

Housing and Health Connection: A Short Summary & Review of Existing Healthy Homes Trainings

**National Healthy Homes Training Center
and Network Meeting**

**Mount Washington Conference Center
January 21-23, 2004**



Focus on the Indoor Environment

- **It's where we spend our time:**
 - Children - up to 80%
 - Adults – up to 90%
- **Estimates of the direct impact of housing quality on human health vary.**





“The connection between health and the dwelling of the population is one of the most important that exists”.

Florence Nightingale

Cited in Lowry, S. BMJ, 1991, 303, 838-840

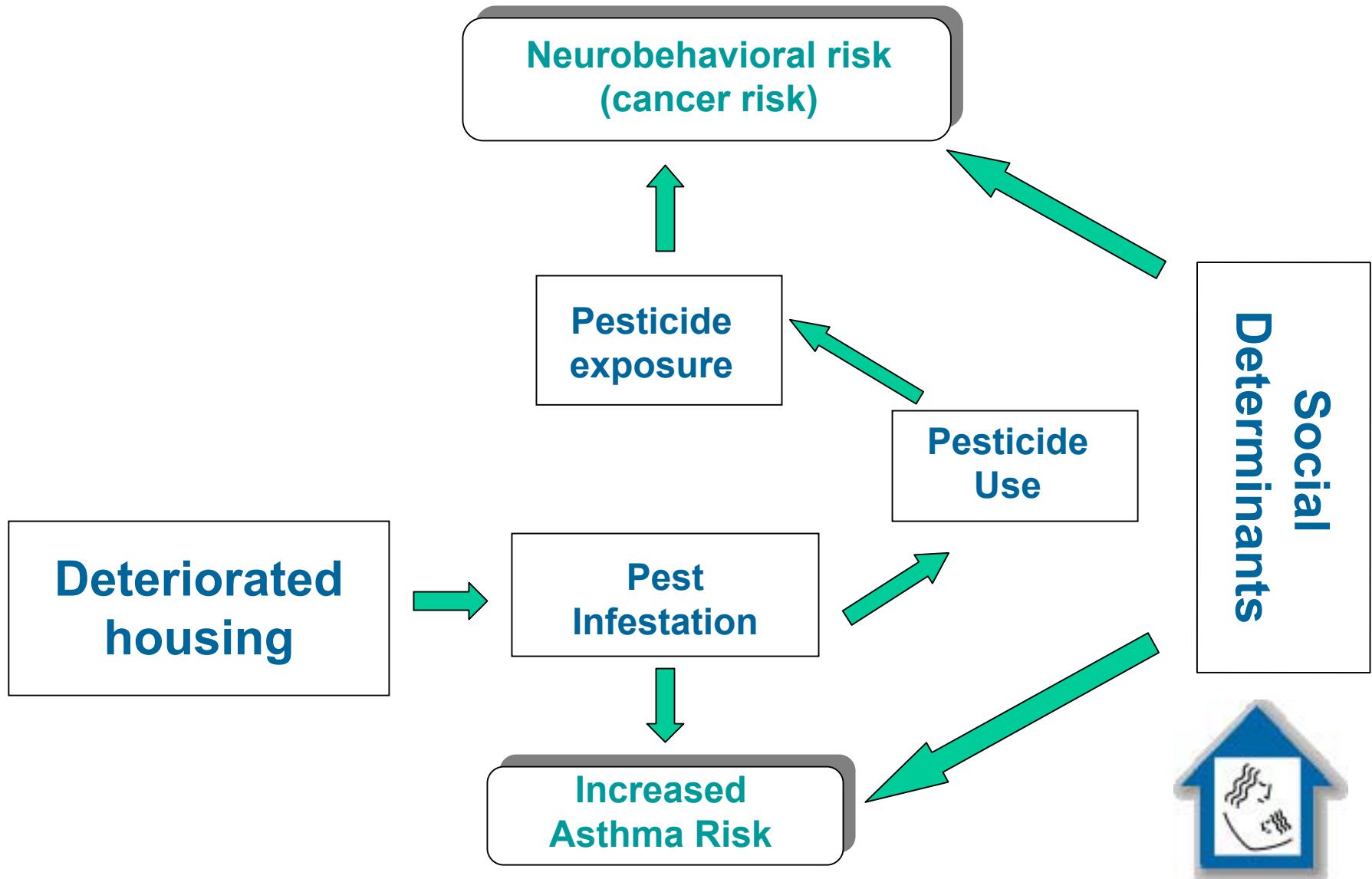


Current Understanding

- **Housing is under appreciated as a determinant of health.**
- **We need to understand the interaction among hazards.**
- **Intervention studies are needed.**



How do Hazards Interact?



What are the Health Effects of Mold?



Water, Moisture, Humidity, Leaks

- **Associated with many other vectors including:**
 - **Dust mites**
 - **Cockroaches**
 - **Domestic animals**
 - **Bacteria**
 - **viruses**



Combustion Leakage

- **Combustion appliances**
- **HVAC systems**
- **Nitrogen Dioxide and CO**
- **Strong link to asthma and respiratory symptoms**



Products Used in the Home

- **Pressed wood products, paints, solvents, adhesives**
- **Volatile organic compounds**
- **Associated with respiratory symptoms, rashes, allergies, cancers**



Radon

- **Soil gas entering homes through cracks, sumps, concrete slabs**
- **Cancer**
- **No differentiation between adults and children**



The real world is complex

- Exposures are not single-substance.
- How do different allergens interact to cause health effects?
- What are the most appropriate measures of exposure?



