Healthy Homes and Communities In Seattle

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National Health Homes Policy Summit

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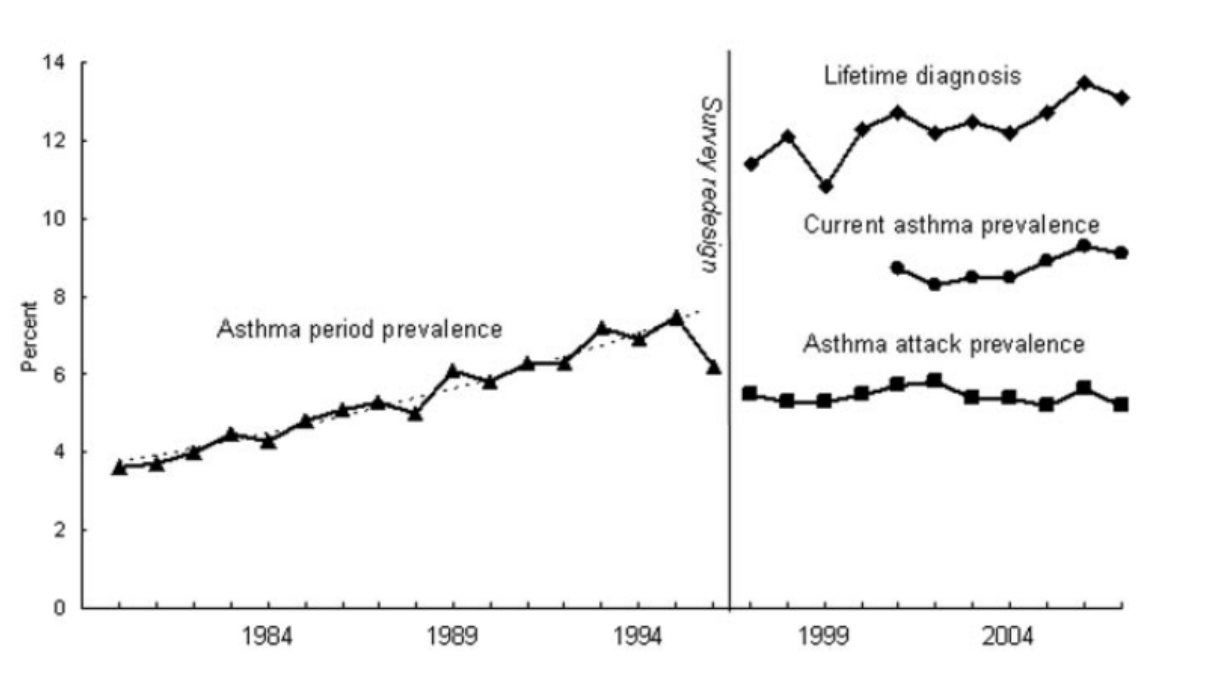
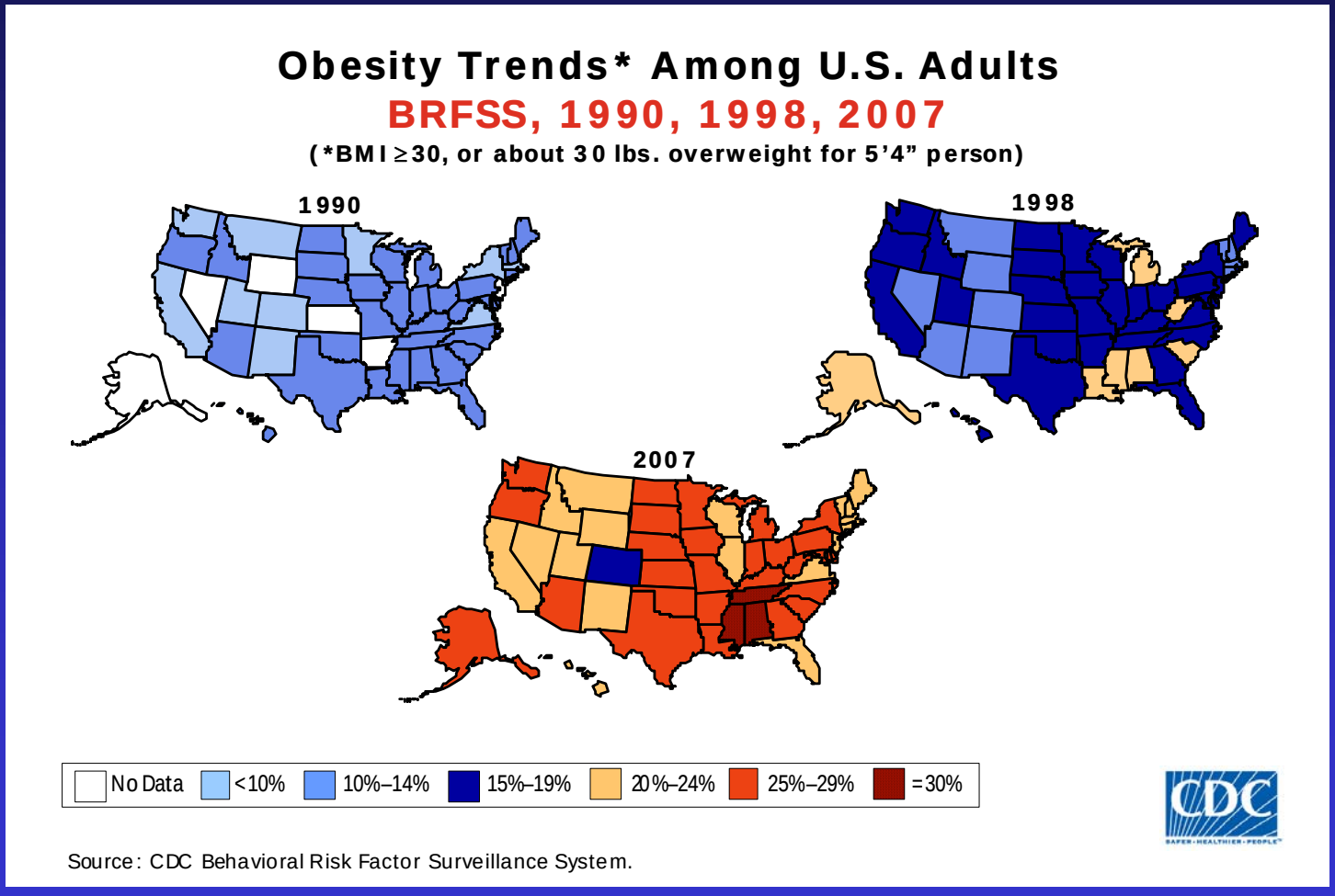
Public Health
Seattle & King County

