

November 2020 Clinical Update: Asthma in Home and in School



SHIELD

School Health Institute for Education and Leadership Development



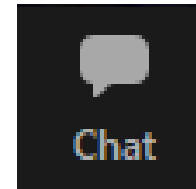
Session 2 of 4

November 10, 2020

COVID: ASTHMA AND INDOOR AIR QUALITY

Zoom/Technical Information

- All participants are muted
- This meeting is being recorded
- The chat icon is at the bottom of your screen:



- Click on the chat icon to open the chat box
- Address content questions to everyone
- Address technical questions to XXX



- Type any questions or comments you have for the instructor into the chat box – we will address as many as we can
- If your name does not appear like this (**Mary Smith**), please rename yourself



Session 2 Objectives

- Implement safe cleaning practices for students diagnosed with asthma
- Recognize symptoms of uncontrolled asthma in an environment of pandemic screening
- Use the DPH Clearing the Air toolkit to make at least one change in your school

Welcome and Introductions

Karen Robitaille, MBA, MSN, RN, NCSN

Director, School Health Unit

Caitlin Pettengill, DNP, RN

Assistant Director, School Health Unit

Erica Marshall, MPH

Deputy Director, Division of Health Protection and Promotion

Shazie Senen, MPH

Program Coordinator, Asthma Prevention and Control Program

Session 2 Introductions:

COVID and Asthma/EPR4 Draft Preview

Megan Sandel, MD, MPH

Co-Director of GROW CLINIC, Boston Medical Center

Safe Cleaning and Disinfecting

Elise Pechter, MAT, MPH, CIH

MA Department of Public Health

Al Vega, BS

MA Coalition for Occupational Safety and Health

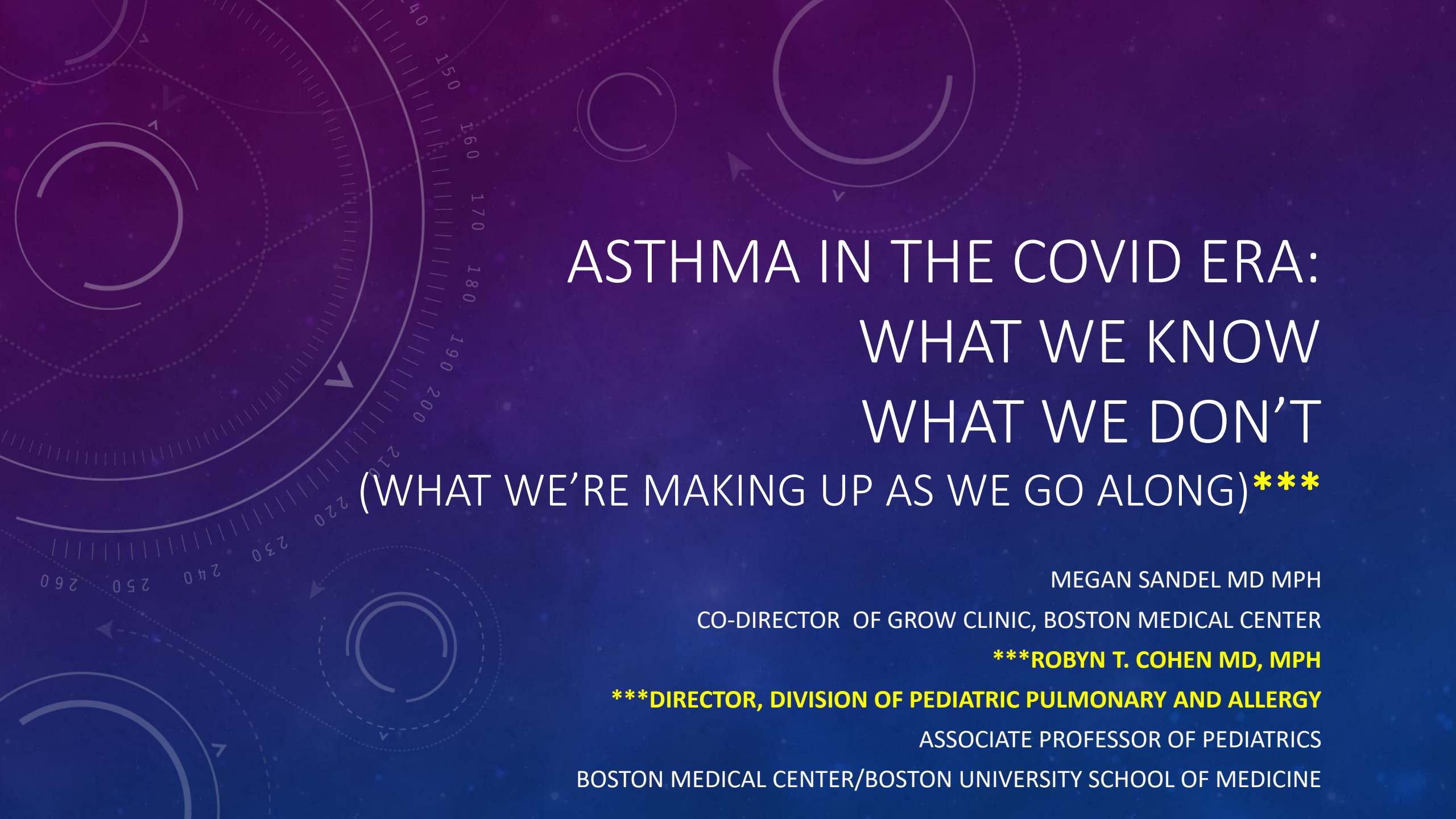
Cleaning the Air Toolkit

Stacey Chacker, BA

Director of Environmental Health

Elise Bengochea

Director, Policy and Practice
Health Resources in Action



ASTHMA IN THE COVID ERA: WHAT WE KNOW WHAT WE DON'T (WHAT WE'RE MAKING UP AS WE GO ALONG)***

MEGAN SANDEL MD MPH

CO-DIRECTOR OF GROW CLINIC, BOSTON MEDICAL CENTER

*****ROBYN T. COHEN MD, MPH**

*****DIRECTOR, DIVISION OF PEDIATRIC PULMONARY AND ALLERGY**

ASSOCIATE PROFESSOR OF PEDIATRICS

BOSTON MEDICAL CENTER/BOSTON UNIVERSITY SCHOOL OF MEDICINE

IN THE NEXT 20 MINUTES

- Conventional wisdom about COVID and asthma
- What is the evidence:
 - Risk of infection
 - Health care utilization
 - Severe morbidity and mortality
 - Potential explanations
- Acute management of asthma during COVID
- Chronic management of asthma during COVID

WHAT DOES THE CDC SAY?

