommendations for initiating therapy based on level of severity are presented in the last row.

Components of Severity		Intermittent			Persistent								
					Mild			Moderate			Severe		
		Ages 0–4 years	Ages 5–11 years	Ages ≥12 years	Ages 0–4 years	Ages 5–11 years	Ages ≥12 years	Ages 0–4 years	Ages 5–11 years	Ages ≥12 years	Ages 0–4 years	Ages 5–11 years	Ages ≥12 years
Impairment	Symptoms	≤2 days/week			>2 days/week but not daily			Daily			Throughout the day		
	Nighttime awakenings	0	≤2x/month		1–2x/month	3–4x/month		3–4x/month	>1x/week but not nightly		>1x/week	Often 7x/week	
	SABA* use for symptom control (not to prevent EIB*)	≤2 days/week			>2 days/week but not daily	>2 days/week but not daily and not more than once on any day		Daily			Several times per day		
	Interference with normal activity	None			Minor limitation			Some limitation			Extremely limited		
	Lung function												
	➡ FEV_1* (% predicted)	Not applicable	Normal FEV_1 between exacerbations >80%	Normal FEV_1 between exacerbations >80%	Not applicable	>80%	>80%	Not applicable	60–80%	60–80%	Not applicable	<60%	<60%
	➡ FEV_1/FVC*		>85%	Normal†		>80%	Normal†		75–80%	Reduced 5%†		<75%	Reduced >5%†
Risk	Asthma exacerbations requiring oral systemic corticosteroids‡	0–1/year			≥2 exacerb. in 6 months, or wheezing ≥4x per year lasting >1 day AND risk factors for persistent asthma	≥2/year		Generally, more frequent and intense events indicate greater severity.					
		Consider severity and interval since last asthma exacerbation. Frequency and severity may fluctuate over time for patients in any severity category. Relative annual risk of exacerbations may be related to FEV_1.*											
Recommended Step for Initiating Therapy *(See "Stepwise Approach for Managing Asthma Long Term," page 7)*		Step 1			Step 2			Step 3	Step 3 medium-dose ICS* option	Step 3	Step 3	Step 3 medium-dose ICS* option or Step 4	Step 4 or 5
								Consider short course of oral systemic corticosteroids.					
The stepwise approach is meant to help, not replace, the clinical decisionmaking needed to meet individual patient needs.		In 2–6 weeks, depending on severity, assess level of asthma control achieved and adjust therapy as needed. For children 0–4 years old, if no clear benefit is observed in 4 weeks, consider adjusting therapy or alternate diagnoses.											

* **Abbreviations:** EIB, exercise-induced bronchospam; FEV_1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICS, inhaled corticosteroid; SABA, short-acting $beta_2$-agonist.

† Normal FEV_1/FVC by age: 8–19 years, 85%; 20–39 years, 80%; 40–59 years, 75%; 60–80 years, 70%.

‡ Data are insufficient to link frequencies of exacerbations with different levels of asthma severity. Generally, more frequent and intense exacerbations (e.g., requiring urgent care, hospital or intensive care admission, and/or oral corticosteroids) indicate greater underlying disease severity. For treatment purposes, patients with ≥2 exacerbations may be considered to have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.

Program #2: Services

- Funding for LHDs to hire and train environmental case managers and CHWs to provide environmental case management, and educational support to the parents and guardians of low-income children with asthma and/or lead poisoning.
- Home visiting program (3-6 visits)

Home Visits and Case Management

- Initial environmental assessments conducted by CHWs, based on the assessments currently employed by BCHD CAP staff and will
  - Focus on triggers for asthma and risk for lead poisoning
  - Aligned with “healthy homes assessments”
  - Not considered an “in-home assessment” eligible for Medicaid reimbursement

Asthma Home Visits

Home Visit 1 Personnel	
• Community Health Worker	Hours
○ Field work to complete HV1: In-home interview, environmental assessment, education	3
○ Office work to complete documentation, encounter form, care coordination	2
○ Transportation time for visit (round trip)	2.0
Total time	6.5 hours
Home Visit 1 Supplies	
• Mattress and pillow encasements	
• Spacer	
• Educational binder	
Home Visit 2 Personnel	
• Community Health Worker	Hours
○ Field work to complete HV2: In-home interview, environmental assessment, education	1.5
○ Office work to complete documentation, encounter form, care coordination	1.5
○ Transportation time for visit (round trip)	2.0
Total time	4.5 hours
Home Visit 2 Supplies	
• Green Cleaning Kit (bucket, mop, spray bottle, baking soda, vinegar, GreenWorks)	
• Integrated Pest Management supplies	
Home Visit 3 Personnel	
• Community Health Worker	Hours
○ Field work to complete HV3: In-home interview, environmental assessment, education	1
○ Office work to complete documentation, encounter form, care coordination	1.5
○ Transportation time for visit (round trip)	2.0
Total time	4 hours
Home Visit 3 Supplies	
• Doormat	
• HEPA vacuum (10% of clients)	

Required Durables for Home Visits

Asthma Durables	Lead Durables
HEPA Vacuum	HEPA Vacuum
Bucket	Bucket
Mop	Mop
Sponges	Sponges
Mouse traps	Micro-fiber cleaning cloths
Cockroach traps / baits	Soap
Dust mite covers for mattress	
Medication storage containers	
Spacers (for inhalers)	
Caulk	
Copper Mesh	
Sticky Traps	
Soap	

Program #2: Referral Sources for Children with Lead Exposures

- Primary care and specialty care providers
- State and county social services agencies
- MDE's Childhood Lead Registry
- Local housing agencies
- Public health agencies (based on either direct inquiries from the public, or from health care providers following up on BLLs ≥5µg/dL)
- MDE, based on public inquiries, regulatory referrals from their enforcement unit, or notices of defect from renters
- Requests from homeowners, rental property owners, or tenants
- School Nurse

Program #2: Referral Sources for Children with Asthma

- Primary care providers
- Specialty care providers
- Managed care and inpatient care coordinators
- School-based health personnel, social services personnel
- LHDs
- Emergency departments
- Emergency services personnel
- Parents/guardians
- Social service agencies

A Community Centered Medical Home

Primary Care Provider

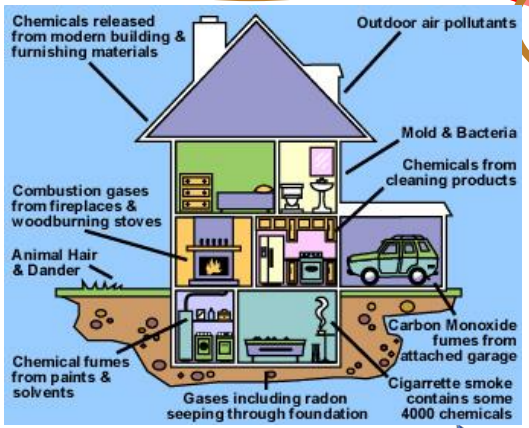
Managed Care Entities

Pharmacy

Local Health Department

School Health/ Childcare

State Health Department



Families

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Resources for Primary Care Physicians

- Local health departments
- MDH – toll-free help line – 1-866-703-3266
- https://phpa.health.maryland.gov/OEHFP/EH/Pages/CHIPEnvCaseMgmt.aspx
- Email: mdh.envhealth@maryland.gov

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Prevention and Health Promotion Administration

https://phpa.health.maryland.gov

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