Asthma Prevalence Remains High



Akinbami, *Pediatrics* 2009;123:S131–S145

Obesity Is Increasing



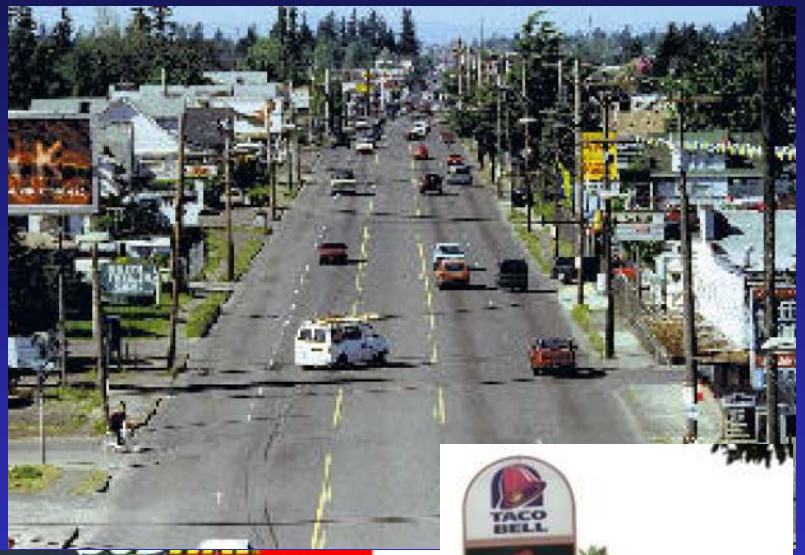
Example:
Asthma and Housing

- Indoor asthma triggers increase asthma morbidity.
- Substandard housing increases exposure to asthma triggers.
  - Excessive moisture and water damage (mites, mold, roaches)
  - Breaks in walls (roaches and rodents can enter)
  - Poor ventilation (higher allergen and tobacco smoke levels)
  - Deteriorated carpeting (reservoir for triggers)
  - Off-gassing products (lung irritants)
- Resident behaviors also affect housing conditions.
  - Cleaning
  - Hazardous household products
  - Smoking
  - Pets

