

November 2020 Clinical Update: Asthma in Home and in School



SHIELD

School Health Institute for Education and Leadership Development



Session 4 of 4

November 19, 2020

ASTHMA MEDICAL MANAGEMENT: PART 2

Session 4 Objectives

- Explain how an indoor air quality (IAQ) assessment can benefit their asthmatic students
- Apply the current best practices and materials to support anti-vaping efforts

Welcome and Introductions

Karen Robitaille, MBA, MSN, RN, NCSN

Director, School Health Unit

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Deputy Director, Division of Health Protection and Promotion

Shazie Senen, MPH

Program Coordinator, Asthma Prevention and Control Program

Session 4 Introductions:

Reducing Indoor Air Triggers

Eugene Barros

Boston Public Health Commission

Vaping and Secondhand Smoke

Caroline Cranos, MPH, NCTTP

Melody Kingsley, MPH

U Mass Medical School

School Nurse Spotlight

Nancy Jenks, MSN, RN, NCSN, AE-C

Melissa Sweeney, M.Ed., BSN BA

Asthma Environmental Management

Sponsored by

The Massachusetts Department of Public Health
Comprehensive School Health Services (CSHS) & BU
SHIELD

November 19, 2020

Presented by:

Eugene Barros
Boston Public Health Commission



Asthma & The Home Environment

- In USA people spend 90% of their time indoors and 65% at home.
- Children with asthma are at greater risk for adverse health effects from poor housing.
- Exposure to allergens has strong association with asthma severity.
- RWJ Research shows that 40% of asthma episodes are caused by housing-based triggers.
- HUD estimates that about 24 million housing units have elevated levels of 4 or more allergens associated with symptoms of allergic asthma among residents

Common In-Home Asthma Triggers

ALLERGENS

- Cats, dogs, and birds
- Cockroaches
- Mice
- Cigarette and other smoke
- Dust mites
- Molds



IRRITANTS

- Cigarette and other smoke
- Cold air
- Nitrogen Dioxide
- Strong odors and fumes
 - From chemicals, ventilation



Dust Mites

- Require humidity and warmth
- Feed off dead skin
- Thrive in fabric: bedding, pillows, mattresses, stuffed animals, carpets, drapery



Reduce & Eliminate Dust Mites

- Encase pillows, mattress and box spring with allergy blocking covers.
- Remove/limit carpets, upholstered furniture, drapes, stuffed toys, particularly from child's bedroom.
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- Wash bedding weekly in hot water.
- Vacuum and damp mop child's bedroom frequently.
- Reduce indoor humidity.

Environmental Tobacco Smoke

- Don't smoke around children.
- Do not allow smoking in home or car.
 - Put up no-smoking signs/decals
 - Smoke outside
 - Remove ashtrays
- Quit, there's help.
- Need to know what cessation support is available for families.
- Smoke Free Housing policies



Animal Allergens

- No such thing as a non-allergenic cat or dog.
- Best not to have a pet with fur & features.
- Keep animals out of bedroom and off furniture
- Wash hands and clothes immediately after contact with pets.



Pest Prevention & Control

- **Block Access and Prevent Harborage**
 - Block pest entries, passages
 - Give them no place to hide
- **Cut Off Food & Water**
 - Proper food storage, disposal (including pet food)
 - Don't leave dirty dishes in the sink overnight
 - Quickly clean up food crumbs and spills from floors
- **Reduce Population**
 - Use traps or bait to remove pests
 - Apply appropriate pesticides only when necessary
- **Structural Maintenance**
 - Repair plumbing leaks, drains and sink traps



Volatile Organic Chemicals

- Cleaning Chemicals & Air Fresheners.
- Environmental Tobacco Smoke.
- Cosmetic products
- New
 - Paints, building materials
 - Carpets and floors
 - Pressed wood furniture



Asthma and the Home: Molds

- Leaking plumbing and roofs.
- Water damaged areas, carpet/rugs.
- Poor ventilation in bathrooms and kitchens.
- Basements without proper drainage or moisture control.
- Inadequate interior, attic and crawlspace, insulation
- Domestic activities
- Humidifiers



Moisture & Mold Control

- Leaking plumbing and roofs.
- Avoid living in basements and rooms without windows, or ventilation.
- Vent appliances outdoors.
- Do not install carpet directly on concrete floors in rooms that are likely to have moisture.
- Insulate living spaces and windows.
- Maintain/repair heating & plumbing leaks, roof, gutters, downspouts, siding and flashing.
- Proper grading and drainage prevent water problems

Things that need to be ventilated

- Bathrooms
- Clothes dryers
- Kitchen ranges
- Boilers, furnaces, hot water heaters, gas space heaters
- Fireplaces, wood burning stoves



Community Resources & Partnerships

- **Know the housing enforcement agencies.**
 - Board of health, local inspectional services, MA Fair Housing Commission.
- **Asthma home visiting programs.**
 - Local hospitals, community health centers, VNA, and other health service providers.
- **Cessation resources and other social service providers.**
- **Legal.**
- **MA 211/HelpSteps-one stop shop for social services resources**



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Thank you!

Questions or Comments?

