

# Triple Threat: How Law, Policy, and Epidemiology Can Improve Indoor Air Environments and Energy Efficiency

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# What did we try to understand?

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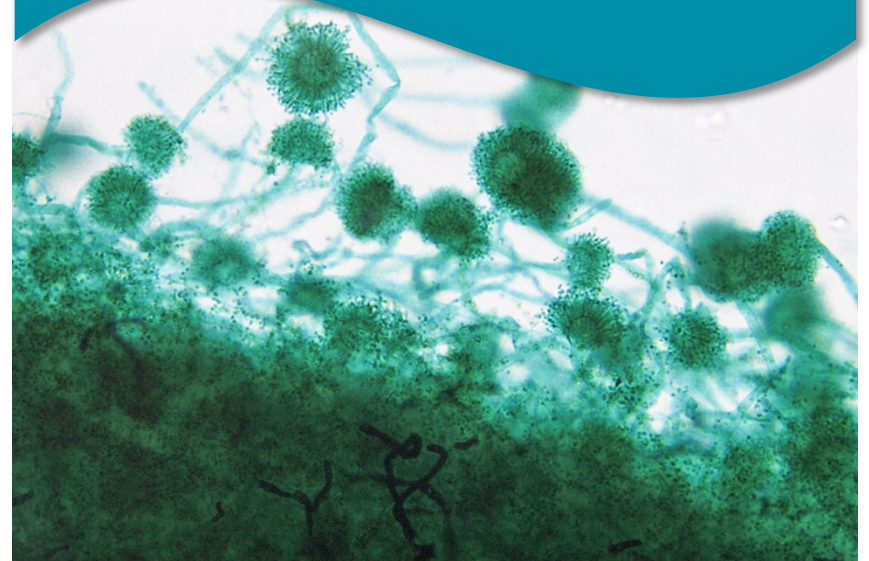
- How are states addressing excessive dampness and mold through law and policy?
- What facilitates law and policy having the intended impact?
- What is the nexus of indoor air quality, climate resilience, and energy efficiency efforts?

# Mold and Dampness

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- Exposure to indoor dampness and mold is associated with numerous adverse respiratory conditions, including asthma.
- Currently, there are no federal health-based exposure limits for mold.
- The conditions that support excessive dampness and mold are known and preventable.
- Law and policy can help control these conditions, saving money and improving public health.

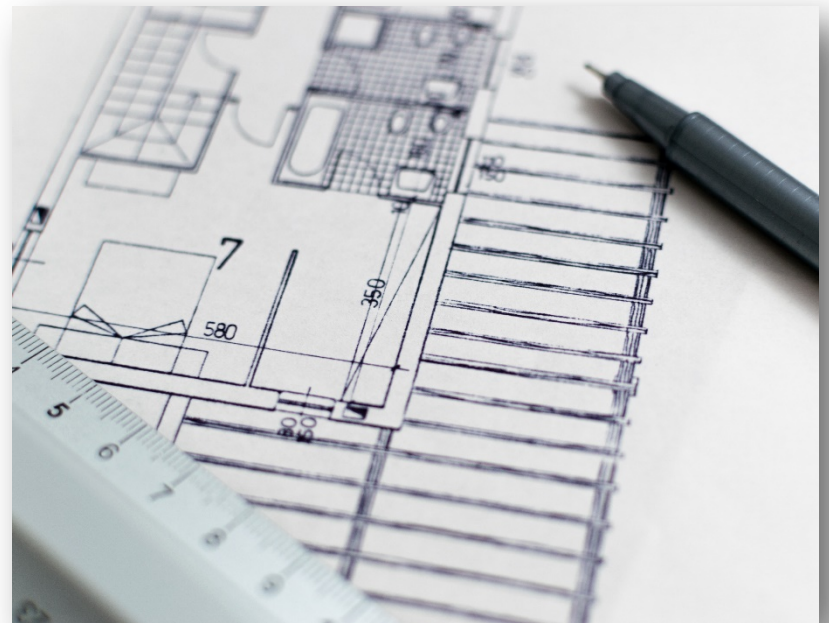
**Asthma attributable to exposure to dampness and mold = ~\$3.5 billion annually**



# Policy Change Opportunities

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- Building design, construction, operation, maintenance, and occupant behavior.
- Habitability laws -> property owner must provide a safe and livable home.
  - Rarely mention mold or dampness specifically.
- Code enforcement officials need to recognize mold *and* its causes.
- Contractors may not know how to correctly address the root causes of mold growth.



# Approach



## Literature review

- Environmental Law Institute's Database of State Indoor Air Quality Laws
- The National Conference of State Legislatures' database on Environmental Health Legislation
- Individual state legislature Web sites.

# State and Local Policy Options to Reduce Indoor Dampness and Mold

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1. Adopt building codes that curb excess dampness
2. Specify the presence of mold and the sources of mold as conditions for mitigation
3. Enact mandatory regulatory programs or standards for remediation contractors
4. Provide disclosure of the presence of mold upon sale or rental of property
5. Commission experts to study evidence-based and contextually relevant mold concerns and propose solutions



# 1. Adopt building codes that curb excess dampness

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- Building codes regulate the building's physical structure and support healthful conditions for building occupants.
- Interrelated and each addresses a specific building system or attribute, such as ventilation, drainage, or weatherproofing elements.
- **Maine:** Established building codes to prevent water intrusion.
- **NYC:** Requires use of mold-resistant building materials.