Mold due to leaky roof

Community Environment and Obesity

- No place to walk or bike
- Lots of unhealthy food options
- Limited access to healthy foods



Healthy Homes

Seattle-King County

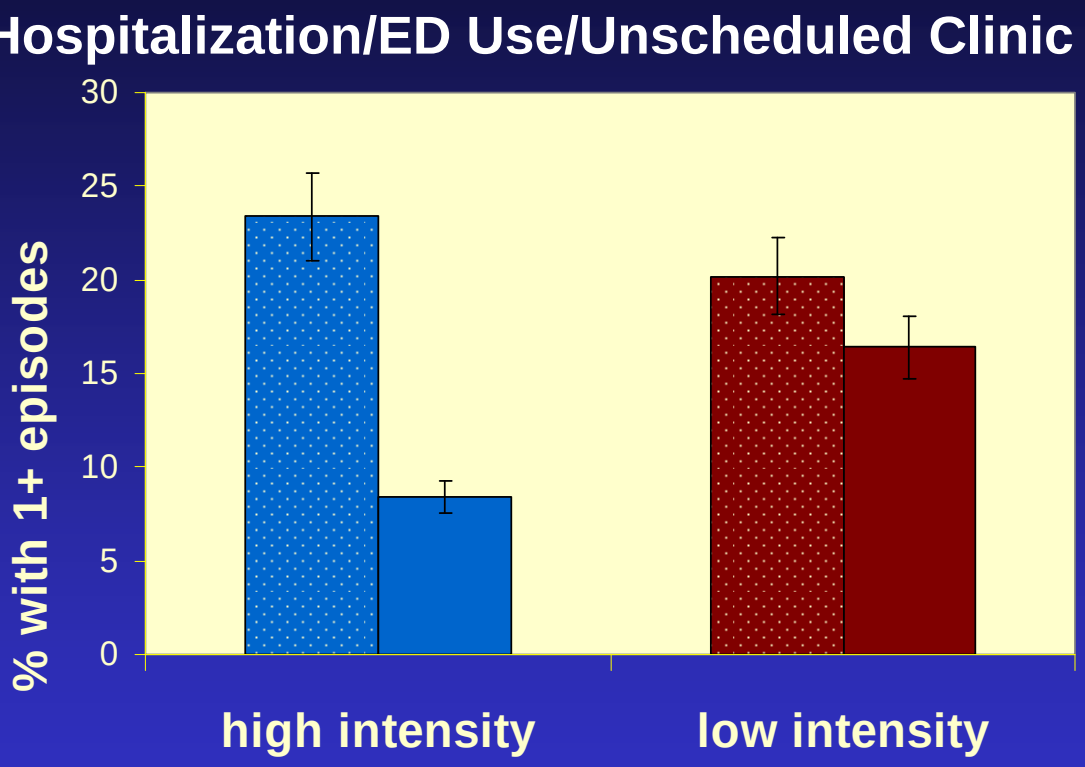
Healthy Homes Project

HEALTHY HOMES-II ASTHMA PROJECT · KING COUNTY ASTHMA FORUM ·

Community Health Worker Home Visits

- Assess exposure to triggers and self-management behaviors
- Teach and model self-management and trigger reduction skills
- Provide social support
- Offer advocacy/referral (housing, food, furniture, jobs, etc.)
- Promote use of primary care
- CHWs from participating communities, receive rigorous training, personal experience with asthma