Second and Thirdhand Smoke: Inequities in Exposure and Disease Burden

Caroline Cranos, MPH, NCTTP

Melody Kingsley, MPH

Lindsay Kephart, MPH

*Massachusetts Tobacco Cessation and Prevention
Program, Department of Public Health*

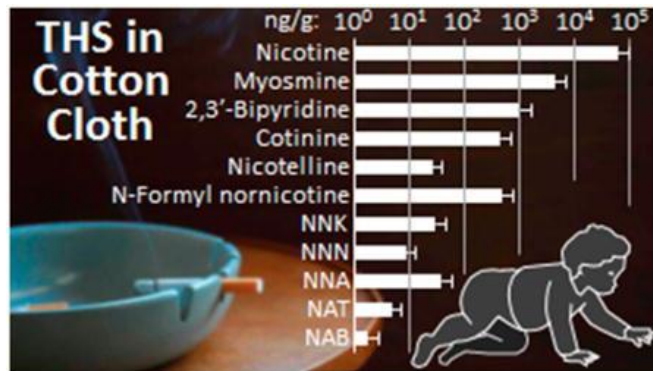
Secondhand Smoke (SHS)

Secondhand smoke is a mixture of the smoke given off by the burning of tobacco products (such as cigarettes, cigars or pipes) and the smoke exhaled by smokers. Secondhand smoke is also called environmental tobacco smoke (ETS).

**It is a Class A carcinogen, like *asbestos*,
radon, and *benzene***

Thirdhand Smoke (THS)

- THS refers to tobacco residue and stale or aged secondhand smoke. This persists in air lands on surfaces after smoking stops.
- Gases and smoke can become embedded in materials and objects like carpet, walls, furniture, clothing, and toys.
- This residue can last for years.
- To learn more, visit: <https://thirdhandsmoke.org/>

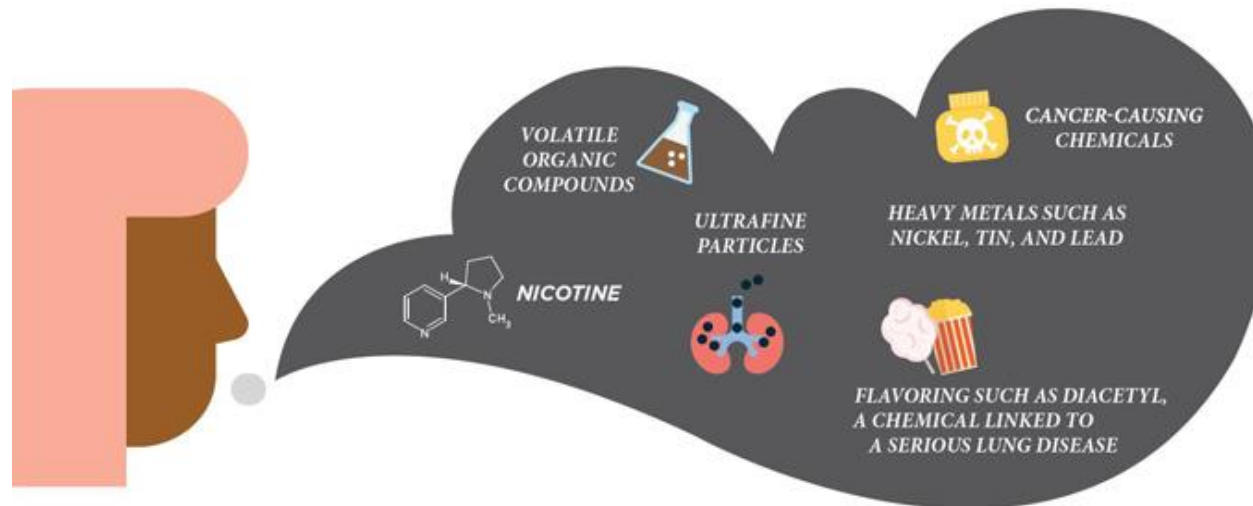


Jacob P 3rd, Benowitz NL, Destailats H, et al. 2017

- Vaping does not actually release water “vapor” – it contains many chemicals that may be toxic

