

**High
Point**

Healthy Homes and Community
sức khỏe trông nhà và cộng đồng

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Breathe Easy Homes at High Point: The ultimate indoor asthma trigger reduction strategy?

Tim Takaro, MD, MPH, MS.

**Simon Fraser University
Faculty of Health Sciences**

Team and Collaborators

Co-Principal Investigator

Jim Krieger, MD, MPH

Neighborhood House Team

Monica Chang, Sokunthea Ok, Denise Sharify, Catherine Verrenti

Seattle Housing Authority

Tom Phillips, Andrew Daugherty, Willard Brown

Seattle King County Public Health

Carol Allen, Lin Song PhD

Univ. of Washington

Nancy Beaudet CIH, DEOHS Laboratory Team

High Point Healthy Homes and Community Steering Committee

Primary funding:, U.S. Housing and Urban Development

Seattle Healthy Homes Asthma Intervention Spectrum

Healthy
Homes I
1997-2001

Community Health Worker – Low intensity group
Community Health Worker – High intensity group

Healthy
Homes II
2001-2005

Clinic Asthma Nurse
Clinic Asthma Nurse + Community Health Worker

Better Homes
for Asthma
2002-2006

Community Health Worker
Community Health Worker + Home Repair

Breathe Easy
Homes
2003-2007

Community Health Worker
Community Health Worker + New Healthy Housing

Healthy Communities/Healthy Homes: High Point

- Redevelop 1600 units under HUD's Hope VI project
- Asthma study included in demonstration of specially designed 'Breath Easy' units
- 35 'Breath Easy' units Phase I, 25 Phase II
- Assess impact of new housing
 - general health status
 - asthma-related health status



Evaluation for Breath Easy Home Families

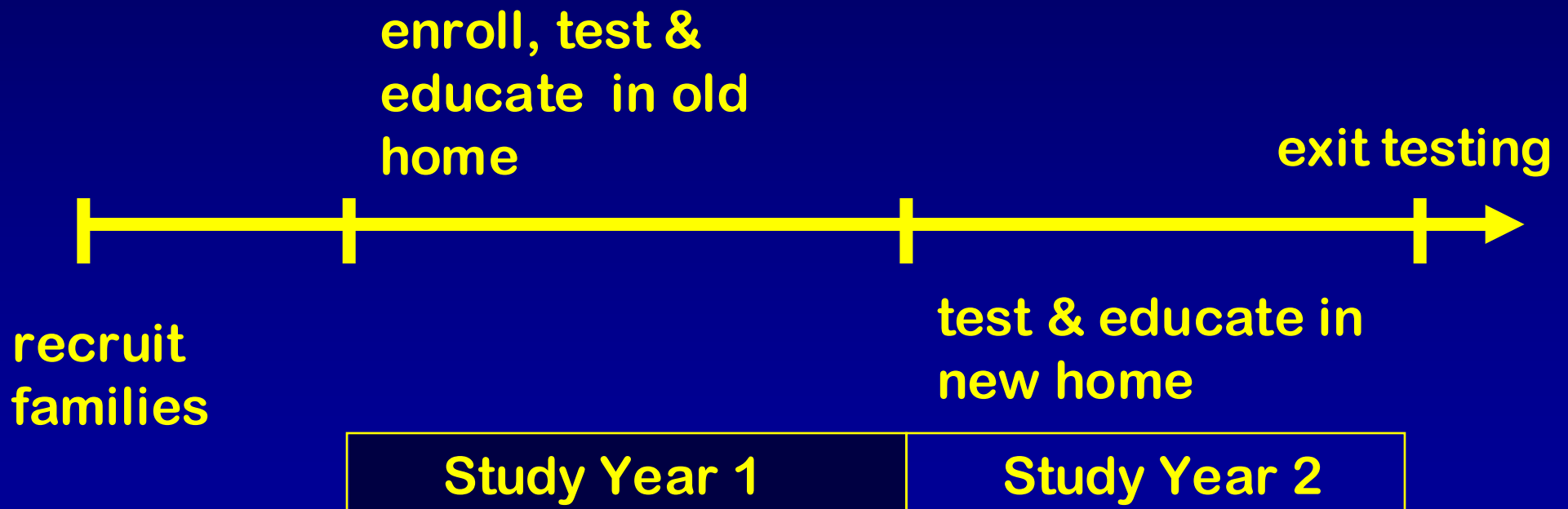
Pre-Post outcome assessment design

- Cases evaluated over 1 yr. prior to move with Community Health Worker (CHW) intervention.
- 35% of cases enrolled just prior to move to new home
- Cases evaluated over 1 yr. in new units and had 2-3 additional home educational visits by CHW