Healthy Homes Outcomes



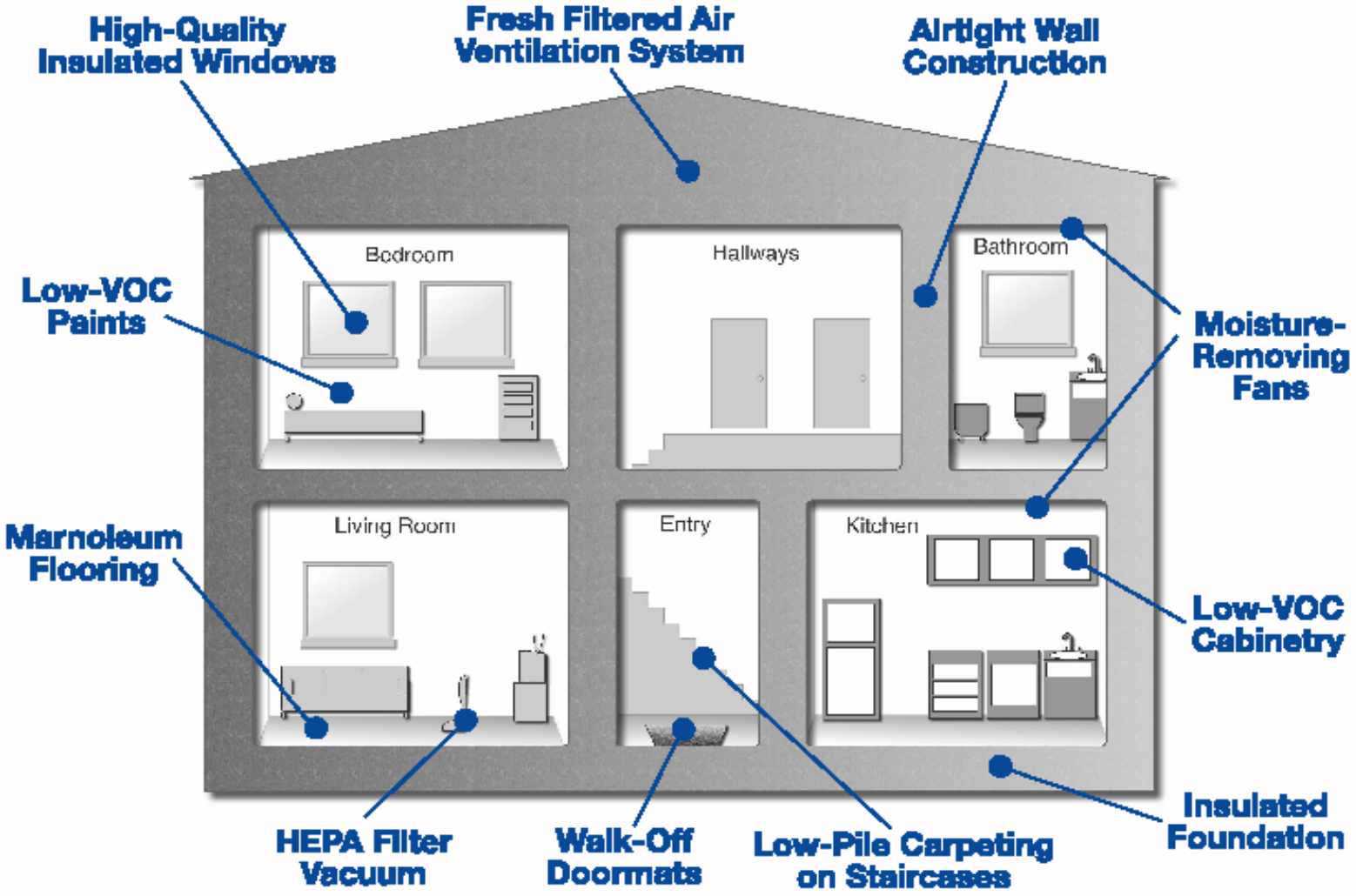
- Symptoms decease by 1 day/2 weeks or about 26 days per year
- Urgent health care use decreases 40-70%
- Quality of Life measures improve