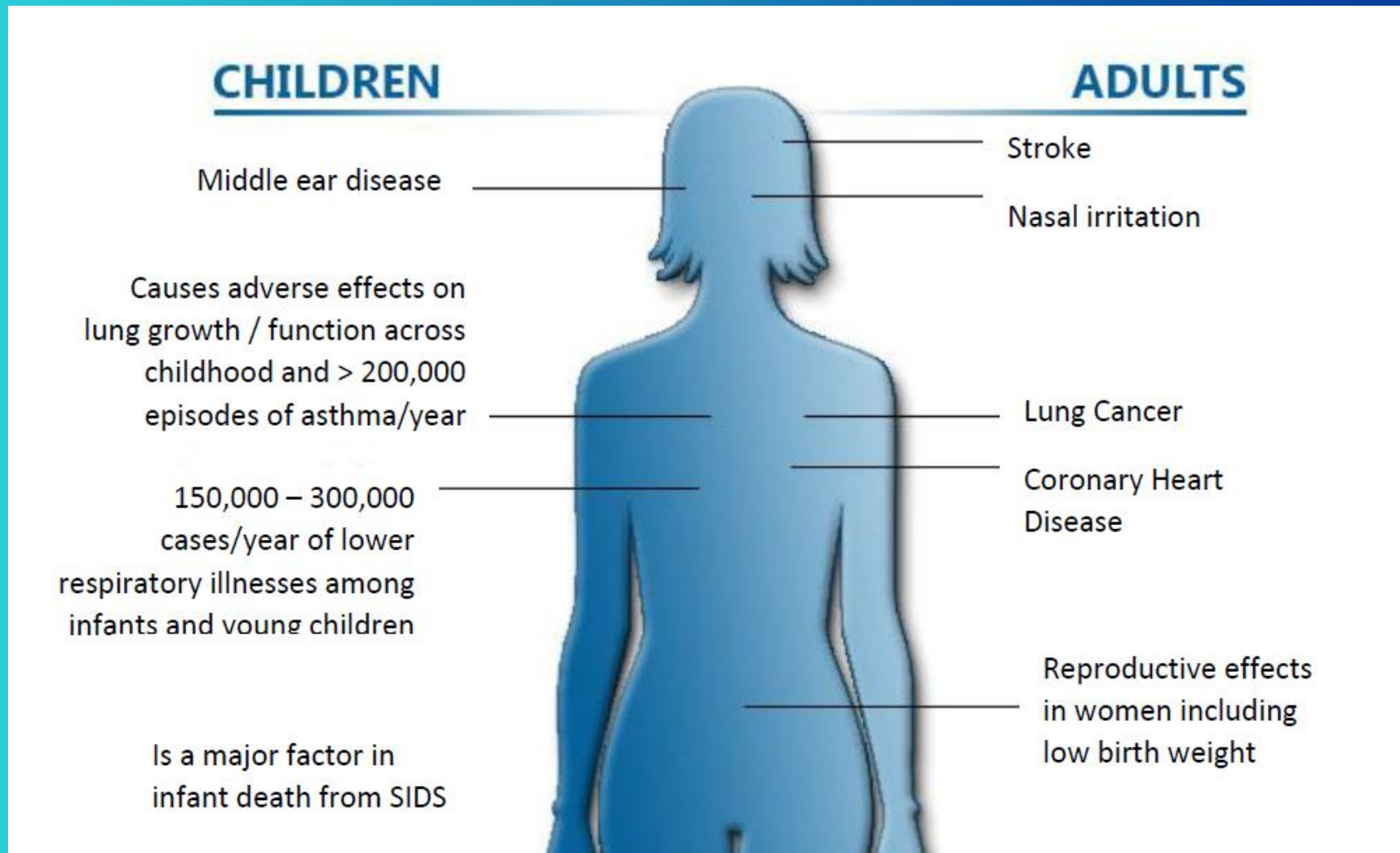
Aerosols from Vaping Contain Toxins

- We are still learning about the effects of vape-produced aerosols



https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html

SHS Effects the Health of Both Children and Adults



https://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/health_effects/index.htm; Secondhand Smoke (SHS) Facts (CDC), Surgeon General's Report; 2006, 2014 Surgeon General's Report (CDC)

Racial Inequities in SHS Exposure and Disease Burden Exist

- The Asthma and Allergy Foundation of America (AAFA) notes that “the burden of asthma in the US falls disproportionately on Black, Hispanic, and American Indian/Alaska Native people.”
- **Structural drivers** such as systemic racism, segregation, and discriminatory policies play a role in these inequities in health outcomes and who is exposed to secondhand smoke.

Housing Type Contributes to SHS Exposure

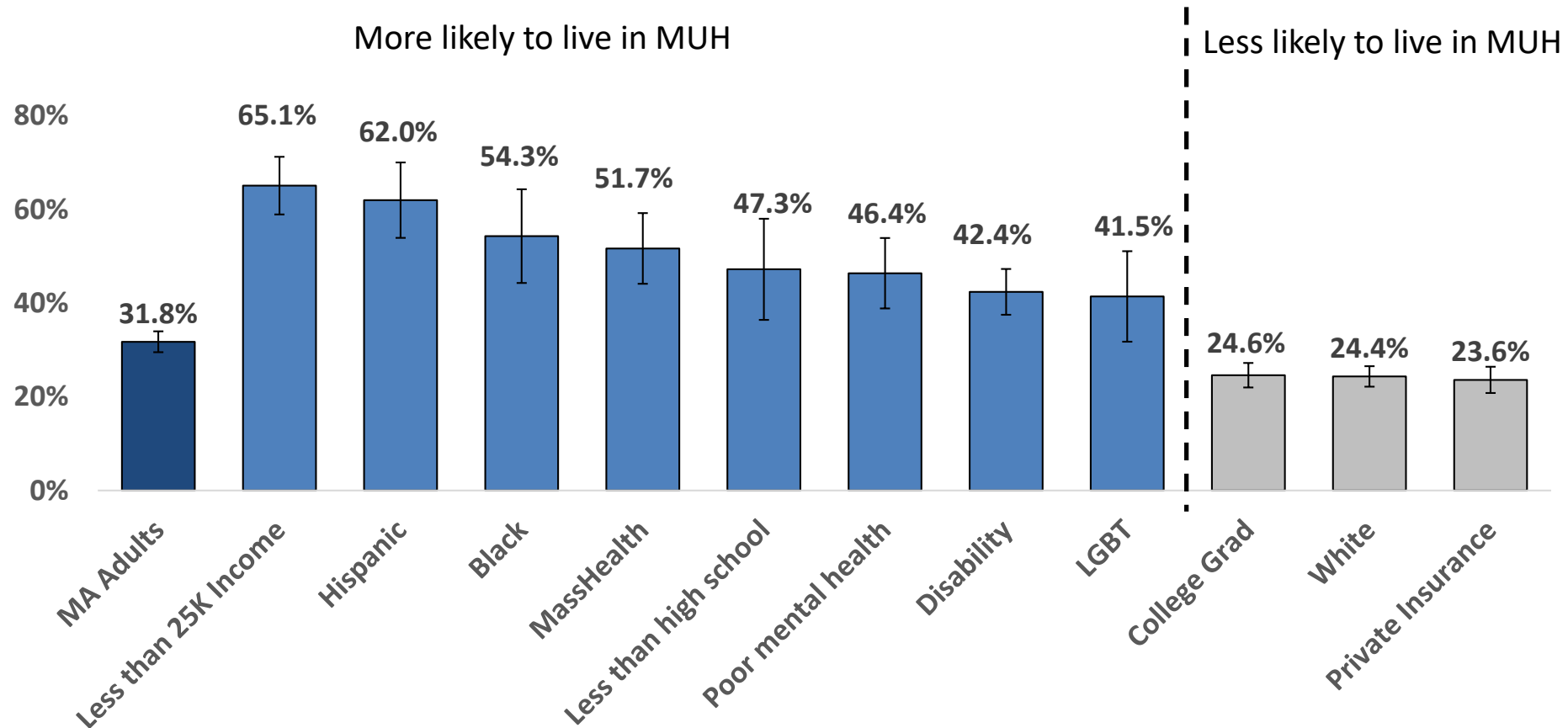
In Massachusetts, those who are Black, Hispanic, low SES, have MassHealth insurance, report poor mental health, or have a disability are **significantly more likely to report living in multi-unit housing** (BRFSS, 2018)