Outcome Measures

- changes in asthma-related health outcomes, FEV1 & FVC, methacholine challenge
- changes in home environment
- changes in participant behaviors and knowledge

Breathe Easy Home Study *Timeline for Families*



Community Health Worker Home Visits

- Make 5-9 visits over one year (high intensity) or 1 visit (low intensity).
- Assess home environment and develop Action Plan to reduce exposure to moisture, ETS, mites, mold, pets, roaches.
- Offer client education and encourage behaviors to implement plan (e.g. dust control, ventilation, tobacco).
- Review progress in implementing Action Plan at each visit.

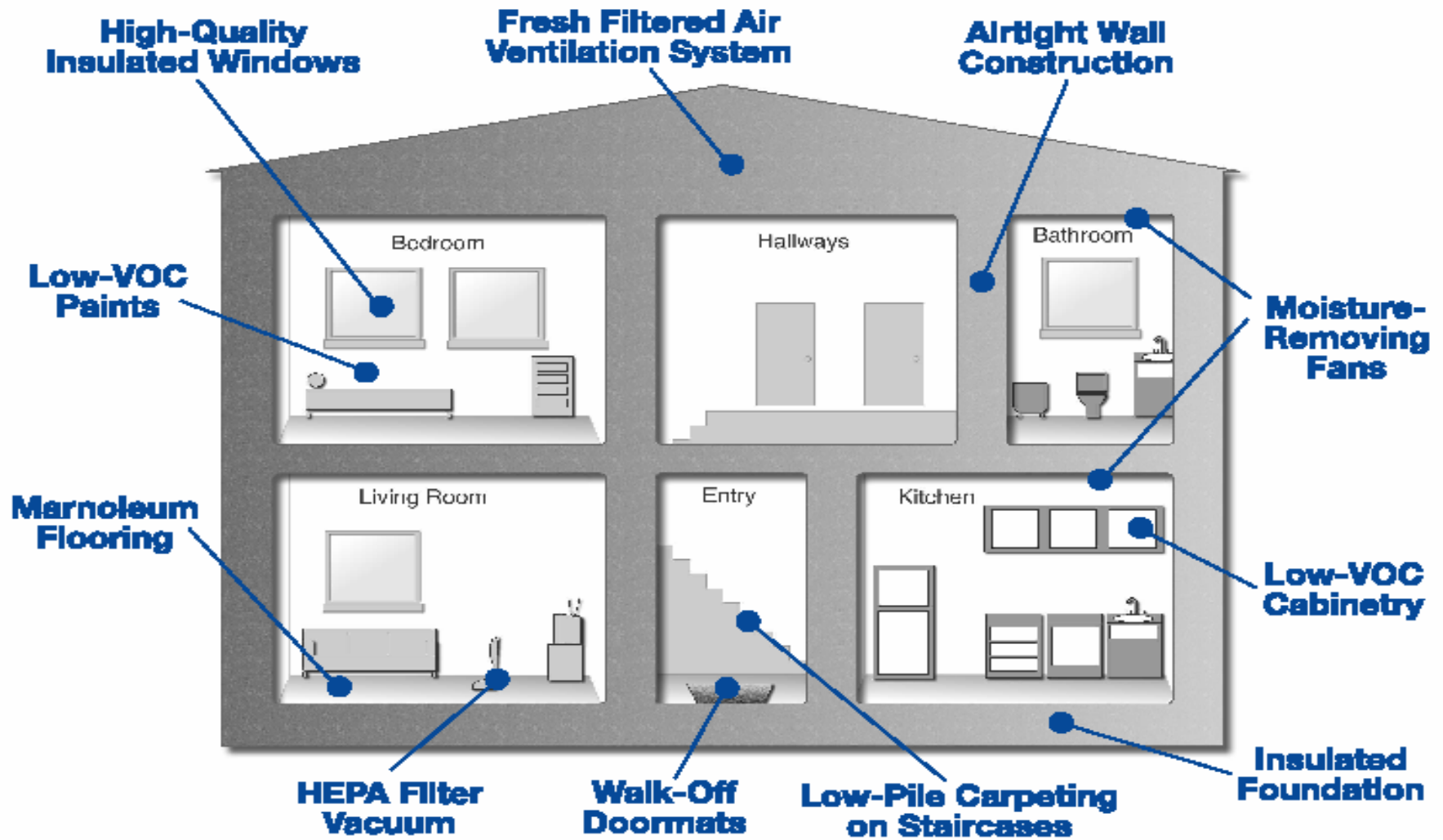


Putting on a mattress cover

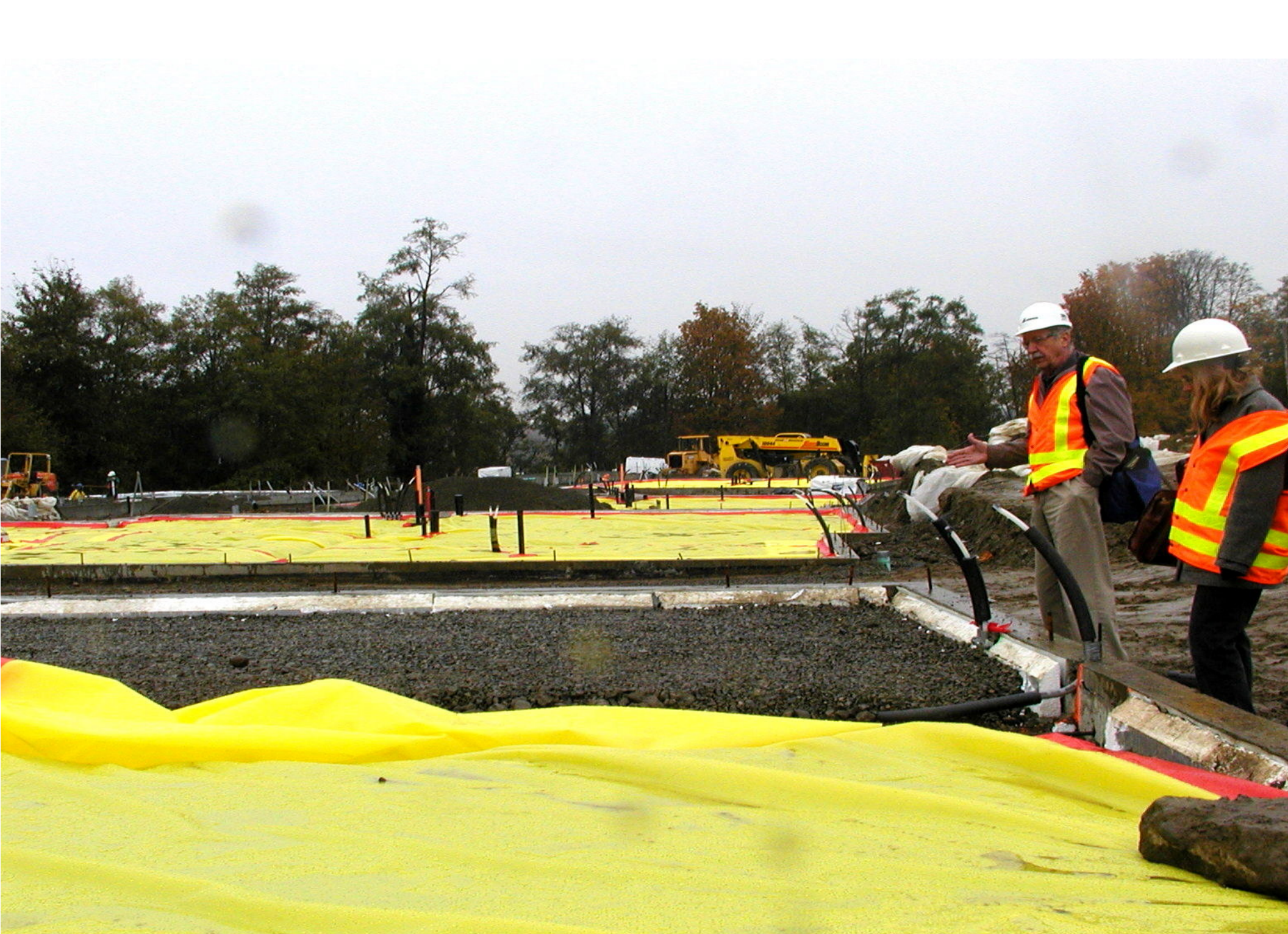
Trigger Control Resources Provided Year 1