High Point Overview

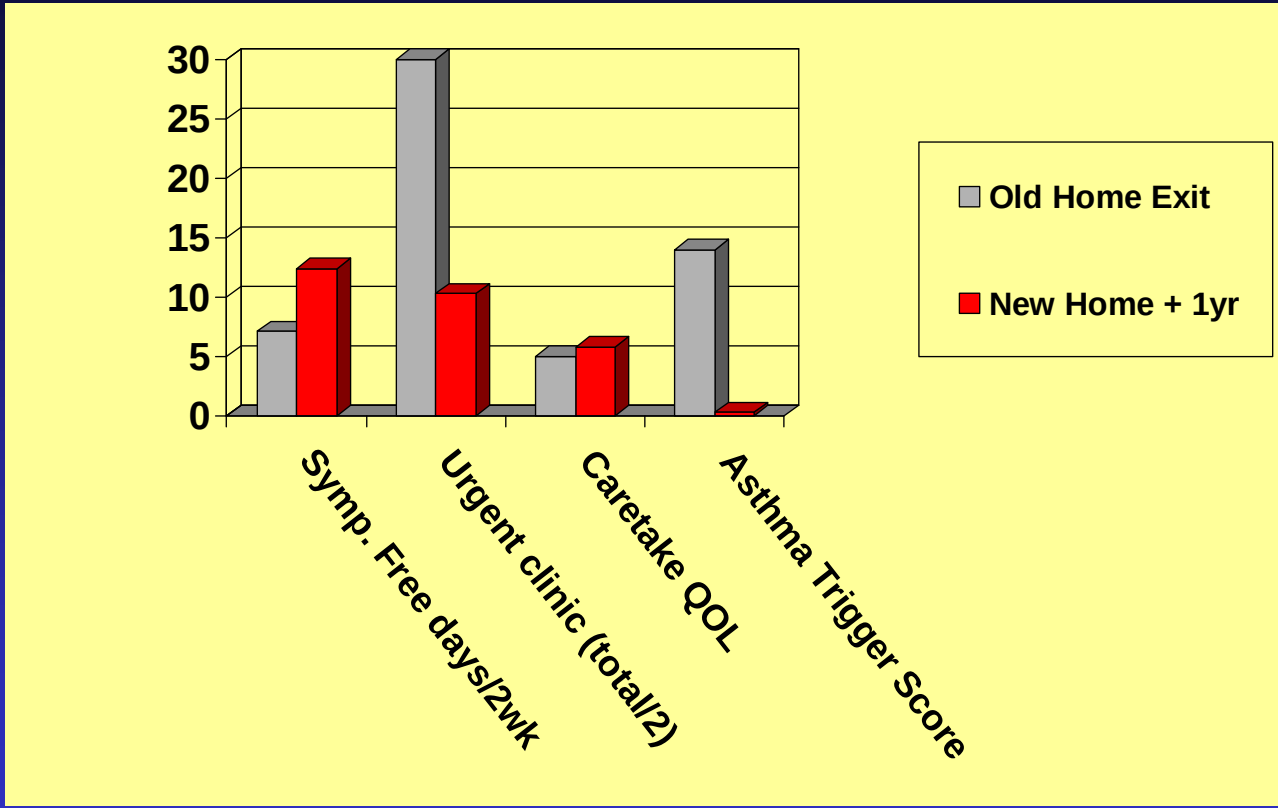
High Point, 2004
Residents reported water damage, condensation, mold and mildew, pests (mice or rats) crime and lack of pedestrian safety

High Point, 2006
Guided by principles of New Urbanism with mixed income housing built with "BuildGreenTM" materials

