

# **Indoor Air Quality Webinar: State Policy—Lessons Learned and Best Practices**

September 23, 2021

Staci Rubin  
Vice President, Environmental Justice

# Our Work in New England



- Conservation Law Foundation (CLF) is fighting for a healthy climate and resilient communities across New England.
- Everyone has a right to live in a healthy environment and have access to nature.



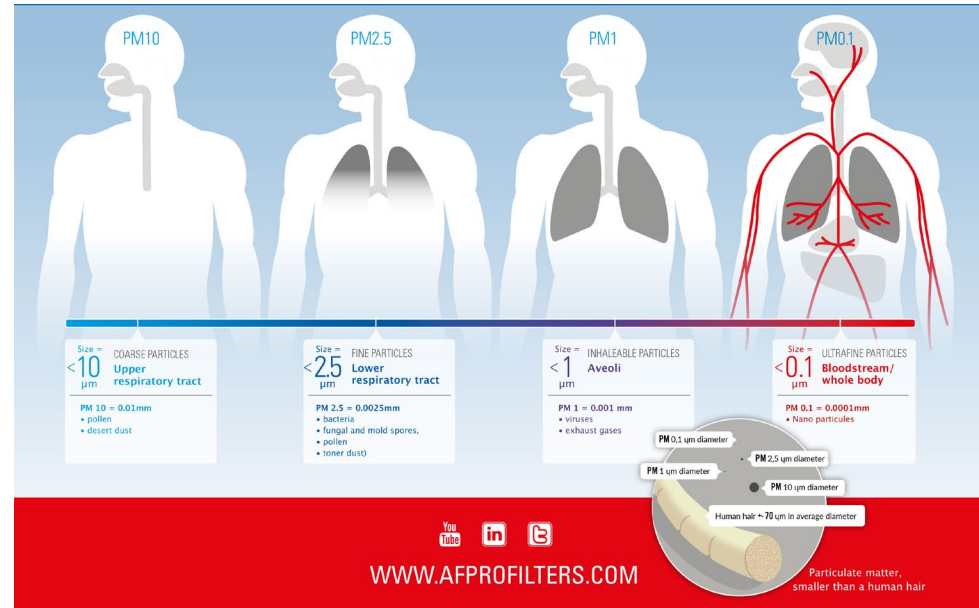
# Environmental Racism in New England



- Air pollution hotspots around congested roadways, ports, and airports disproportionately impact Black, Brown, Indigenous, immigrant, and low-income communities.
- Power plants, incinerators, roadways, and other polluting facilities are disproportionately sited in environmental justice populations.
- Legal frameworks and climate policies have not redressed these historic harms.

# Particulate Matter (PM) Pollution

- Mixture of solid and liquid droplets suspended in the air.
- Sources: power plants, vehicles, airplanes, wood burning, forest fires, agricultural burning.
- PM10 (regulated) can stay in the air for minutes or hours.
- PM2.5 (regulated) can stay airborne for days or weeks.
- Ultrafine (unregulated) are less than 0.1  $\mu\text{m}$  and persist for days or weeks.



# COVID-19 and PM Data

- Large overlap between causes of death of COVID-19 patients and diseases that are affected by long-term PM exposure.
- Long-term PM exposure:
  - Affects the respiratory and cardiovascular system;
  - Exacerbate severity of COVID-19 symptoms; and
  - Increase risk of death in COVID-19 patients.
- [Air pollution from burning fossil fuels](#) like oil and gas damages people's lungs and makes them more likely to experience worse symptoms of COVID-19 and more likely to die.
- [1 in 5 children in the United States has asthma](#) because of car exhaust. Children with asthma are disproportionately people of color and [tend to live closer to highways](#).



# Air Filters

High UFP removal by the best air filtration systems:

MERV 16 gets all but **RED**

MERV 13 misses the **BLUE**

SARS-CoV-2 in **GREEN**

Viruses are thought to be carried by aerosols and droplets

MERV 16 is Much Better  
Than MERV 13 Air Filtration

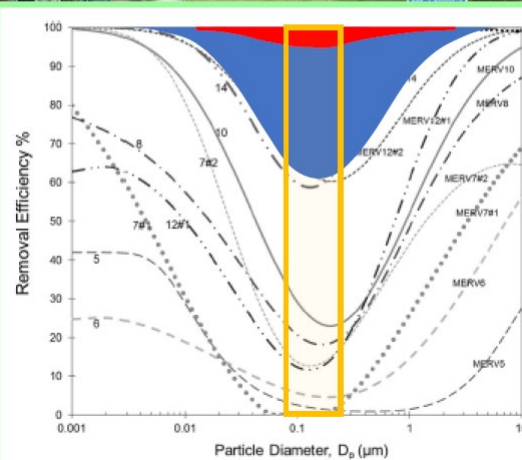


Fig. 5. Size-resolved removal efficiency of various MERV filters used herein.

# Massachusetts Air Quality Bill, H.2230 / S.1447

Supported by MA Environmental Justice Table, MAPC, Somerville Transportation Equity Partnership:

- ✓ **Expand air monitoring** of black carbon and ultrafine particulate matter.
- ✓ **Set and achieve ambitious air quality targets** by 2030 and 2035.
- ✓ **Require installation of air filters in existing eligible buildings**, such as schools, residential buildings with more than 2-tenant occupied units, correctional facilities, and certain commercial buildings within 500 feet of congested roadways.



# Massachusetts Air Quality Bill, H.2230 / S.1447

- ✓ **Require advanced air filters, MERV 16, for new eligible buildings**, such as day care facilities, hospitals, long-term care facilities, temporary shelters, nursing homes.
- ✓ **Improve mold enforcement** by updating the state sanitary code.
- ✓ **Prevent installation of new gas stoves** by upgrading building codes.