- “People with moderate to severe asthma *may be* at higher risk of getting very sick from COVID-19. COVID-19 can affect your nose, throat, lungs (respiratory tract); cause an asthma attack; and possibly lead to pneumonia and acute respiratory disease.
- Continue current medications, including any inhalers with steroids in them
- Talk to your healthcare provider, insurer, and pharmacist about creating an emergency supply of prescription medications, such as asthma inhalers. Make sure that you have 30 days of non-prescription medications and supplies on hand in case you need to stay home for a long time.”
- “Any disinfectant can trigger an asthma attack.”



WHAT IS THE EVIDENCE: RISK OF GETTING COVID?

- Several studies of COVID+ patients that describe the proportion of patients with + tests who have asthma (10-20%)
- These studies do not present the proportion of all patients tested with asthma
- Population-based seroprevalence studies (Spain, China, Iran, Chelsea, California, etc) don't provide data on asthma status
- **Conclusion:** Unclear if having asthma is a risk factor for acquiring a SARS-Cov-2 infection

WHAT IS THE EVIDENCE: RISK OF SEVERE DISEASE?

- From Montefiore, 3/15/20-4/13-20: Asthma more common among those hospitalized than those managed as outpatients but not a risk factor for PICU admission. 1 death in a child with metastatic CA.
- From Columbia, 2/11/20-5/7/20: 1300 hospitalized COVID patients, 12.6% had asthma overall; 24% of the 55 hospitalized children had asthma
 - Asthma not associated with LOS, intubation, time to extubation, death
 - Biomarker profile (CRP, D-dimer, ferritin) better among those with asthma, no effect of systemic or inhaled steroids
- Northwestern hospital system in Chicago, children<18, 3/1/20-4/15/20:
 - No differences in hospitalization or mortality between children with/without asthma
 - Biomarker profile (CRP, D-Dimer, LDH, ferritin) lower in those with asthma
 - Inhaled steroids not associated with risk of hospitalization

Chao JY et al, *J Peds* 2020

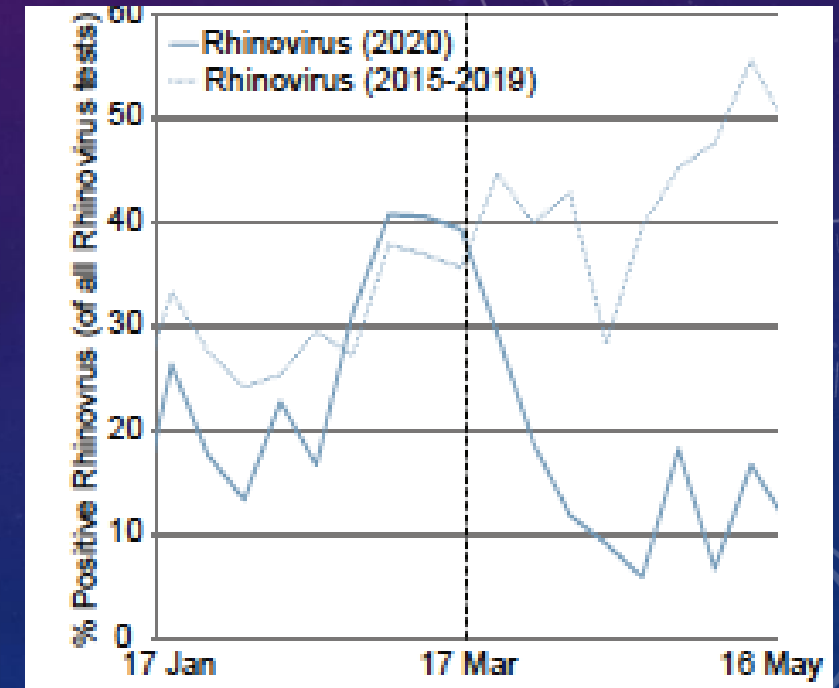
Lovinsky-Desir S et al, *JACI* 2020

Chhiba KD et al, *JACI* 2020

SO WHAT ARE WE SEEING?

Less acute health care use for asthma in the COVID era.

- CHOP 3/19-4/18, compared to 1/1-3/18:
 - 76% decrease in number of ED visits per day for asthma
 - % of children admitted w/asthma from ED decreased from 31% to 22%
- CHOP: data from 1/17-5/17; compared pre vs. post 3/17 and with prior years.
 - Clinic asthma encounters ↓ 87%
 - ED/hosp asthma encounters ↓ 84%
 - Systemic steroid prescriptions ↓ 83%
 - Huge drop in HRV infections compared to prior years
 - No changes in air pollution ($PM_{2.5}$, PM_{10} , NO_2 , Ozone)



Kenyon CC et al, *JACI in Practice* 2020
Taucheche K et al, *JACI in Practice* 2020

SHIFTING GEARS...



TREATMENT OF **ACUTE** ASTHMA IN THE COVID ERA

- Data suggest that for mild-moderate exacerbations, albuterol via MDI is as effective – if not more effective – than via nebulizer
- Moderate—severe exacerbations: Albuterol/Atrovent via nebulizer reduces admissions, but albuterol/atrovent via MDI does not



Nagakumar et al. *Arch Dis Child* 2020

TREATMENT OF **ACUTE** ASTHMA IN THE COVID ERA

Strategies to conserve albuterol MDI's during COVID19 shortages

- Reuse/share MDI's
 - Alcohol is not enough to prevent transmission of infection; we use Purple Saniwipes
 - VHC (“spacers”) generally should not be shared but some can be autoclaved
- Use expired MDI's – safe for ≥ 12 months after expiration date
 - Store away from sunlight, high temperatures, and changes in humidity
- Have patients use their own MDI's
- Discourage “community stockpiling”
- IV β -2 agonists
 - Some patients are “too tight” for an MDI/Spacer
 - Longer duration of action than epi



Elbeddini A et al. *Drugs and Therapy Perspectives* 2020
Strauss RA. *J Am Coll Emerg Physicians Open* 2020
Mei-Zahav M, Amirav I. *Ped Pulm* 2020

TREATMENT OF **ACUTE** ASTHMA IN THE COVID ERA

Systemic corticosteroids?

- Early studies suggested systemic steroids were associated with
 - More severe COVID pneumonia
 - Prolonged viral shedding
- Early WHO recommendations: avoid steroids/lower doses/shorter courses
- No clinical trials have evaluated risk/benefits of steroid bursts for asthma exacerbations during the COVID19 pandemic
- Multiple major medical societies recommend following standard asthma guidelines including steroid bursts during COVID pandemic
 - GINA, ALA, BTS, AAAAI, ACAAI

MANAGEMENT OF **CHRONIC** ASTHMA DURING COVID

- Early theoretical concerns about corticosteroids
- *In vitro* studies in pre-print:
 - Treatment of human respiratory epithelial cells with budesonide inhibits other coronaviruses and associated inflammatory cytokines
 - Ciclesonide (synthetic corticosteroid in Alvesco) blocks SARS-CoV-2 replication and SARS-CoV-2 cytopathic activity

Halpin DM et al. *Eur Resp Journal* 2020
Matsuyama S, *Biorxiv* (preprint) 2020

SUMMARY

- Asthma does not appear to be a significant risk factor for acquiring COVID 19
- Asthma does not appear to be a significant risk factor for severe disease or mortality from COVID 19
- Patients with underlying asthma who get COVID 19 do not seem to be having asthma exacerbations triggered by COVID 19
- Patients with asthma should receive guideline based care for acute exacerbations and chronic management – don't divert from what we know works
- Nebulizer treatments, HFNC, and PPV are aerosolizing procedures that should be avoided if possible but provided if indicated, using all necessary safety precautions
- We need to be creative to conserve MDI's during shortages
- The goal is to keep our patients with asthma as well controlled as possible!