Breathe Easy Homes

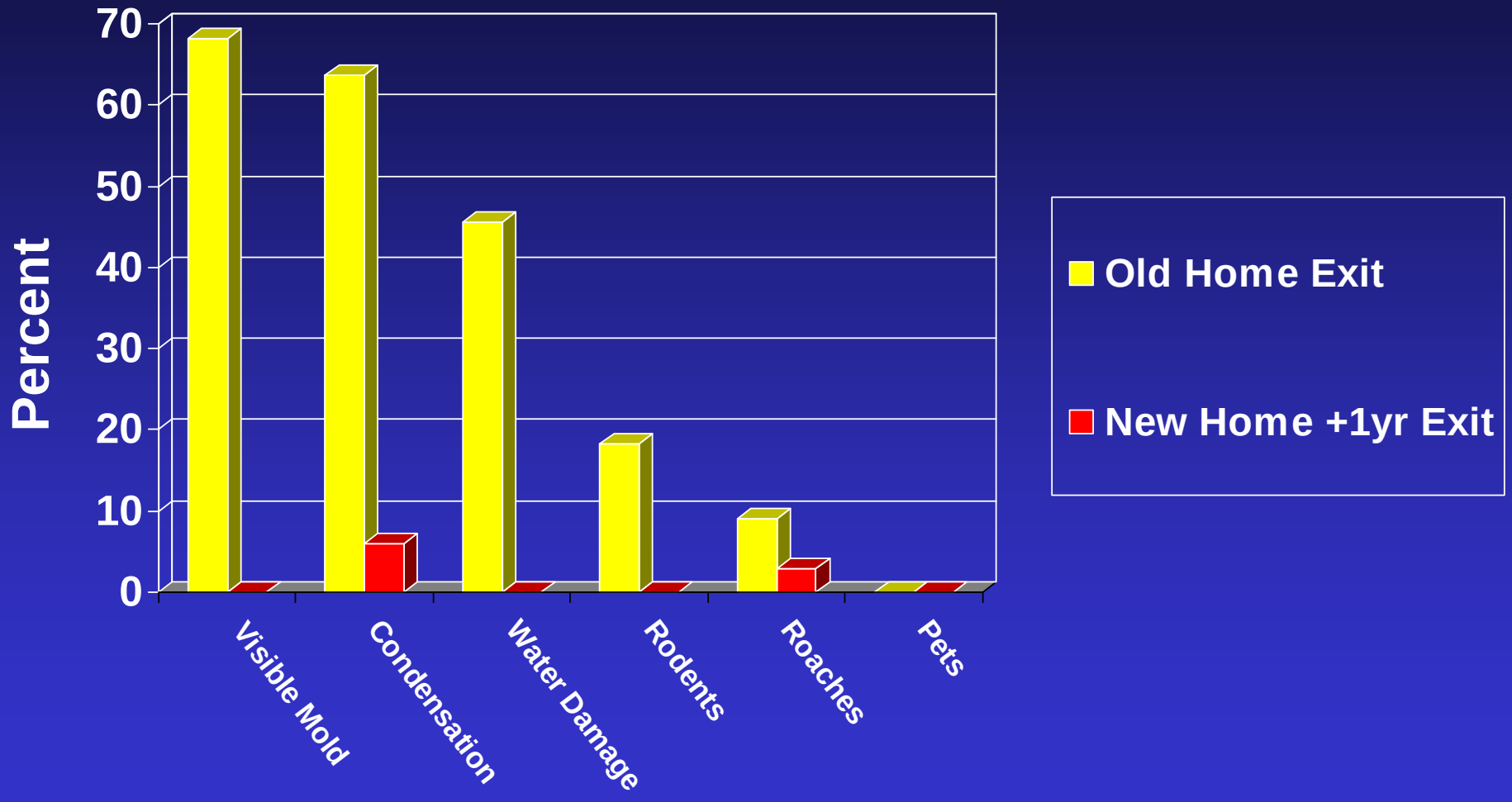

High-Quality Insulated Windows
Fresh Filtered Air Ventilation System
Airtight Wall Construction
Low-VOC Paints
Moisture-Removing Fans
Marmoleum Flooring
Low-VOC Cabinetry
HEPA Filter Vacuum
Walk-Off Doormats
Low-Pile Carpeting on Staircases
Insulated Foundation
Bedroom
Hallways
Bathroom
Living Room
Entry
Kitchen
HIGH POINT BREATHE EASY HOMES

Clinical Outcomes



- Symptoms decease by 5 days/2 weeks
- Urgent health care use decreases 67%
- Quality of Life measures improve

Asthma Triggers



Building Healthier Communities

8 year old resident's image of a healthy community

A Healthy Physical Environment

- Walkable streets
- Network of open spaces and trails
- Spaces for social interaction
- Tobacco-free units and zones
- Community gardens
- Access to transit
- Low-allergen landscaping
- Greenbelt and wetland sustenance
- Watershed protection

