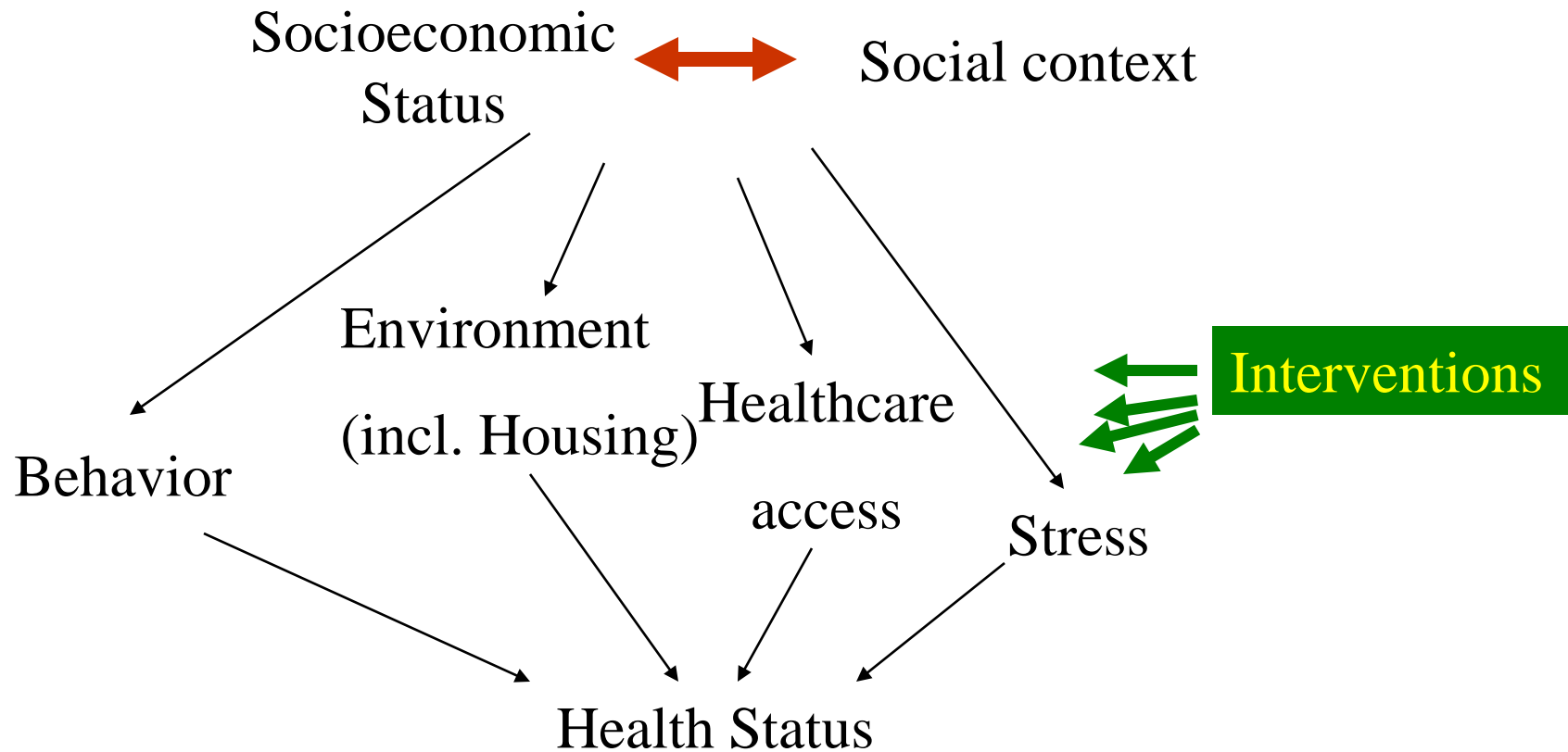


# Housing and Health (with Apologies to Yogi)

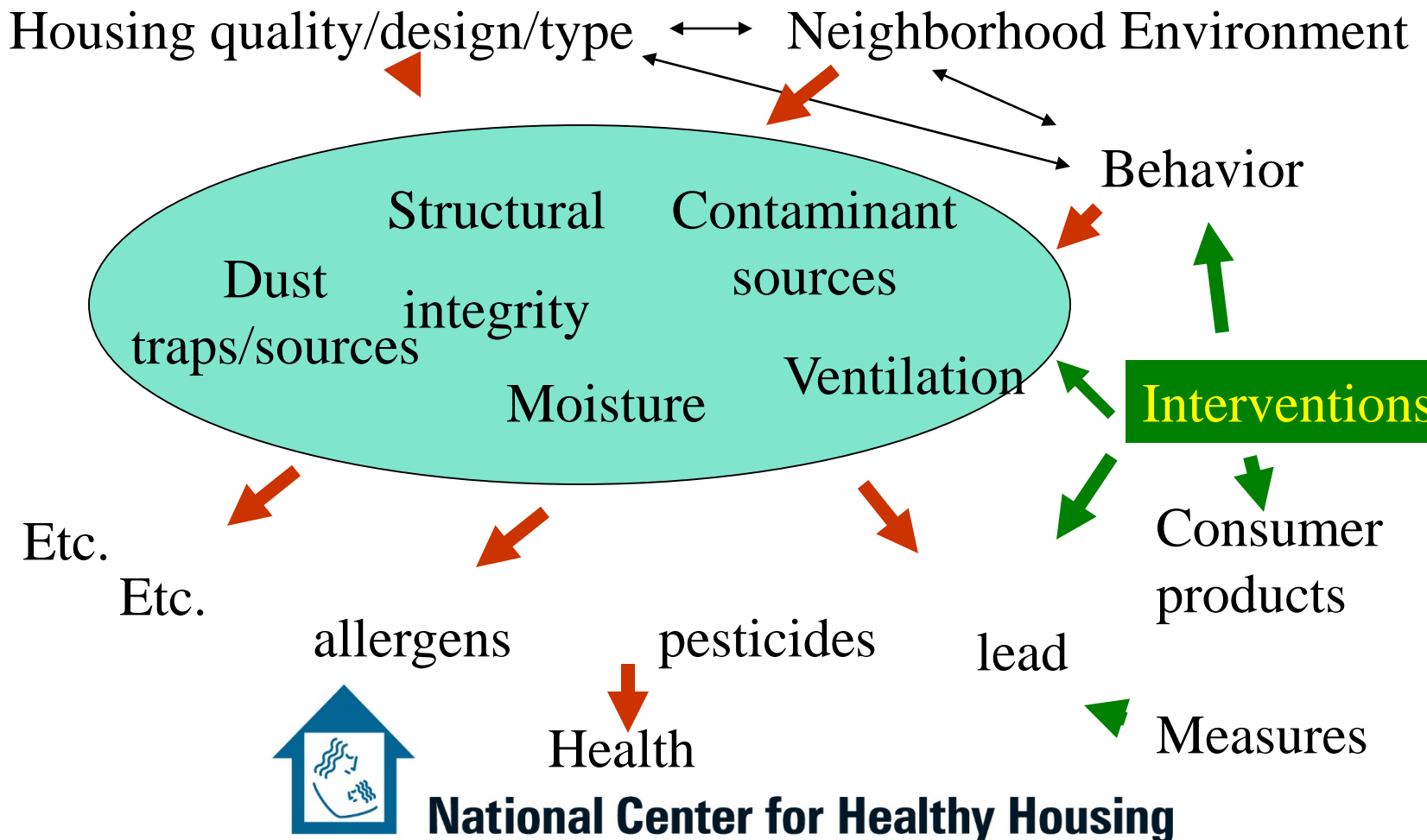
- Common pathways link multiple hazards.
  - It's 90% moisture,
    - ☆the other half is everything else.
- Housing is under-appreciated as a health determinant.
  - Your house is really important –
    - ☆without it, where would you keep your TV?
- Conventional wisdom needs to be tested.
  - The world needs kooks –
    - ☆otherwise, how would we know what's normal?



# Social Determinants of Health



# Housing and Health



# Measurement Needs

- Exposure-relevant measures
- Personal exposure
- Loading vs concentration vs air vs ?
- When do we need to measure – costs/benefits of information content
- Community-level exposures – impact on home contamination and individual exposure



# What Works

- A small proportion of the things that seem to make sense have been proven to improve health.
- Other things make sense from a housing point of view and may also improve health.
- This gives us enough to make some program and policy changes.
- However, much efficacy research as well as effectiveness/ evaluation studies are needed (see handouts for details)



# Research Needs Discussed

- Causes of the secular and social gradients in asthma and primary prevention of asthma.
- Impact of rehab/new house vs clean/repair; leverage non-research funding for the housing improvement.
- Mold/ moisture – mechanisms of impact
- Costs/ benefits.
- Feasibility/ efficacy of multi-faceted interventions.
- Mixed exposures (But how to study?)



# Research Needs - II

- Effects of pre- vs postnatal exposure
- ETS – development and behavior