Massachusetts Department
of Public Health



Cleaning and Disinfecting in the Time of COVID-19

Elise Pechter

Al Vega

Nov 10, 2020

GOALS

- Continue focus on airborne transmission
- Avoid overuse of antimicrobial pesticides
 - That cause asthma
 - That are not food-safe
 - That are dangerous and/or unnecessary
- Avoid underuse of antimicrobial pesticides
 - Follow label for dwell time
 - Follow label and SDS for precautions
- Responsibilities and Rights
 - Right to Know
 - Allies and Partners

REVIEW—TRANSMISSION OF COVID-19

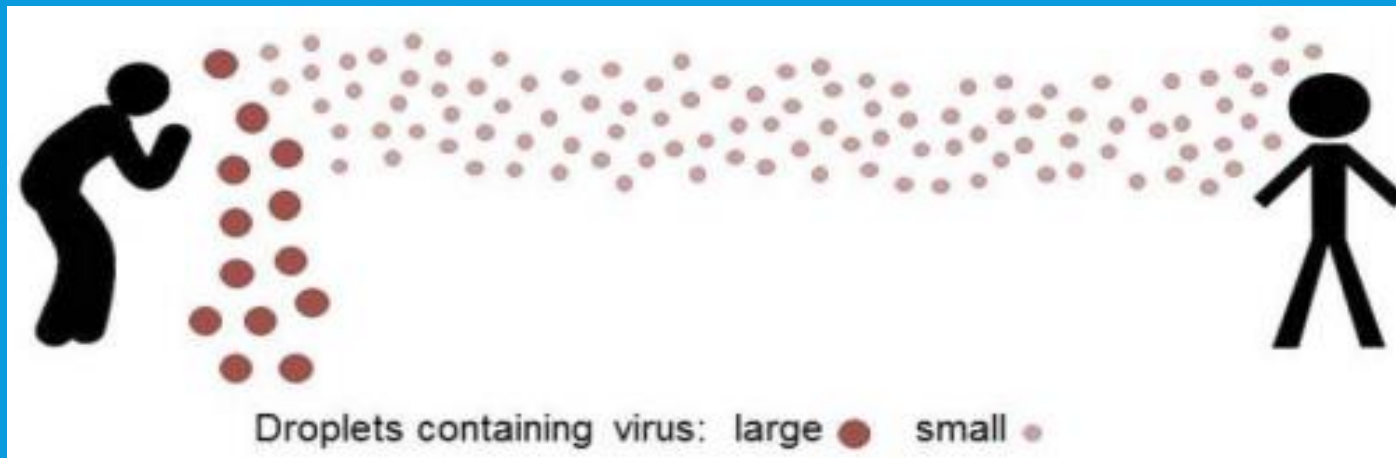
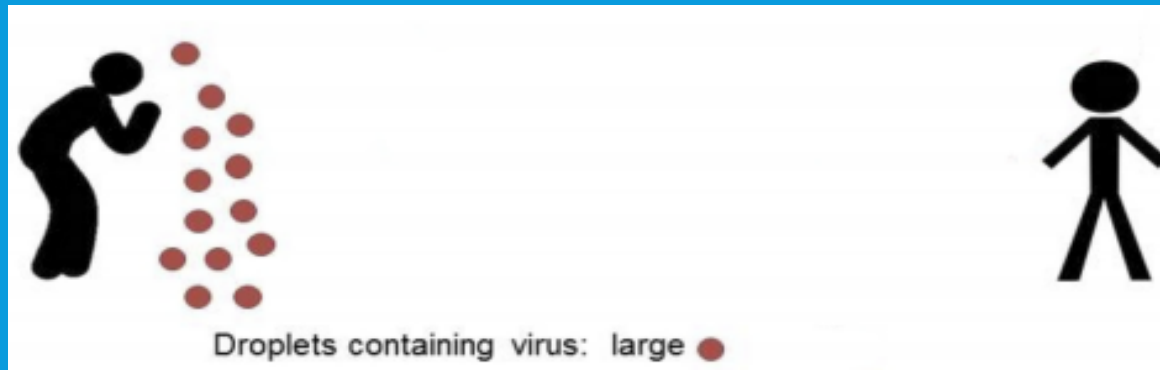
- Large droplet
 - Coughing, sneezing, singing, speaking, breathing
- Contact—touching
- Airborne
- Contact with a surface that has virus and then to nose, mouth or eyes
 - From deposition from air
 - From touch of someone who sneezed/coughed into hand

What's wrong
with this
picture?