Old High Point Street

New High Point Street

Note separation between cars and pedestrians, plantings, porch on street

A Healthy Food Environment

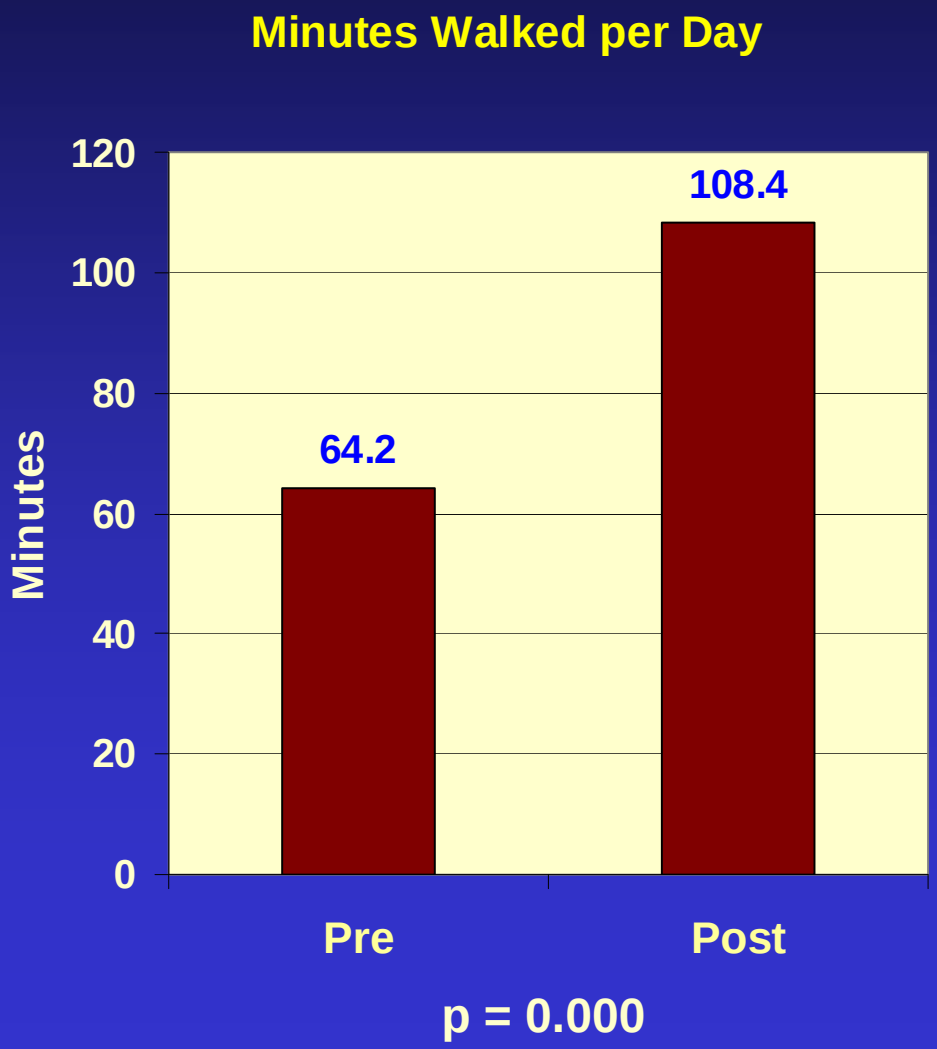
- Community Garden
- CSA?
- Farmers Market?
- Community Kitchen
- Commercial Kitchen?
- Food events

A Healthy Social Environment

- Making Healthy Home visits to neighbors
- Cleaning staircase to link walking trails
- Building social cohesion
- Organizing walking groups
- Developing walking maps
- Organizing for pedestrian safety

Walking Groups

Walking Groups



Community Action Team
Building community capacity

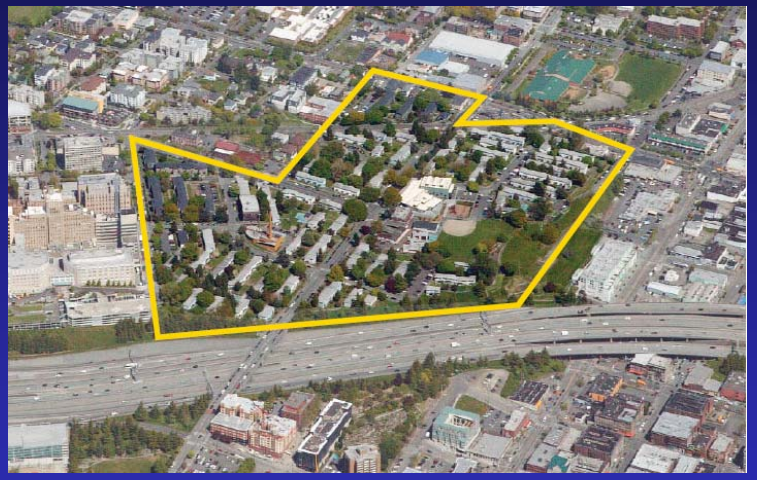
Diverse community includes youth and seniors, immigrants and refugees who speak English, Spanish, Vietnamese, Cambodian, Somali, & Amharic

