



Environmental and Health Effects of Energy Efficiency

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EE and Health Benefits

(3 areas of focus)

Outdoor air quality

- Societal benefits e.g., reduced emissions from power plants (SO_x , NO_x , PM, ozone) → improved public health and reduced medical costs

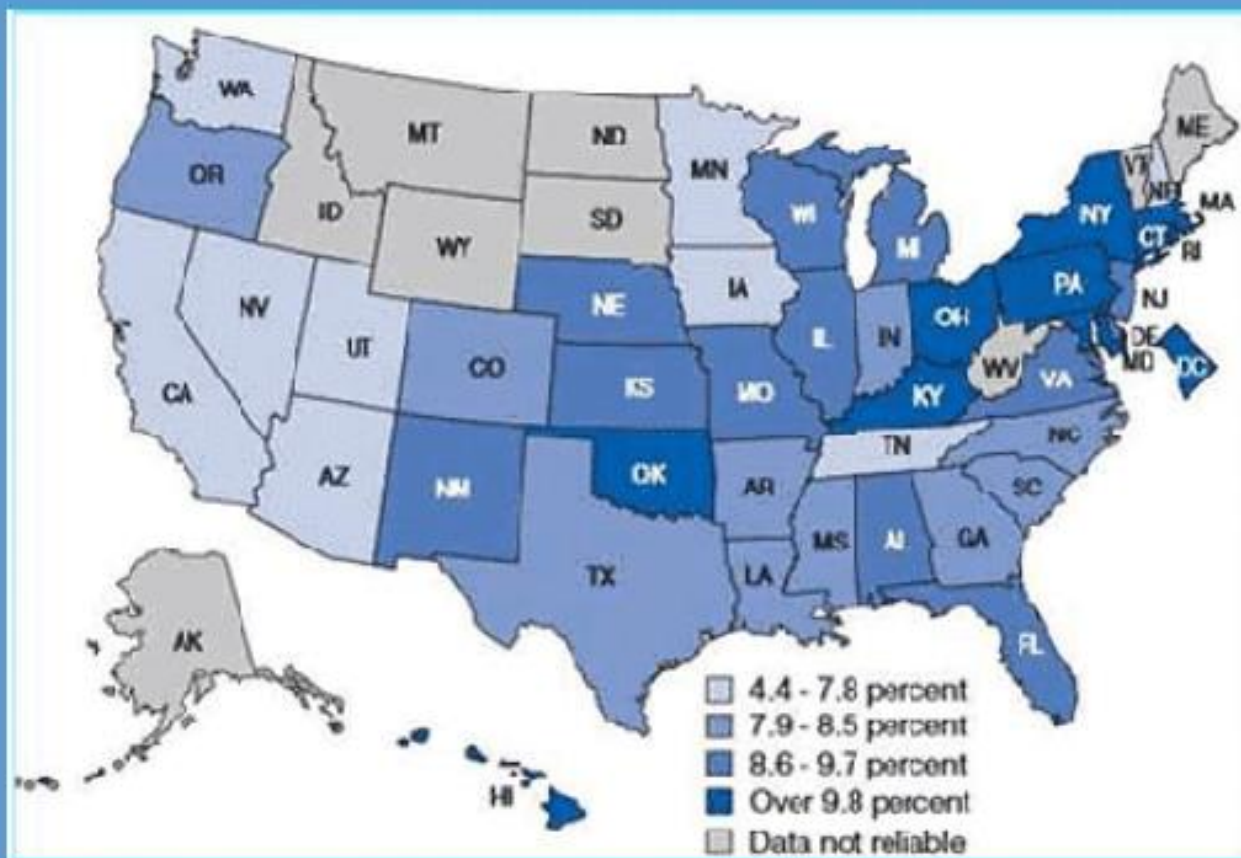
Climate Change

- Societal benefits e.g., reduced extreme weather → reduced insurance costs for all

Indoor air quality

- Occupant benefits due to improved indoor environment - Societal benefits - reduced costs to hospitals → reduced insurance costs for all

Asthma Prevalence Intensity in Children (0-17)



What Does Asthma Cost the US?

Yearly asthma costs = \$56 billion

Direct costs = \$50 billion (primarily hospital stays)
or about \$3,300 per person / year

Indirect costs = \$6 billion (e.g., lost pay due to
sickness, reduced work output)

Asthma Allergy Foundation of America – May 2015

Health + EE Programs and Increasing Cost-Effectiveness

Incorporating health impacts as non-energy benefit helps to *increase* EE program cost-effectiveness

Leveraging funding across health and EE industries can help to increase program cost-effectiveness

$$\frac{\text{BENEFITS} \uparrow}{\text{COSTS}}$$

$$\frac{\text{BENEFITS}}{\text{COSTS} \downarrow}$$



To get us started... Doctor Riddles

At age 50 you should see me,
Though you probably hesitated,
But if indeed I do find something,
You'll be glad you hadn't waited.

I am an ...

My counterparts can check your vision,
And check for a blind spot,
But I can perform surgeries,
Which is something they cannot.

I am an ...