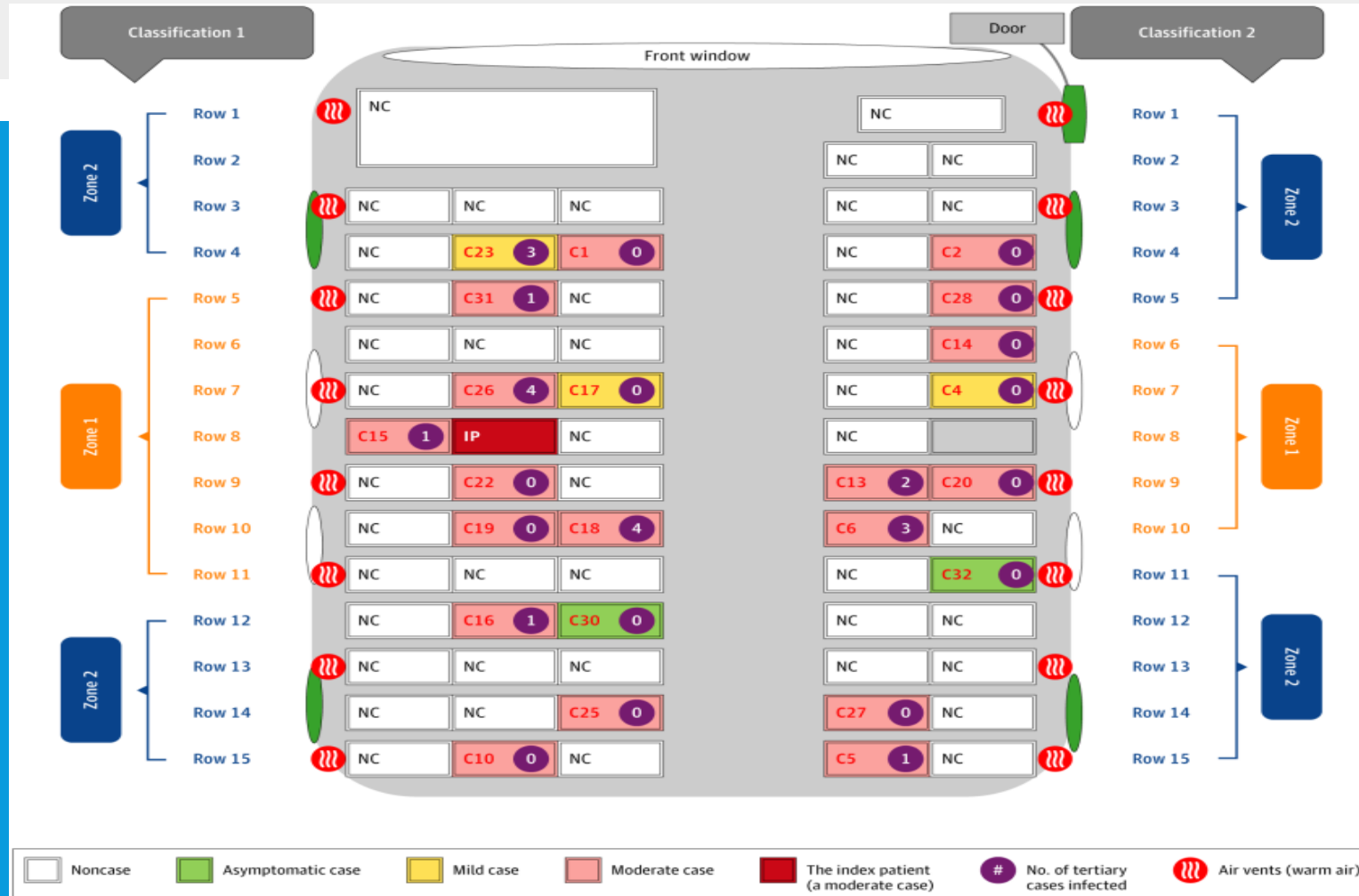


"The patient in the next bed is highly infectious. Thank God for these curtains."

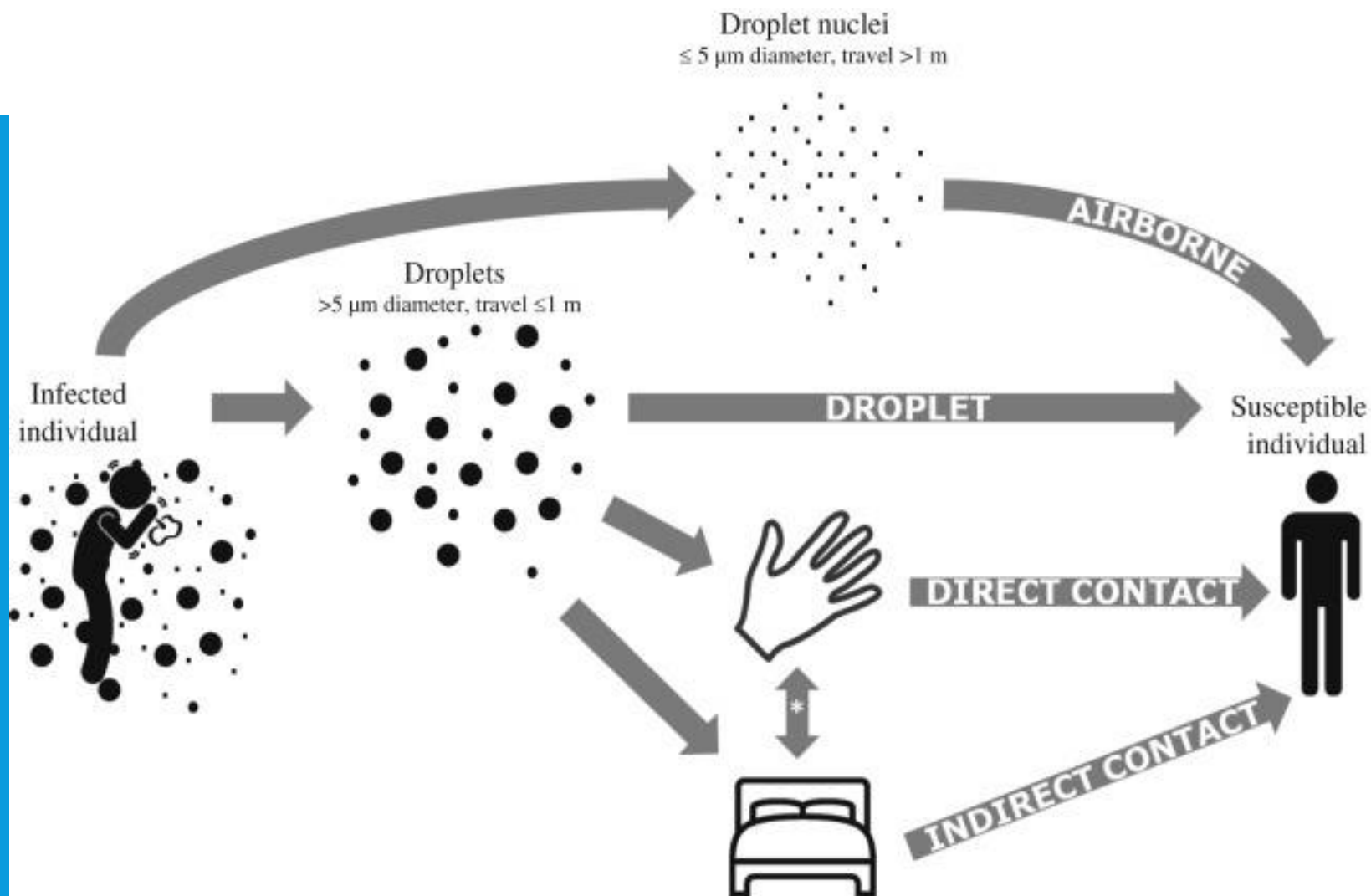
TRANSMISSION OF COVID -19



From: Community Outbreak Investigation of SARS-CoV-2 Transmission Among Bus Riders in Eastern China



Schematic Diagram of Bus 2, the Bus Carrying the Coronavirus Disease 2019 (COVID-19) Initial Patient (IP) Classification 1 and 2. Two different approaches to define high-risk and low-risk COVID-19 zones are indicated: zone 1 (high-risk zone) and zone 2 (low-risk zones). Severity levels of cases were indicated. Windows are indicated with ovals, and there are 4 green side windows and that could be opened for fresh air. C indicates case; NC, noncase.



* Transmission routes involving a combination of hand & surface = indirect contact.

WHAT HAPPENS WHEN DROPLETS LAND?

HOW DANGEROUS ARE SURFACES?