Many of these same populations who live in multi-unit housing also report **more exposure to secondhand smoke at home**

Historically, housing patterns in Massachusetts are linked to practices such as segregation and racial redlining. Communities of color and low-income populations are more likely to rent instead of own. Renters may lack control over their housing environment, including differential quality and exposure to hazards, such as secondhand smoke.

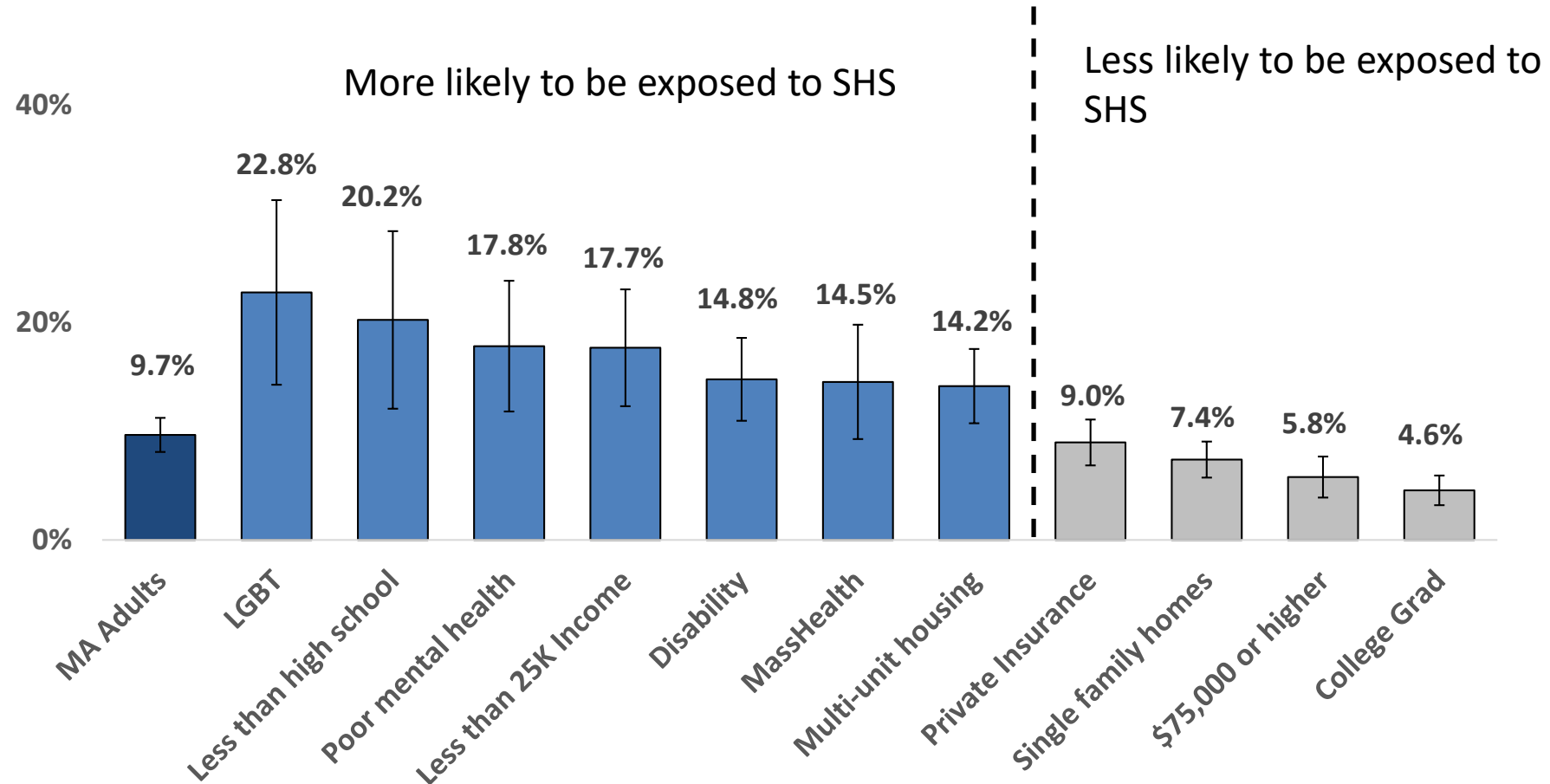
Adults Living in Multi-Unit Housing, 2018

- Almost **1 out of 3** BRFSS respondents reported living in multi-unit housing
- **53.3%** of these residents do not live in buildings with a smoke-free policy in place



Examining housing type is important as housing in Massachusetts is not achievable to everyone in an equitable way.