- Allergy control bedding covers
- Low-emission vacuum cleaner with dirt finder sensor
- 1-Year supply of microfiltration vacuum bags
- Commercial doormat
- Cleaning supplies (green kit, mop, pail, scrub brushes, bleach)





HIGH POINT BREATHE EASY HOMES















ABSOLUTELY
ABSOLUTELY

NO SMOKING

BREATH EASY CONSTRUCTION











Ventilation Switch



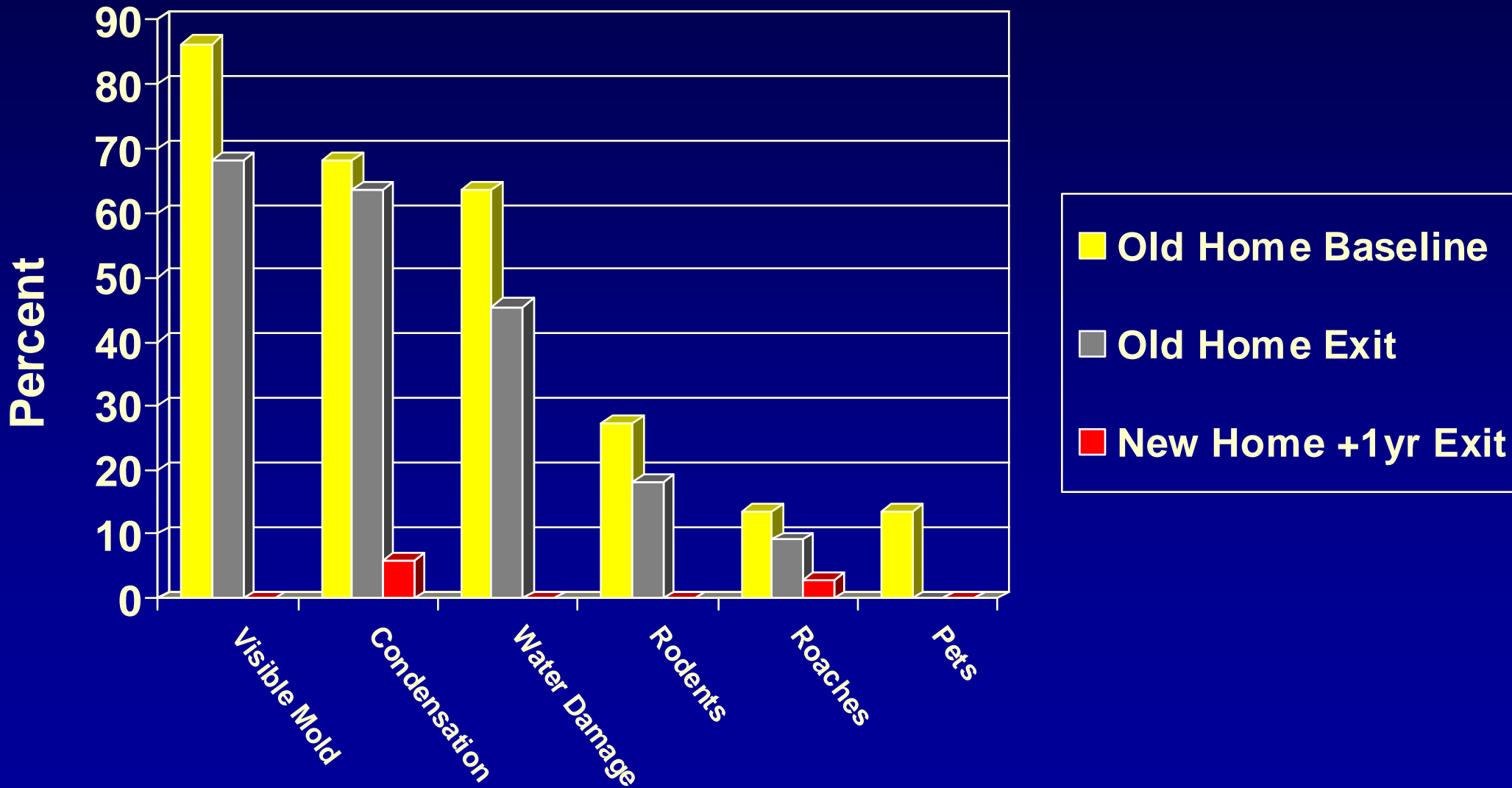


Breath Easy Home Study – *Subject Characteristics*

Sex	68.6% Male	31.4% Female				
Language	45.7% English	28.6% Vietnamese	11.4 % Spanish	14.3% Other		
Ethnicity	32.4% Vietnamese	29.4 % Afro-American	14.7% Hispanic	11.8% Asian/ Pac. Isl	2.9% Am. Ind. / AK. Native	2.9% Cauc
Parent Education	30.0% No High School	10.0% Some High School	35% High School Equivalent	20.0 % Some College	5% College Graduate	
Parent Employment.	47.1% Employed	20.6% Out of Work	14.7% Homemaker	17.6% Other		
Baseline Asthma Severity n=22*	10% Mild Intermittent	45 % Mild Persistent	30 % Moderate Persistent	15 % Severe Persistent		
Exit Asthma Severity n= 34*	40 % Mild Intermittent	34 % Mild Persistent	23 % Moderate Persistent	3 % Severe Persistent		