**IS COVID TRANSMITTED FROM TOUCHING
CONTAMINATED SURFACES AND THEN
TOUCHING NOSE MOUTH OR EYES?**

- Evidence that virus survives on surfaces
- Best ways to break transmission chain
 - Handwashing
 - Cleaning surfaces
 - Disinfecting surfaces

Van Doramelan et al, Letter to editor NEJM Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1, 4/20
<https://www.nejm.org/doi/full/10.1056/nejmc2004973>

Pastornino B et al. Prolonged Infectivity of SARS-CoV-2 in Fomites Emerging Inf Dis 9/ 20
https://wwwnc.cdc.gov/eid/article/26/9/20-1788_article#tnF1

Santarpia JL, et al. (not peer reviewed) Transmission Potential of SARS-CoV-2 in Viral Shedding Observed at the University of Nebraska Medical Center 3/20
<https://www.medrxiv.org/content/10.1101/2020.03.23.20039446v2.full.pdf>

Kasloff SB et al. (not peer reviewed) Stability of SARS-CoV-2 on Critical Personal Protective Equipment 6/20
<https://doi.org/10.1101/2020.06.11.20128884>

Riddell S. et al. The effect of temperature on persistence of SARS-CoV-2 on common surfaces Virology J 10/20
<https://virologyj.biomedcentral.com/articles/10.1186/s12985-020-01418-7>

Goldman E. Exaggerated risk of transmission of COVID-19 by fomites. Lancet Infectious Diseases 7/20
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30561-2/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30561-2/fulltext)

Mondelli MU et al Low risk of SARS-CoV-2 transmission by fomites in real-life conditions Lancet Infectious Diseases 9/20
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30678-2/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30678-2/fulltext)

All laboratory studies

Detect virus days later,
on plastic!

Unclear if infective or
only viral debris

Very high doses
applied, lysate

Controlled
conditions—dark,
relative humidity

Err on side of caution—
surfaces may contain
virus

But not so much

SURFACES SUMMARY

- Fomites are **not a big** risk
 - CDC “it *may* be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this isn’t thought to be the main way the virus spreads.”
<https://www.cdc.gov/media/releases/2020/s0522-cdc-updates-covid-transmission.html>

CDC: SIX STEPS FOR PROPERLY CLEANING AND DISINFECTING YOUR SCHOOL

- <https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/schools-childcare/Six-Steps-for-Cleaning-Disinfecting-school.pdf>
- Use EPA approved disinfectant [epa.gov/listn](https://www.epa.gov/listn)
 - Pesticide
 - N list specifically for COVID
- Follow label directions
- Clean surfaces and figure out how to disinfect
- Follow contact time
- Wear gloves and wash hands afterwards
- Store safely

DANGERS



- Purchase disinfectants without review
- Long dwell time
- Not food safe
- Some contain asthmagens
- *Require* gloves and eye protection
- Concentrate v diluted
- Labels and SDS
- Keep away from children



for use against
SARS-COV-2

BETTER CLEANING AND DISINFECTING

- Clean (removes 99%)
- Select where and when to disinfect
 - Beware of under use
 - Beware of over use
- Hand-washing breaks transmission
- Don't fog or mist
 - Dwell time
 - Creating pesticides in the air
- Microfiber cloths, spray into cloth not hard surface

SAFER COVID-19 CLEANING PRODUCTS AND DISINFECTANTS

- EPA approved safer disinfectant ingredients
 - Citric acid
 - L-lactic acid
 - Hydrogen peroxide
 - Caprylic acid
 - Thymol (if others not available)



<https://www.sfapproved.org/safer-covid-19-cleaning-products-and-disinfectants>



Cleaning *physically removes* germs, dirt, and impurities from surfaces or objects by using soap (or detergent) and water.

This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

Disinfecting *kills* germs on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects.

This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

Clean surfaces and objects using soap and water prior to disinfection.

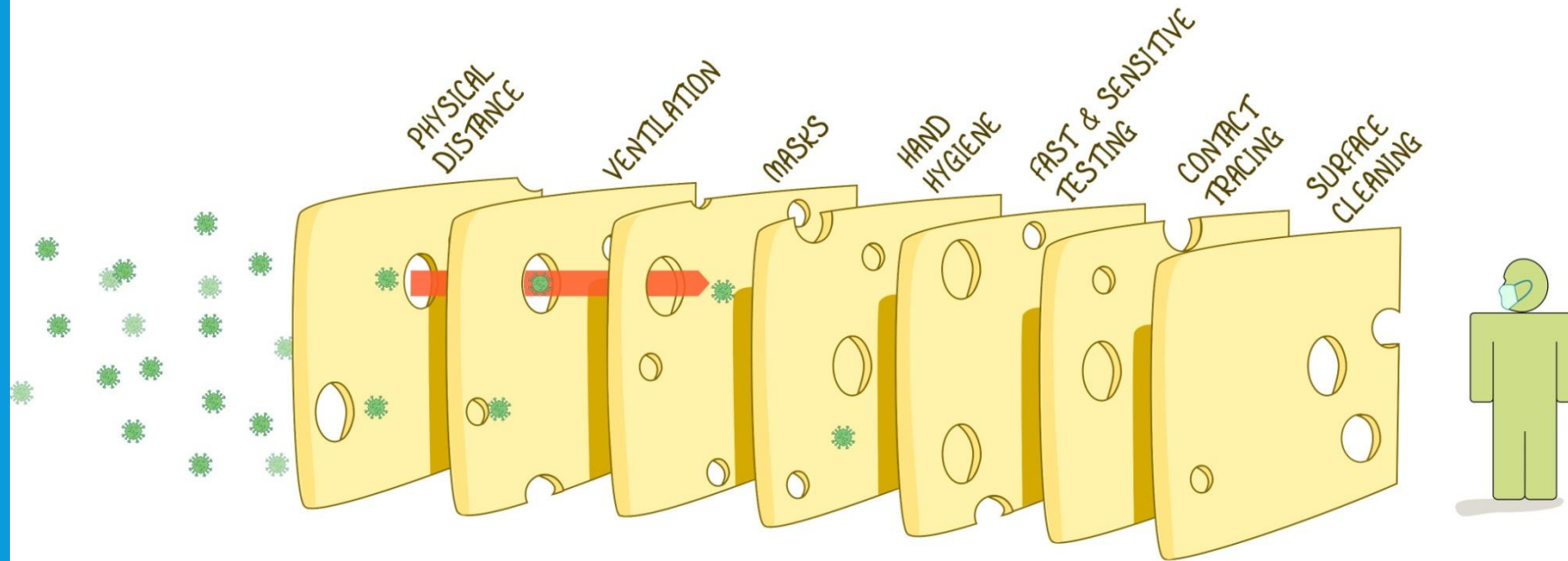
<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/clean-disinfect-hygiene.html#Cleaning>

APPEARANCES VS. REALITY



THE SWISS CHEESE RESPIRATORY VIRUS DEFENCE

RECOGNISING THAT NO SINGLE INTERVENTION IS PERFECT AT PREVENTING SPREAD



EACH INTERVENTION (LAYER) HAS IMPERFECTIONS (HOLES).
MULTIPLE LAYERS IMPROVE SUCCESS.