In addition to housing type, exposure to secondhand smoke at home is associated with income and other factors



Exposure to secondhand smoke at home is significantly greater among those who identify as LGBT, those reporting poor mental health and those with low socioeconomic status compared to Massachusetts adults overall (2018 BRFSS)

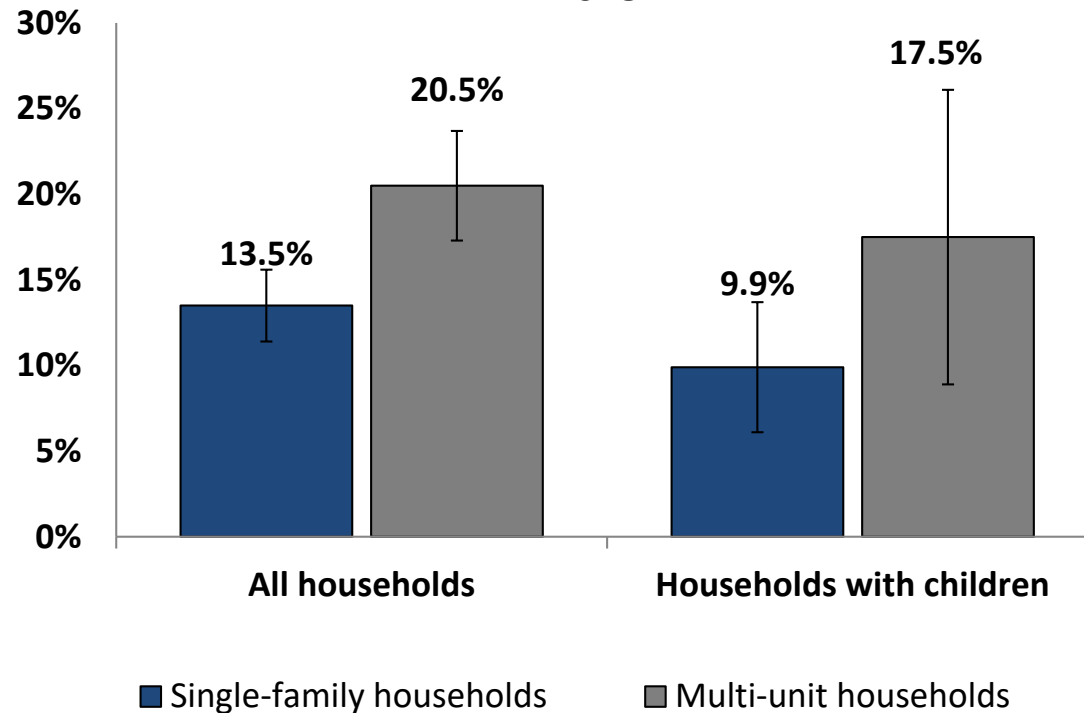
Most MA Homes with Children – Smoking Not Permitted

In 2018, **84.0%** of Massachusetts BRFSS respondents and **88.2%** of respondents with children did not permit any kind of smoking inside their homes.

While a large majority of respondents protect their homes from secondhand smoke, there are still those who may permit smoking in some places inside their homes.

Home smoking rules vary by housing type as those in **multi-unit homes report higher rates of permitting smoking inside** compared to single family homes.

% of MA Households that Permit Smoking Inside, 2018



Total home bans of smoking may delay the initiation of youth smoking and reduce exposure to secondhand smoke

Actions to Reduce Inequities in SHS Exposure

While changing social norms may influence an individual's behavior of smoking inside the home, the vast majority of those exposed at home lack control over their living conditions and exposure to secondhand smoke at home.

Future policies should look to mitigate the effects of racial residential segregation on determining where people live and the quality of their homes.

Free Resources on Secondhand Smoke

For these resources, go to the Massachusetts Health Promotion Clearinghouse and search for “secondhand smoke”

<https://massclearinghouse.ehs.state.ma.us>



...Before you Light up, Look Down” poster, smoke-free planning guide, and coloring book



This free training from the Institute for Health Recovery covers topics such as SHS and THS:

<http://www.healthrecovery.org/trainings/sff>

Helping Youth to Stop Vaping: Resources and Support

Caroline Cranos, MPH, NCTTP



MY LIFE  MY QUIT™





MA: How Many Youth are Vaping?*

- In 2019 32% of MA high school students vaped in the past 30 days (vs. 19% in 2017) – higher than the national average.
- Over 51% had ever tried vaping

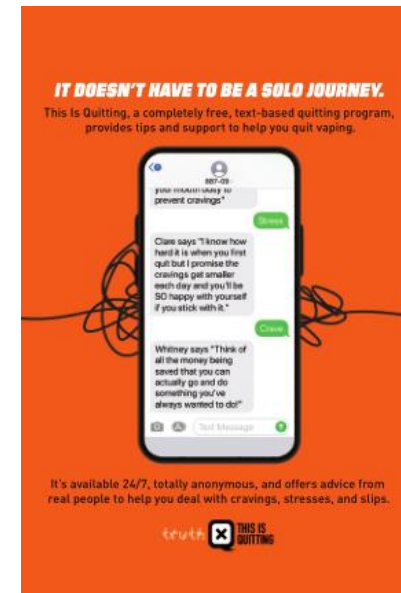
Are Youth Interested in Quitting? Yes!

