| **Summary Table Evidence of Housing Intervention Effectiveness on Health** |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| **Interior Biological Agents (Toxins)** | **Sufficient Evidence** | **Needs More Field Evaluation** | **Needs Formative Research** | **No Evidence or Ineffective** |
|  | • 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  
  • Acaricides | • Bedding encasement alone  
  • Sheet washing alone  
  • Upholstery cleaning alone  
  • Air cleaners releasing ozone |
| **Interior Chemical Agents (Toxics)** |  | • 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 |  |
| **External Exposures (Drinking water & waste treatment)** |  | • 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)** |  | • 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 |
<table>
<thead>
<tr>
<th>Structural Deficiencies (Injury) continued</th>
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<th>Needs More Field Evaluation</th>
<th>Needs Formative Research</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Automatic fire sprinkler systems for housing</td>
<td>• Pool covers and alarms</td>
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<td>- Bathtub design to reduce falls</td>
<td>• Stove control design to prevent burns</td>
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<td></td>
<td>- Carbon monoxide exposure prevention through design and engineering</td>
<td>• Improved enforcement of building and housing codes</td>
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<td>- Noise reduction</td>
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