IAN M MACKAY
VIOLOGYDOWNUNDER.COM
DERIVED FROM @SKETCHPLANATOR
VERSION 1.2
UPDATE: 12OCT2020

6 Steps for Safe & Effective Disinfectant Use



Step 1: Check that your product is EPA-approved

Find the EPA registration number on the product. Then, check to see if it is on EPA's list of approved disinfectants at: [epa.gov/listn](https://www.epa.gov/listn)



Step 2: Read the directions

Follow the product's directions. Check "use sites" and "surface types" to see where you can use the product. Read the "precautionary statements."

Step 3: Pre-clean the surface

Make sure to wash the surface with soap and water if the directions mention pre-cleaning or if the surface is visibly dirty.



Step 4: Follow the contact time

You can find the contact time in the directions. The surface should remain wet the whole time to ensure the product is effective.

Step 5: Wear gloves and wash your hands

For disposable gloves, discard them after each cleaning. For reusable gloves, dedicate a pair to disinfecting COVID-19. Wash your hands after removing the gloves.



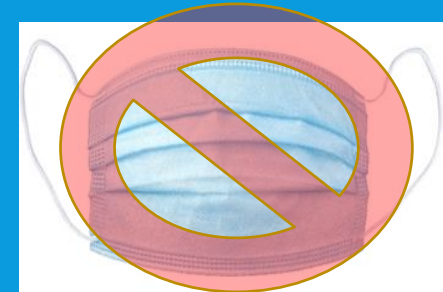
Step 6: Lock it up

Keep lids tightly closed and store out of reach of children.

[coronavirus.gov](https://www.coronavirus.gov)

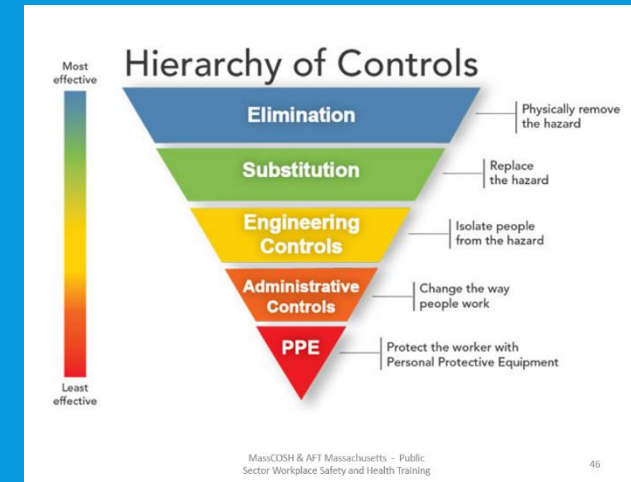
HIGHER RISK IN NURSE'S OFFICES?

- More likely to have contaminated surfaces
- Ventilation necessary
- N95
- Disinfectant needed
- Gloves, face shields, clothing covers
- Isolation rooms/waiting rooms



SO WHAT CAN I DO IF I, MY STUDENTS AND/OR MY CO-WORKERS FEEL UNSAFE AT SCHOOL?

- FIRST, speak with a school administrator or supervisor AND ask the employer to correct the unsafe working conditions.
- Document the request in writing & provide pictures of the issue (if possible & when needed)
- The employer must follow the "hierarchy of controls" in correcting the issue
- IF NOTHING HAPPENS, you can contact your local board of health and file a confidential complaint with the Dep. of Labor Standards (DLS) which can result in escalating actions (inspection, citations, cease & desist letter) depending on the response from the employer
- We want to reiterate that doing this with as many coworkers possible is best and will ensure all issues are raised together (ASAP) and ensure your employer can't deny the range of hazardous conditions being brought up by their workforce



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

RIGHTS AND RESPONSIBILITIES



- It is the law & your right to a workplace free of hazards
- If you feel like no one is hearing your concerns, it is your right to speak up and demand that your employer take action without fear of retaliation i.e. OSHA 11©
- Organizing & speaking with other coworkers who share similar concerns is the best way to approach an employer with concerns and solutions while avoiding being singled out
- Ideally, you want to be able to work with your employer so that you can find a common solution to you and /or your coworkers' problem (i.e. green cleaners or hydrogen peroxide to replace more hazardous cleaning option)

THANK YOU!

QUESTIONS?

- Al.Vega@masscosh.org
- Elise.Pechter@mass.gov

www.masscosh.org

Clearing the Air: An Asthma Toolkit for Healthy Schools

NNPHI Learning Community on School Health
November 10, 2020



Health Resources in Action
Advancing Public Health and Medical Research

Thank you!



Elena Bengochea

Program Associate, Policy and Practice
Health Resources in Action

ebengochea@hria.org



Stacey Chacker

Director, Policy and Practice
Health Resources in Action

schacker@hria.org



Context



Massachusetts
Asthma Action Partnership

<http://www.maasthma.org>
https://twitter.com/MA_Asthma

- A program of HRiA, funded by the MA DPH.
- **Mission:** to reduce the impact of asthma with an emphasis on health equity, particularly in communities of color and economically disadvantaged communities.
- Links local efforts across the state to achieve sustainable statewide changes in the environment, education and quality of health care as they relate to asthma.
- Serves as a learning network to share program and policy experiences, barriers, strategies, materials and resources.



Asthma & Schools – Why?

Asthma: Leading chronic disease, causing school absenteeism

- High **rates of asthma in Massachusetts**
- **Black and Brown children much more burdened**
- Children who aren't in school **can't learn**
- Custodians and teachers also have high rate of **work-related asthma**

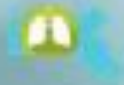
Poor indoor air quality

- Can cause:
 - Chronic respiratory problems
 - Headaches
 - Dizziness
 - Dry eyes and throat
 - Other serious health problems
- Reduces school staff's ability to perform specific mental tasks requiring concentration, calculation or memory



NEW RESOURCE!

Clearing the Air: An Asthma Toolkit for Healthy Schools



Massachusetts
Asthma Action Partnership



Health Resources in Action®
Advancing Public Health and Medical Research



Developed by Health Resources in Action and MAAP, in collaboration with, and with funding from the Department of Public Health's Asthma Prevention and Control Program



Toolkit Development



A series of key informant interviews with Prevention and Wellness Trust Fund communities were conducted to inform content. The field wanted:



- Help identifying a starting point and prioritizing needs
- Different modes of tools/resources (e.g., webinars, factsheets, etc.) to reach every type of learner
- A rationale for different policy areas to get stakeholder buy-in
- Sample policies
- No/low cost ideas



Many tools and resources already exist – didn't want to recreate the wheel



Toolkit created with Massachusetts schools in mind



Name one of the biggest environmental challenges for students & staff with asthma in your school(s)

Submit your answers in the chat box!