Need Better Exposure Assessment Tools

- Sampling Location
- Sampling Method
- Personal Exposure
- How can we take advantage of on-going program opportunities?



Which Interventions Work?

- Control of water
- Allergy Avoidance
- ETS Exposure Avoidance
- Pest Control
- Can we develop a comprehensive, home-based primary prevention strategy?



Social Behavioral Issues

- **What are the barriers to compliance ?**
- **How can we increase effectiveness of educational recommendations?**
- **What will make the difference for the long-term?**



Summary of Research Needs

- Evidence of the health effects of mold and moisture
- Studies of mixtures and combined effects
- Better exposure assessment tools
- Evaluations of the efficacy of interventions to reduce disease
- A better understanding of social behavioral issues



Implementation Issues

- **Prevention not reaction**
- **A combined public health-housing approach**
- **Attention to public sector infrastructure issues**
- **The private sector role**
- **Guidelines and training**



“Until effective standards for the domestic environment are devised, it is likely that children will continue to be employed as biological indicators of substandard housing.”

**Donald Barltrop
Am. J. Dis. Child 127:165-166 (1974)**

National Healthy Homes Training Center & Network

Overview of Existing Healthy Homes Trainings



Survey of Existing Trainings

- Questions focused on:
 - Names of existing trainings
 - Sponsors of the training
 - Target audience
 - Length of training
 - Pre-existing competencies
 - Topics of training
 - Goals of training



Types of Training Identified

- **University-based courses**
- **Public Health Agency Trainings**
- **Healthy Homes Partnership Projects**
- **Other types of Trainings**



University Based Trainings

– **University of California, Berkeley**

- Mold: Inspection, Assessment and Control

– **Eastern Kentucky University**

- EHS 460, Control of Housing Environments
- EHS 855 Emergency Preparedness and Shelter Environments

– **University of Georgia**

- EHS 3260 Shelter and Institutional Environmental Health



University-Based Courses

- **Target audience**
 - Symposiums - Contractors, consultants, industrial hygienists
 - Courses - Students in Public health
- **Length of trainings**
 - Symposiums - 3 days
 - Courses - 30 to 48 hours of classroom, 96 hours preparation
- **Focus**
 - Symposiums – inspection, assessment and control of molds
 - Courses - comprehensive, cover a wide range of healthy housing concepts



Public Health Agency Trainings

– **Boston Public Health Commission**

- Healthy Homes Training

– **Alameda County Lead Poisoning Prevention Program**

- Environmental Risk Factors Affecting a Healthy Home



Public Health Agency Trainings

- **Target audiences:**
 - Community health workers
 - Public health nurses, public health professionals, health educators, contractors, housing agency staff, outreach workers
- **Length of trainings - 3 hours**
- **Focus – Childhood Asthma and injuries**



Healthy Homes Partnerships

Alabama – Conducts 6 multi-county Healthy Home Environmental Conferences

Arkansas – Series of workshops on child safety “21st Century Families: Challenges and Opportunities”.

Connecticut – multi-topic workshops on Healthy Homes and Indoor Air Quality



Healthy Homes Partnerships

Georgia – “Help Yourself to a Healthy Home” seminars

Kentucky – Seminars on lead, household hazardous products, and pesticides

Louisiana – Healthy Home information is incorporated into “Safety First” and “Creating a Learning Environment” lessons



Healthy Homes Partnerships

Minnesota – Healthy Homes presentations to Head Start Program parents

Missouri – one day training on Health and Safety Issues in the Home

New Jersey – developed curriculum and handout sheet: Environmental Health in Childcare Facilities



Healthy Homes Partnerships

North Carolina – in-services on Healthy Homes for county educators

Rhode Island – incorporated Healthy Homes materials into the Rhode Island Home*A*Syst Program



Healthy Homes Partnerships

Texas – Train-the-Trainer sessions on Indoor Air Quality

Utah – Train-the-Trainer program for housing professionals

Virginia – Training that focused on childcare environments

Healthy Homes Partnerships

- **Target audiences**
 - Providers, parents, social workers, Health Department Staff
 - Volunteer organizations and general public
 - Teachers and childcare providers
- **Length of Training**
 - Seminars or series of seminars
- **Focus**
 - Lead, hazardous products, pesticides
 - Asthma
 - Disaster preparedness



Other Trainings

- **American Lung Association**
 - **Health House Project**
 - Target audience – Builders
 - Length of Training – 2 days
 - Focus – Construction issues that can help create healthier indoor environments



In Summary - 1

- Current trainings are quite diverse .
- Range of target audiences is wide.
- Length of trainings range from 3 hours to 2 days.
- Most trainings are not based on a set of pre-existing competencies.



In Summary - 2

- The goals vary but most attempt to provide basic education to the target audiences about Healthy Homes issue.
- Availability is unclear: some are done as a one time event and some may be continuing.