## 2. Specify the presence of mold and the sources of mold as conditions for mitigation

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- Define mold, dampness, or the underlying conditions that lead to indoor mold growth as unacceptable.
- Fosters consistency, accountability, and effectiveness.
- **California:** Designated mold as a substandard housing condition.
- **Massachusetts:** Included dampness in health and safety codes.

“the regular and/or periodic appearance of moisture, water, mold or fungi”



### 3. Enact mandatory regulatory programs or standards for remediation contractors

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- Regulatory programs have included licensure, certification, or registration of mold remediation contractors.
- Remediation standards can protect contractors *and* occupants.
- **Texas:** Established comprehensive rules for the regulated community.
- **New York:** Licensed mold contractors.

## 4. Provide disclosure of the presence of mold upon sale or rental of property

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- Vary widely by state, with some placing responsibility on either the seller or the landlord.
- **Montana, New Jersey, Ohio:** Sellers must make potential buyers aware of preexisting mold or moisture problems.
- **Virginia, District of Columbia, Washington State:** Landlords must alert potential renters to preexisting mold problems or provide information/educational material about mold to tenants.

# Getting to Impact

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- Be clear and specific.
- Invite stakeholder input.
- Evaluate for effectiveness.
- Couple indoor air quality with climate resilience and energy efficiency efforts.

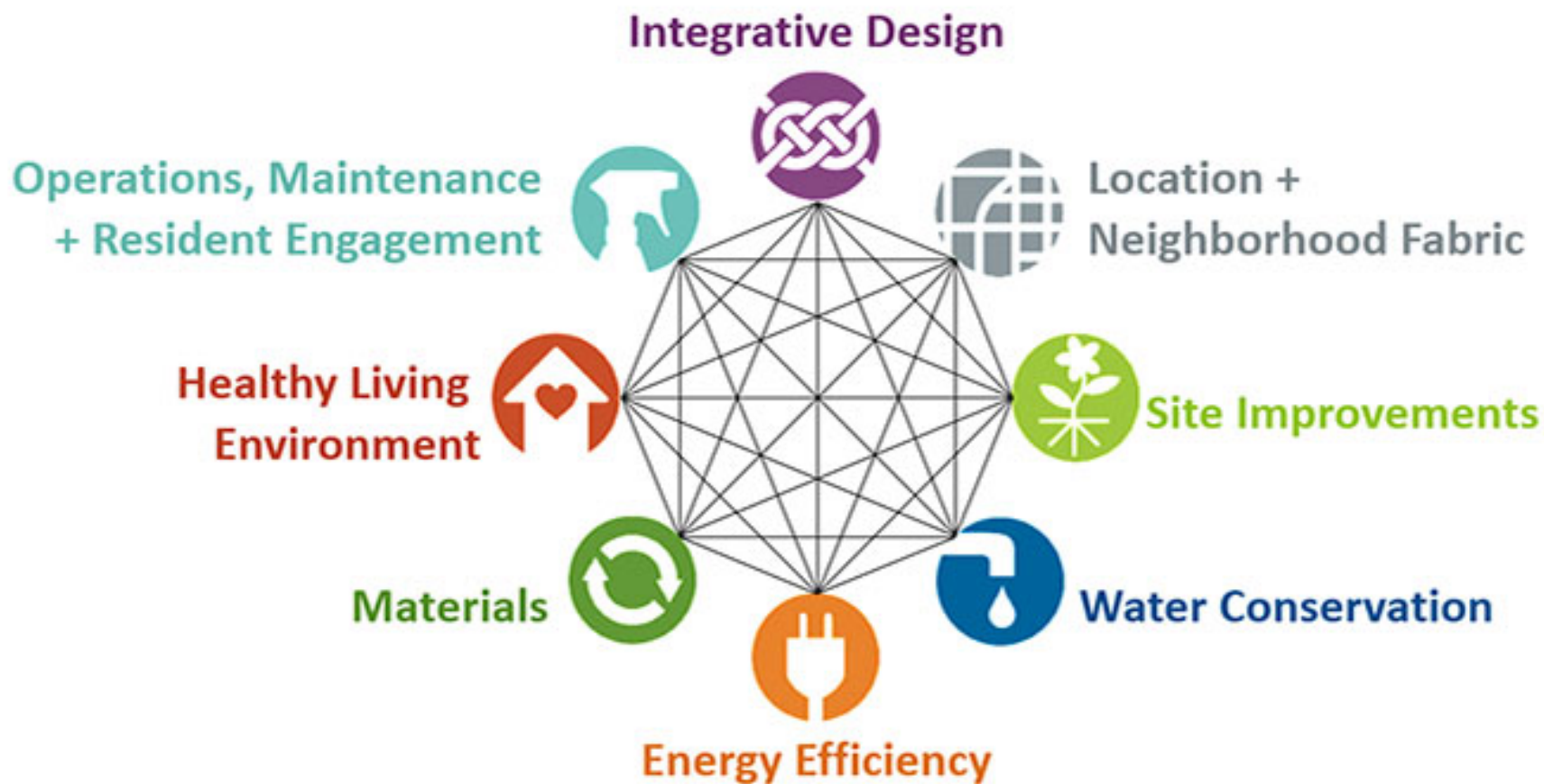
# Couple indoor air quality with climate resilience and energy efficiency efforts

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- Adopt commercial and residential building energy codes that also take into account moisture management.
- Bring together health advocates and energy efficiency practitioners to collaborate on policy actions.
- Integrate housing affordability with resilient design and indoor air quality.

# Enterprise Green Communities

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# THANK YOU

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Thanks to co-authors Jennifer Major & Jerry Boese