Look Familiar?



Let's Take a Closer Look



AN ASTHMA TOOLKIT FOR HEALTHY SCHOOLS

Clinical Asthma Management in the School Setting



Impact on Asthma

Proper asthma management includes the prevention and management of environmental triggers and adherence to medication. These measures reduce the potential for asthma symptoms and episodes. Asthma management is an important component in promoting the health and safety of a child with asthma, and ensuring that asthma does not interfere with a child's school attendance, performance, or daily activities.

A comprehensive approach to asthma management in schools is important in managing this chronic condition. Preventing and managing environmental triggers have been covered in the other policies, either by individual trigger or in whole as school-wide environmental health and management. It is important to also address the health services component of asthma management.

Policy Guidance

Ensuring that students with asthma have an individualized health plan and access to medication is essential to successful asthma management at school. An Asthma Action Plan (AAP) is an important tool to communicate and coordinate asthma management among the health care provider, patient, family, and school. A school policy that requires every student with asthma to have an Asthma Action Plan on file allows for a school nurse or other school personnel to help students with asthma and ensure that their asthma is managed appropriately — from routine daily care to dealing with triggers and worsening symptoms.

Access to medication, especially emergency medication, is very important in treating asthma episodes. Students will either carry an emergency inhaler or keep one in the nurse's office, but it is important to have a back-up option. Passing a policy to have stock bronchodilators (a common medication to treat an asthma attack) on hand at schools is a great way to ensure that there is medication readily available in an emergency. This allows school staff to treat an asthma episode in cases when students don't have their own inhalers.

Example Policies

School policies that promote asthma management should include a rationale, definitions, role of key

Policy & Practice Areas

- 1 School-wide Environmental Health & Safety Management
- 2 Green Cleaning & Environmental Purchasing Programs
- 3 Integrated Pest Management
- 4 Leaks & Moisture
- 5 Clutter
- 6 Outdoor Air Pollution
- 7 Fragrance
- 8 Tobacco
- 9 Clinical Asthma Management in the School Setting



Engaging the Key Players

How can different roles in the school system contribute to creating an asthma-friendly environment?

Together, we can manage the environmental triggers of asthma:



Teacher



Nurse



Facilities Manager,
Custodian



Administrator



Parent



Student



Policy & Practice: How to start with policy

Reason for the policy

- What is the problem?
- How can the policy improve school health?

Policy statement

- What is the policy and what does it require?
- Roles and responsibilities

Communicating the policy

- How will the policy be communicated to the school or school district?
- How will it be implemented and enforced?

Evaluating the policy

- How will the policy be followed and evaluated to make sure it is working?
- Roles and responsibilities



Policy & Practice: How to start with practices

Examples of school-wide or district-wide **practices**:

Organizing a
“Clean Out” Day
with parents and
teachers

Requiring use of
green cleaners in
the classrooms

Working with
teachers to reduce
classroom crumbs
and pests



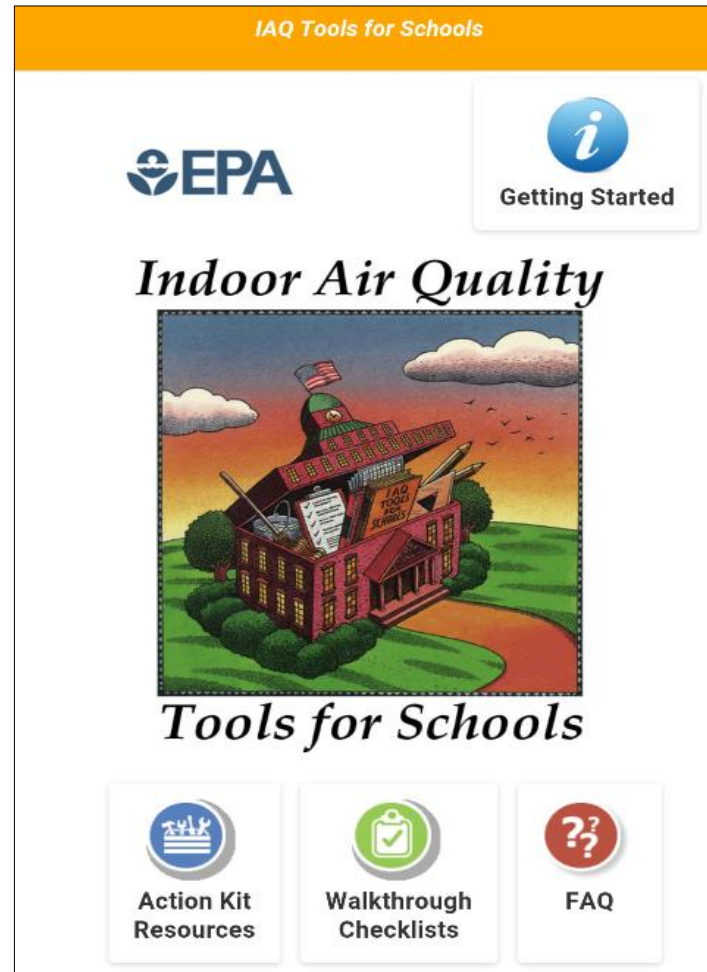
Walkthrough Resources

Environmental Walk-Through Checklist

School: _____ Room # area: _____
Return to: _____ By: _____
Please use this checklist to survey your classroom or area. _____ will summarize the results and create an action plan for our school.

Observations (sources for asthma triggers)	Yes	No	Please describe (give dates, time of day, duration of problem if applicable)
Excessive dryness			
Humidity			
Visible mold			
Leaks, dampness			
Water stains on walls, floors, carpets, ceilings			
Old/ damaged rugs			
Excessive dust			
Signs of bugs or rodents			
Other:			
Ventilation	Yes	No	Please describe (give dates, time of day, duration of problem if applicable)
Stuffiness			
Extreme temperature changes (hot and cold)			
Dirty air vents			
Air vents blocked by supplies, furniture			
Air flows through vent into room			
Air exhausts from room into vent			
Windows are operable			
Other:			
Odors and Fumes from:	Yes	No	Specify what has strong fumes or odors
Renovations or repairs			
Bus or vehicle exhaust			
Copiers, printers, laminating equipment			
Cleaning supplies			
Perfumes, air fresheners			
Other:			
Health	Yes	No	Please describe (give dates, time of day, duration of problem if applicable)
Student health complaints			
Teacher health complaints/comments			

Adapted by Health Resources in Action from the EPA Tools for Schools



- Bureau of Environmental Health's MA School Checklist
- Slide deck on how to do a walkthrough
- Video series