- Injuries at home common – how many are preventable through housing interventions/design (e.g. stairs) vs. consumer products?
- Physical layout/aesthetics lighting, etc. and mental health/ cognitive development



# Research Issues

- Need for shift balance toward intervention studies
- Controlled trials needed to support or ?refute? causation
- But – when do we know enough to make controlled studies unethical?
- Do no harm – consider other health domains/hazards: pesticides for cockroach, window replacement for lead





# Data and Surveillance Needs

- Routine use of existing data (e.g. NAMCS, NHANES)
- Improvement of housing measures in existing health data systems
- Improvement of health measures in existing housing data systems
- Why – “what gets measured gets done”



# Implementation Issues

- Hierarchy of preferred interventions – passive/ environmental vs behavioral
- “Wholesale,” primary prevention (e.g. banning products) simpler, more effective than cleaning up
- Implementation R&D (e.g. lithium-powered smoke alarms, vouchers vs give-aways)
- Need for life-course approach – critical times for intervention. This is crucial role for health agencies.



# Implementation - II

- Scaling-up interventions – what works when?
  - Regulation
  - Private sector (e.g. insurers)
  - Cross-training home visitors in existing programs (e.g. Head Start, Healthy Start, building inspectors)
  - Financial incentives
  - Appeal to builder/remodeler concerns
- Incremental vs. radical change
- Working across disciplines and organizations



# A mature housing and health research community?

- Standardized metrics
- Well-established, routine surveillance data
- Public awareness
- Committed leadership
- NIH and/or CDC - supported centers, RFAs?
- A study section?