Improving Pedestrian Safety

- Community Action Teams identified community concerns.
- Four community forums and a street rally voiced concerns to government officials.
- Community victories:
  - School bus stop was changed to avoid arterial
  - Student Crossing Signage and Crosswalk installed
  - Pedestrian crossing time at a walk light lengthened
  - Full traffic light installed at busy intersection
  - Speed radar monitors installed

Yesler Terrace

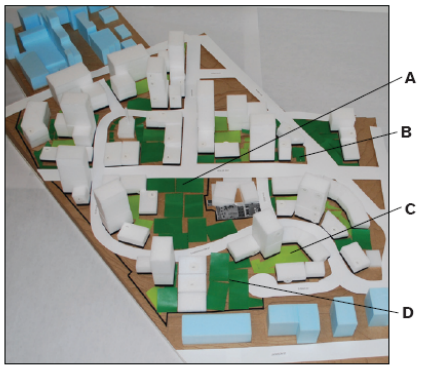
- Built in 1940 and now deteriorating
- 30 acres
- 561 units
- 1200 residents
- 90% people of color
- Near central business district



Yesler Terrace

Rebuilding Yesler Terrace

Open Space Configuration



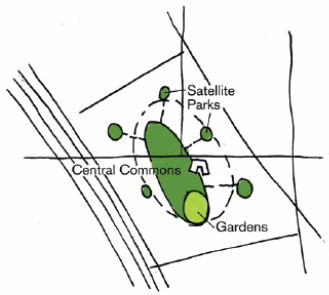


Diagram of Central Commons & Satellite Parks Open Space Configuration

- **Total Site Area** *(includes ROW & open space)*
  39.6 Acres
- **Housing**
  3,000 - 5,000 Total Units
- **Office**
  800,000 - 1.2 million sq. ft.
- **Retail**
  25,000 - 100,000 sq. ft.
- **Open Space**
  5 - 8 acres

Health Goals for Yesler Terrace

- Opportunity to Build Social Connections
- Access to Goods, Services and Employment
- Protection from Environmental Pollutants
- Safe Level of Community Noise
- Protected Natural Environment
- Healthy Indoor Environments
- Access to Parks and Green Spaces
- Diverse Food Systems
- Environment Supporting Physical Activity

Strategy #4: Air Quality

Reduce and mitigate the impacts of air pollution to promote healthy respiratory function

Example

- **Minimize vehicle exhaust exposure.**
- **Assure good indoor ventilation.**

Strategy #9: Healthy Food

Provide access to a diversity of healthy food choices to the area

Example:

- **Provide space for community gardens.**
- **Provide space for market(s) (e.g. grocer, supermarket, produce store) on site.**

Strategy #10: Reduce Vehicle Dependence/Increase Walking and Biking

Reduce use of private vehicles and vehicle miles traveled and promote alternative choices

Example:

- **Promote public transit use**
- **Build walking trails and calm traffic**

Conclusions

- The built environment – housing and community design – affect health
- There is sufficient evidence to guide design of healthy housing and communities
- Much existing housing and community design does not meet guidelines for promoting health
- Two strategies should be pursued to make housing and communities healthier:
  - Build new homes and communities to be healthy by design
  - Remediate existing homes and communities as possible

Collaborators and Funders

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Outcome: Costs and Savings

- Program costs per client
  - High Intensity: $1345
  - Low intensity: $222
- Urgent medical care savings per client (12 months)
  - High intensity: $1205 - 2001
  - Low intensity: $1050 - 1786
- High vs. Low Intensity projected over 4 years
  - Marginal cost of high: $1127
  - Marginal savings in urgent medical care: $1316-1849
- Cost of fluticasone 220 ug: $1392/year

The Health Advisory Group

- SHA commitment to building a healthy community
- Members
  - AHBL
  - Feet First
  - Harborview Medical Center
  - Neighborhood House
  - Public Health – Seattle & King County
  - Puget Sound Clean Air Agency
  - University of Washington
  - Seattle Housing Authority