

Report 31: Healthy Buildings and Communities

Convener: Lisa Conti

Brief History: The impacts of anthropogenic changes to our natural world have considerable societal health effects. These effects are both at the micro and macro level leading to morbidity and mortality related to intoxications, injuries, mental health stressors and chronic diseases such as obesity and diabetes. As our population expands, we are building new developments and also need to retrofit existing infrastructure (another building boom), having opportunities to refine our designs for health promotion and resiliency rather than untoward impact.

Discussion Highlights:

General

- This topic requires systems thinking and is a One Health issue (impacts human/animal/environmental health).
- It is cost effective to be preventative and have a greener environment.
- There is a gap between human health and sustainability practices.
- There is insufficient attention paid to health effects of products; industrial pressure is overwhelming to our regulatory agencies and suppresses information dissemination.
- NIEHS has a history of Healthy Building Initiative.
- Lower income communities are likely disproportionately impacted leading to environmental justice issues.
- There is a growth in imports for building materials which may lead to increased exposure/injury due to lack of source regulations.

Micro

- Increase use of PVC is due to technical and cost preference. However, we are building an enormous store of future dioxin burden as the material is burned. There is increasing evidence of dioxin in our food supply.
- Research exists on dioxin, but information is being suppressed by industry.
- Homes and cars should be safe for children – endocrine disruptors are prevalent in our environment (e.g. flame retardants).

Macro

- We spend considerable amount of time in indoor environments.
- 10% of our national population resides in temporary structures.
- Current economy may be negatively influencing community siting (EJ) and building practices.

Recommendations for NIEHS:

1. Sponsor extramural community health evaluations on impacts of built environment.
2. Provide focus for Healthy Buildings Initiative.
3. Support intramural research on flame retardants.
4. Support integrative research on which dioxins are increasing/decreasing and why.
5. Be a model for built environment best practices.
6. Report on current economic impact on EH/built environment.

7. Emphasize scientific insight regarding healthy buildings and communities because of potential large impact on public health and our behavior of spending the majority of our day in indoor environments.
8. Continue to conduct fundamental research on the health impacts of dioxins and dioxin-like compounds with the goal to assist regulatory reform.
9. Support extramural grants to inform urban planners and architects related to disease prevention.
10. Support interagency collaboration on this topic (eg HUD, HHS/Sustainable Communities Partnerships).

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