Summary Table Evidence of Housing Intervention Effectiveness on Health

	Sufficient Evidence	Needs More Field Evaluation	Needs Formative Research	No Evidence or Ineffective
Interior Biological Agents (Toxins)	• Multi-faceted tailored asthma interventions • Integrated Pest Management (allergen reduction) • Moisture intrusion elimination	• Dehumidification • General & local exhaust ventilation (kitchens & baths) • Air cleaners (to reduce asthma) • Dry steam cleaning • Vacuuming	• Carpet treatments • Education only • One-time professional cleaning • Acaracides	• Bedding encasement alone • Sheet washing alone • Upholstery cleaning alone • Air cleaners releasing ozone
Interior Chemical Agents (Toxics)	• Radon air mitigation through active subslab depressurization • Integrated Pest Management (pesticide reduction) • Smoking bans • Lead hazard control	• Radon mitigation in drinking water • Portable HEPA air cleaners to reduce particulate • Attached garage sealing to limit VOC intrusion • Particulate control by envelope sealing	• Radon air mitigation using passive systems • Occupant compliance with residential smoking bans • Improved residential ventilation • VOC avoidance	• Portable HEPA air cleaners to reduce environmental tobacco smoke • Air cleaners using or releasing ozone
External Exposures (Drinking water & waste treatment)	• Voluntary drinking & wastewater treatment standards for small systems & private wells • Training for small system personnel • Guidelines for immuno-compromised individuals	• UV and other filtration point of use systems • DNA to track pathogen sources • Location of privies and failed drinking water and wastewater systems	• Training for planners and zoning officials • Control of pharmaceuticals and endocrine disruptors into drinking and wastewater • Radon mitigation in drinking water	• UV/point of filtration research for systems that already comply with standards
Structural Deficiencies (Injury)	• Installation of working smoke alarms • Isolation 4-sided pool fencing • Pre-set safe temperature hot water heaters • Air condition during heat waves	• Home safety education on stair gates, window locks and window guards, and match & lighter storage with cabinet locks • Fall prevention by handrails, grab bars, and improved lighting	• Ignition source controls (GCFI) • Escape exit signage • Temperature-controlled water faucets • Improved smoke alarm design • Behavior modification to escape fires	• Advise to elderly on fall prevention • Give away smoke alarm programs • 3-sided pool fencing

Summary Table Evidence of Housing Intervention Effectiveness on Health

	Sufficient Evidence	Needs More Field Evaluation	Needs Formative Research	No Evidence or Ineffective
Structural Deficiencies (Injury) ***continued***			• Automatic fire sprinkler systems for housing • Pool covers and alarms • Bathtub design to reduce falls • Stove control design to prevent burns • Carbon monoxide exposure prevention through design and engineering • Improved enforcement of building and housing codes • Noise reduction	

Source: NCHH/CDC Healthy Homes Expert Panel, December 2007.