- Data from the 2019 National Youth Tobacco Survey indicate that over half of middle and high school students who vape have seriously thought about quitting
- Most common reasons given for wanting to quit include health concerns, money, and physical and mental performance.

*Note: The 2019 MA Youth Health Survey (YHS) data are provisional and subject to revision until they have been thoroughly reviewed and received final approval.

“This is Quitting” Customized for Massachusetts Youth and Young Adults

- “This is Quitting,” a program of the Truth Initiative, is a free text program for youth/young adults (13 to 24) who want to quit vaping
- Users receive at least 4 weeks of messages focused on building skills and confidence before and after their quit date



Text Message Content



Theory-Based & Grounded in Best Practices

- Build self-efficacy
- Establish/reinforce social norms & social support
- Support observational learning
- Grow behavioral capability

TIQ: Have your friends supported your quitting? Reply YES or NO.

No



Tailoring

- Age
- Product use (e.g., JUUL)
- Quit date

TIQ: Practice - like actually say out loud in front of a mirror at home or in your car - how you'll turn down a JUUL if they offer it to you.



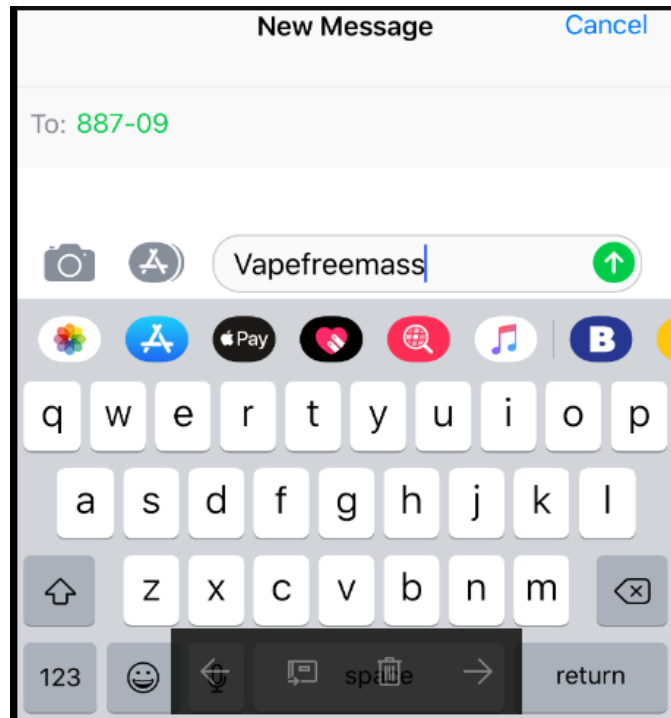
Tone & Style

- First person, non-judgmental, supportive friend
- Interactive (structured & open-ended)
- Messages from other users

TIQ: Dalton says "Remember that stress can be dealt with in other ways! Try meditating or even writing down what the problem is and then figure out solutions." You dealt with hard things before you started to vape, and you still can.

How to Enroll in This is Quitting

- Text opt-in keyword **“VapeFreeMass”** to **88709**
- Texting the keyword **“MASSINFO”** for information specific to Massachusetts once enrolled in the program



MA Short Code

Text 88709

Opt-In Keyword

VapeFreeMass

Additional Keyword

MASSINFO



- My Life, My Quit TM is a program from National Jewish Health, which also runs the MA Smokers Helpline.
- Free and confidential coaching in real time with a youth coach specialized in working with adolescents
- Youth can receive coaching by phone, text, or online chat
- Website also has resources for educators, parents, and health care professionals

Three Ways to Enroll in My Life My Quit

- Call 855-891-9989
- Text "Start My Quit" to 855-891-9989
 - Message frequency will vary. Reply HELP for help. Reply STOP to stop (or cancel). Message and data rates may apply.
- Sign up online at www.mylifemyquit.com



Other Resources for Students

Please see our handout **Youth Vaping Cessation Resources** for printed and web-based resources for youth and adults or contact us at caroline.cranos@umassmed.edu

Other vaping materials are available at the MA Health Promotion Clearinghouse: <https://massclearinghouse.ehs.state.ma.us/category/Vaping.html>

Youth Vaping Cessation Resources
Information for Providers and other Adults who Work with Youth

*Massachusetts Tobacco Cessation and Prevention Program and
UMASS Medical School Center for Tobacco Treatment Research and Training
November 19, 2020 Session Four: Asthma Medical Management Part II*

Quitting vapes or other tobacco products can be hard. Here are some programs and resources to help young people get the support they need:

Quitlines and Texting Programs:

- This is Quitting powered by truth® is a free and confidential texting program for young people who vape. Young people can text "VapeFreeMass" to 88709 to get started. In partnership with the Massachusetts Department of Public Health.
- My Life, My Quit™ is a program from National Jewish Health, the vendor for the MA Smokers helpline. Youth coach specialists are trained to help young people by phone or text. Call or text "Start My Quit" to 855-891-9989 for free and confidential help. For more information or to sign up online, visit mylifemyquit.com.