* upon exit1 (old home) 34 families were enrolled, only 22 had old home baseline

Breath Easy Home Study – *Baseline Old Home Environmental Measures*



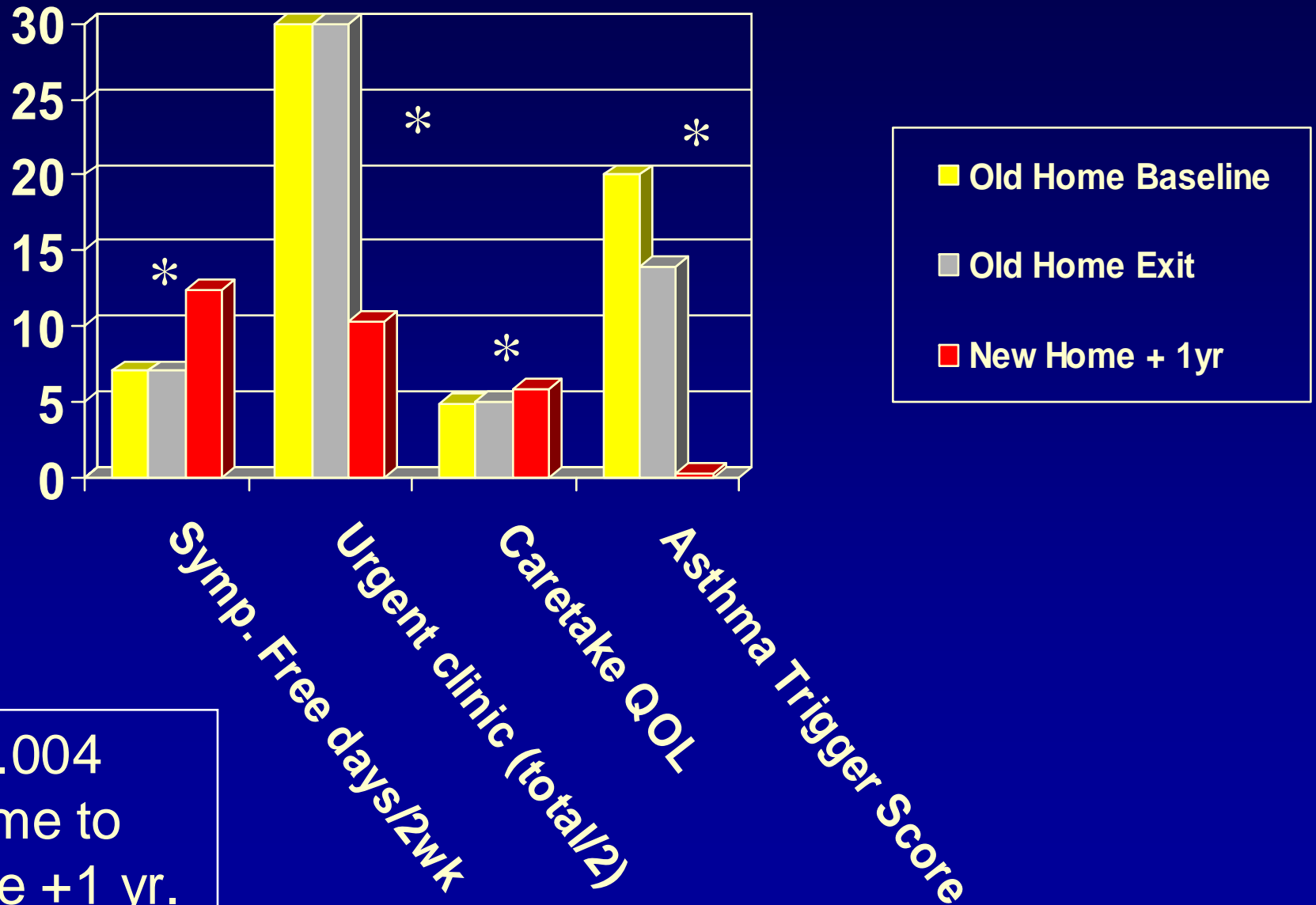
Breath Easy Home Study – Preliminary Results (1)

Endpoints	Old Home				New Home	home Δ	
	Base n=22	Exit1* n=22	Δ	p		Δ	p
Symptom-free days/2 wks	7.0	7.1	0.1	.964	12.4	4.8	.004
Caretakers quality of life	4.9	5.0	0.1	.810	5.8	0.8	.002
Urgent clinical care (%)	60.0	60.0	0	1.00	20.6	-41.2	.002
Asthma trigger exposure ^t	2.0	1.4	-0.6	.016	.03	-1.33	.000

* upon exit1 (old home) 35 families were enrolled, only 22 had old home baseline

^t presence of rodent, roach, pet, mould or moisture

Breath Easy Home Study – Preliminary Results



Breath Easy Home Study – *Limitations*

- **Necessity of Pre-Post Design limits the ability to interpret the relationship between trigger reduction and clinical response**
- **Rolling Enrollment and dropouts in year-one led to full year assessment of Community Health Worker (CHW) intervention in old home of 22/34 (65%)**
- **Though home environmental assessment not performed by CHW engaged in educational visits, assessor new status of subject**
- **Did not control for outdoor asthma triggers**

Seattle Healthy Homes Other Partners

King County Housing Authority

Healthy Buildings, Inc.

The King County Asthma Forum

Seattle Partners for Healthy Communities

Seattle Tenants Union

Group Health Cooperative of Puget Sound

Engineering Plus

Community clinics, hospitals and emergency departments

High Point Clinic

Rental Housing Association of Puget Sound

Hoover Vacuum Company

Seattle Solid Waste Utility

Horn of Africa Services

International District Housing Authority

Puget Sound Neighborhood Health Center

Centers for Disease Control and Nesholm Foundation

SafeFutures Youth Center

Simon Fraser University