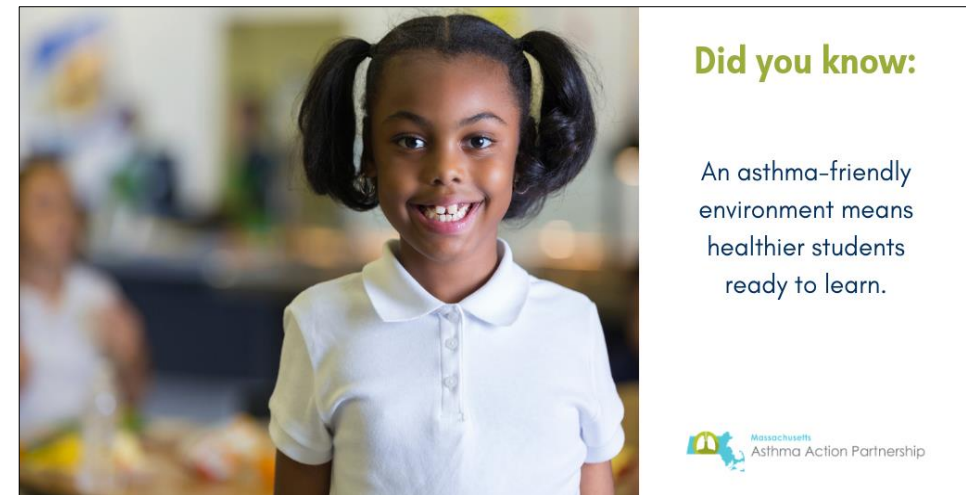
Promoting Toolkits: The Challenges and Successes

(or now we have the Toolkit – so what?!!)



Dissemination – Some Efforts

- Social Media Toolkit:
 - Twitter
 - Sample newsletter articles
 - Sample blogs
- Conferences
- Webinars
- Trainings
- Partnerships – seek resources to work with most burdened communities.



Opportunities / Strategies

- Training and grants for school wellness teams
- CEU training for school nurses – via DPH School Health Program (aka – you) and associations
- Information sessions with DPH School Nurse Consultants
- MAAP partners and DPH sponsored trainings/ Ambassador Programs
- Statewide association meetings
 - Facility managers, Parent Teacher Association, public health



Challenges

- **Systemic Racism is at play – poorly maintained buildings with under-resourced maintenance in high burdened communities, which are typically communities of color.**
- Wellness Committees and Policies are largely focused on healthy food and physical activity.
- Activity – with grant funding. Drop off after.
- Difficult to get district wide policies.
- Even with policies – TA needed to implement and maintain (e.g., IPM)
- Teachers and parents don't always follow policies (e.g., no food in the classroom; bringing in disinfectants).
- Perspective that asthma is the nurse's responsibility.



In the Time of COVID-19

- Ventilation is critical!
- Focus on disinfecting (or over disinfecting)
 - Parents and teachers may send in/bring in products that are not approved.
- Reallocation of resources...away from school buildings.
- Resources:
 - [Safety Guidance for Cleaning and Disinfecting for COVID -19](#)
 - [Schools for Health: Harvard TH Chan School of Public Health](#)
 - [COVID-19 and Asthma Toolkit for Schools \(AAFA\)](#)
 - Others.



Guía de seguridad para la limpieza y desinfección para COVID-19 (y en general)

La mejor manera de prevenir la enfermedad del coronavirus 2019 (COVID-19) es protegerse a sí mismo y a los demás de estar expuestos. El Centro para el Control y la Prevención de Enfermedades (CDC, por sus datos) han puesto como guía útil para protegerse del COVID-19 e información específica para las personas con asma.

Si bien todos estamos limpiando más que nunca en casa y en el trabajo, es importante **recordarse de prácticas seguras de limpieza y desinfección** para proteger su salud y la de quienes estén alrededor. ¡El uso inapropiado de productos de limpieza puede causar síntomas leves a graves de asma, nueva aparición de asma y otros problemas de salud!

- **Protégase** usando guantes y mascarillas de limpieza impermeables si están disponibles. Los productos químicos y fragancias de los productos de limpieza (incluidos los aerosoles y las toallitas) pueden irritar la piel, los ojos y los pulmones, así que evita el contacto directo y usa el producto menos tóxico siempre que sea posible*.

- **Lávese las manos con agua y jabón** durante al menos 20 segundos inmediatamente después de la limpieza. Lávese las manos inmediatamente y desechar cualquier equipo de protección si está dañado o sucio con fluidos corporales.

- **Ventilar bien** durante y después de la limpieza (por ejemplo: abrir ventanas) sin importar cuál sea el producto.

- **Proteja a los demás** en su hogar limpiando cuando otros no están cerca o mover a los miembros del hogar a un cuarto diferente mientras usted limpia. Guarde a los productos de limpieza fuera del alcance de los niños y las mascotas.

- **¡Nunca mezcle productos!** (por ejemplo: ¡cloro o blanqueador más amoníaco puede producir gases mortales!)

*El CDC recomiendan una lista de desinfectantes aprobados por la EPA que se espera que sean eficaces contra COVID-19 sobre la base de datos para virus más difíciles de matar.

Reconocemos que las opciones de productos pueden ser limitadas en este momento. Siempre que sea posible, **tratar de evitar y no usar productos con los siguientes ingredientes**, que pueden causar síntomas de asma o nueva aparición de asma con uso repetido:

- Fragancia, aromas o tintes: **¡elijá sin perfume cuando puedes!**
- Compuestos de amonio cuaternario o "Quats"
- Amoníaco
- Blanqueador (Cloro)

No importa cuál sea el producto, siga siempre las instrucciones del fabricante para la dilución, la aplicación y ventilación adecuada. También puede leer las instrucciones del CDC sobre limpieza y desinfección para coronavirus, incluidas las soluciones recomendadas de cloro o alcohol cuando sea necesario.

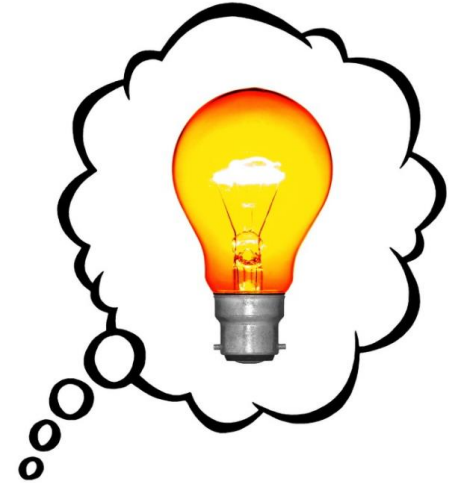
Preparación de desinfectantes domésticos:

- **Soluciones para el alcohol:** Se ha consalsicodo con menos 70% de alcohol.
- **Soluciones de cloro:** Mezcle 4 cucharaditas de cloro por litro de agua o mezcle 5 cucharadas (1/3 taza) de cloro por galón de agua.



Discussion

- Are you using this toolkit or working on asthma initiatives in your own schools?
- Any thoughts to get this toolkit promoted and used, *particularly for schools in most burdened communities?*
- What kind of support, if any do schools need?
- Would it be helpful to have a learning community?



Thank You!

To Join MAAP or
receive newsletters,
email –
maashtma@hria.org



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.