Printed and Other Resources for Youth:

- Thinking About Quitting Vaping Card – Includes a quick self-assessment of vaping dependence on one side and a list of vaping cessation resources for youth on the other side. Currently available at the MA Health Promotion Clearinghouse: <https://massclearinghouse.ehs.state.ma.us/category/Vaping.html>
- Quitting Vaping – Information for Youth brochure includes a self-assessment of dependence, reasons to quit, tips for handling cravings, and how to get started with the MA vaping cessation resources. Available at the MA Health Promotion Clearinghouse soon!
- Visit www.teen.smokefree.gov for more tools and tips to help you stop using tobacco/vapes
- For more information about vaping visit www.mass.gov/vaping

Printed and Other Resources for Adults:

- Guide for School Nurses and Counselors is a 4-panel folder to help school nurses and other personnel use brief interventions to assist students with vaping cessation. Includes assessment of dependence (Hooked on Nicotine Checklist*), talking points on dependence, assessing readiness to quit, assisting with triggers and handling cravings. May be used to complement This is Quitting or used on its own to discuss vaping with youth. Available at the MA Health Promotion Clearinghouse soon!
- More information for adults, including school professionals, is available at www.GetOutraged.org

Webinar on Vaping Cessation Resources and Link to Full Slide Set



Center for Tobacco Treatment Research & Training



TTS TRAINING

RESEARCH

PUBLIC SERVICE

MEMBER LOGIN

BLOG

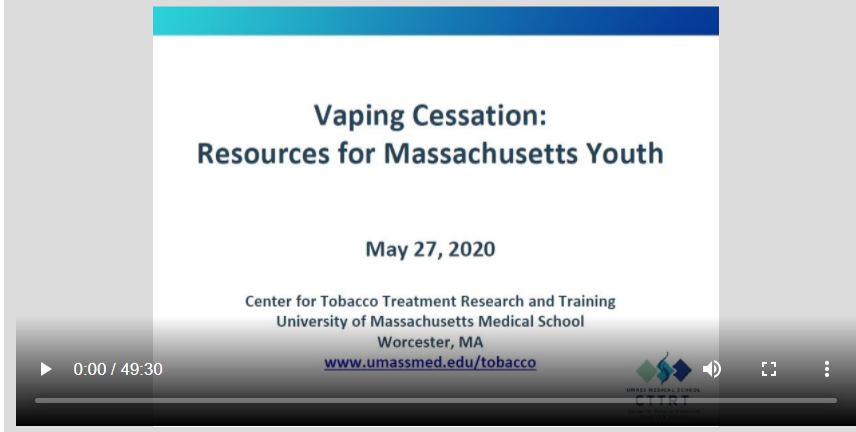
CONTACT US

SUBSCRIBE

Massachusetts Youth Vaping Resources

Massachusetts Youth Vaping Cessation Resources Webinar May 2020

To access and print the presentation on *Massachusetts Youth Vaping Cessation Resources Webinar* that was offered on May 2020 [click here](https://www.umassmed.edu/tobacco/youth-vaping). You can also watch the video below.



Massachusetts Youth Vaping

<https://www.umassmed.edu/tobacco/youth-vaping>

Thank you!

For questions or for more information:
please contact Caroline Cranos at
caroline.cranos@umassmed.edu



Asthma: School Spotlights

Nancy Jenks, MSN, RN, NCSN, AE-C

November 19, 2020

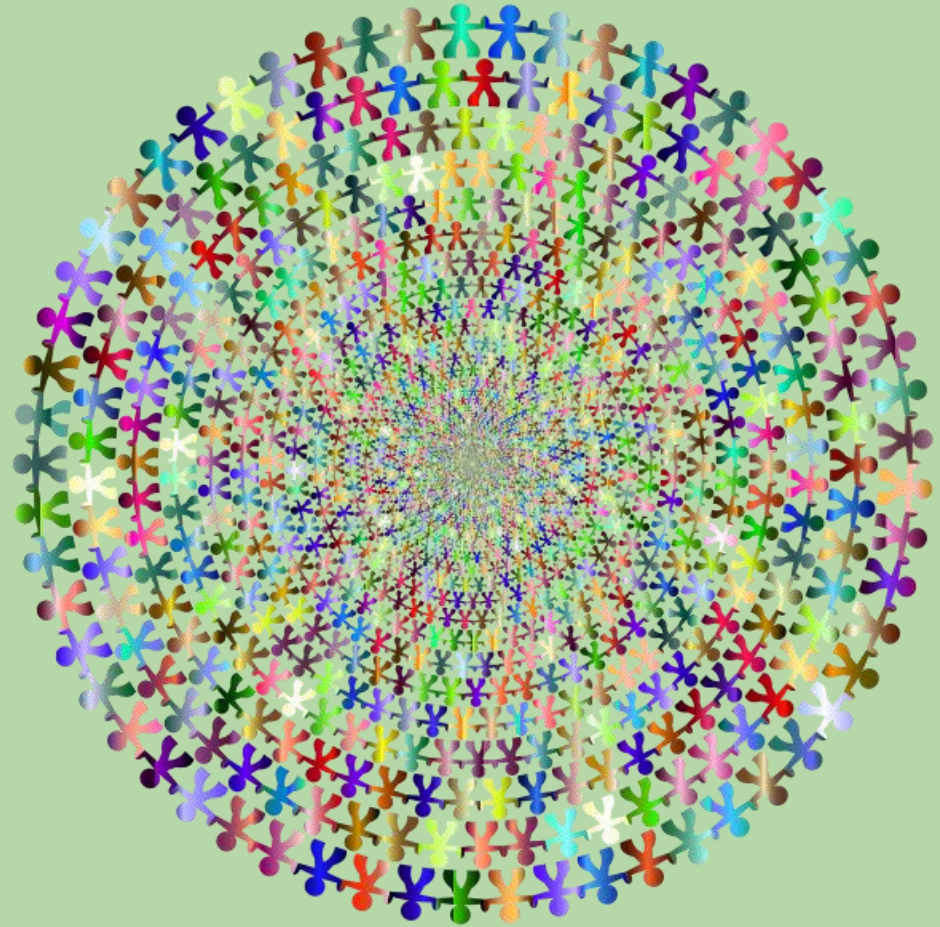
Objectives:

- Addressing Needs
- Community & Asthma Education
- In the Health Clinics



Addressing Needs:

- Transportation
- Diverse Needs
- Knowledge Deficit
- Communication



Community Education:

- Chicopee Health Matters
 - Diverse Health Topics
 - Public Access Channel, Vimeo, Website
 - Comments, Visits



Community Education:

- Community Setting
 - Neighborhood After-school Programs
 - Boys & Girls Club
 - Neighborhood Police Watch Station
 - District Presentation & Supper
 - Potluck Dinner
 - Jeopardy
 - Mini Health Fair



Asthma Education:

- American Lung Association's "Open Airways" Program
 - Grades 3-5
 - School Setting
 - Grants
 - Nursing & School Staff Involvement



In the Health Clinics:

- Bridging the Gaps:
 - Doctor Appointments
 - Medication Order Form
 - Maintenance Meds
 - Monthly Newsletter



In the Health Clinics

- Bridging the Gaps:
 - Asthma Books
 - Check-ins
 - Letter to the Editor
 - AE-C Certification



Thank you!

Thank you for your time & attention!



Questions?

Please contact me,

Nancy Jenks, MSN, RN, NCSN, AE-C

at

njenks@granbyschoolsma.net

with any questions.

Thank you!



BOSTON PUBLIC SCHOOLS ASTHMA CLINICAL UPDATE

Melissa Sweeney MEd BSN RN BA AE-C
November 19, 2020

ASTHMA IN THE BOSTON PUBLIC SCHOOLS

2019-2020 Asthma Data

- Boston Public Schools students with diagnosis of asthma: 9,632; this is 18% of the student body district wide
- Henderson Upper: 146 of 734 students, 19.8%
- Students with IHP for asthma: 2,135
- Doses of albuterol administered in SY 19-20 (as of January 2020): 3,564

COMMUNITY PARTNERSHIP

- Boston Public Schools partners with the Boston Public Health Commission and works closely with Anjali Nath, Director of Asthma Prevention and Control
- BPS and BPHC have supported 8 nurses to become Certified Asthma Educators (AE-C), with a plan for additional nurses to become certified (program interrupted due to Covid)
- BPS funds the program and BPHC provides the education component in conjunction with the Partners Asthma Center
- BPHC provides BPS with a link to the community: Asthma Home Visits (currently virtual) and Breathe Easy At Home (BEAH)

ASTHMA MANAGEMENT IN SCHOOLS

- Asthma Action Plan, medication order within 1 year, medication in box with prescription label
- Self-administration form and teaching when appropriate
- Emergency action plan/IHCP

OFFICE VISITS FOR ASTHMA SYMPTOMS

Scheduled Visits:

- Prior to PE class or recess as indicated by PCP or pulmonologist on Asthma Action Plan
- Inhalers and EpiPens are stored in gallon sized storage bags in numerical order; inside the bag is the student's medication and a copy of medication order; these bags can be used to travel with students on field trips or as a quick grab and go if the nurse needs to travel to a student in the building
- Student comes to the office, brief verbal (review of symptoms) and physical (hr, O₂, auscultation) assessment by nurse
- Focus on education of symptoms, med self administration at beginning of year

OFFICE VISITS FOR ASTHMA SYMPTOMS

Emergent Visits

- Given current precautions in place due to Covid-19, teachers and staff contact the nurse via a school issued cell phone prior to sending to the office with a brief description of symptoms
- Nurse either presents to classroom or instructs teacher to send student to Health Office or Medical Waiting Room
- Nurse brings medication to MWR if indicated
- Verbal/Physical Assessment
- Medication Administration if indicated, contact family
- If minimal to no improvement- contact family or activate 911

USING AN INHALER WITHOUT SPACER- JOB AID

Step 1: Wash/sanitize hands



Step 2- Exhale prior to removing mask

Step 3- Remove mask and Inhale dose from inhaler



Step 4- Replace Mask while holding in medication for 10 count

Step 5- Exhale into mask

Repeat these steps for second dose

Step 6- Wash/sanitize hands

SCHOOL BASED STAFF ASTHMA TRAINING

- Current mandated trainings include: Life threatening allergies, blood borne pathogens and Covid-19
- Asthma training is school dependent
- Training prepared as part of Master's Practicum

RESOURCES

<http://www.asthma.partners.org/>

<https://www.bphc.org/whatwedo/healthy-homes-environment/asthma/Pages/Asthma.aspx>

Thank You & Wrap Up

- Sessions recorded – will post on SHIELD website in December
- CNE awarded at the end of the four (live or recorded) sessions (fee applies)
- Questions Email shieldbu@bu.edu



Thank You!

Questions: Email shieldbu@bu.edu or your Regional consultant.