**Housing & Neighborhood Working Group - Call # 2**

**Summary**

Date: 8/8/2019

Chaired by G. Adamkiewicz, Y. Long

* Brief presentation by Y. Long – work in progress by neighborhood & health team
  + Relationship between neighborhood and housing outcomes
  + Definition of neighborhood by each city, potential pathways and relationship to health outcomes
  + Development of framework for neighborhood (transportation, work, leisure, social media…)
  + Density measures, floor area ratio, diversity performance, diversity from function, playability, walkability, streetscapes, greenspace, distance to transit
* Operationalizing housing/neighborhood and health frameworks
  + - What are the outcomes that can be collapsed together?
      * i.e. High/low temperatures into thermal comfort
    - Which ones are missing? i.e. noise
    - Which ones should not be here?
    - Which ones belong to neighborhood? i.e. pollutants of outdoor origin
  + Assessment of city data sources: Creation of a consistent database for the relevant housing and neighborhood variables
    - Starting with set of candidate variables that can be implemented in other cities
    - What it is that is relevant to quality? Measures of quality
* Do cities want to work on cost? (affordability) Is data on housing costs available?
  + Work from Dr. Paul Kershaw (Emily’s suggestion)
  + Check for availability of data
* Empiricism and policy relevance
* Discussion on goals for working group:
  + Concerns on how housing/neighborhood and health frameworks will be used
  + What to measure and in what form in a city and what data sources?

**Next steps and Action Items**

1. **Gary's team** –Circulates master document with summary and list of key issues (housing) for feedback whether there are missing domains and to identify the datasets and variables that might fit into the key issues. Preliminary list below.
   1. **Priority 1 for Everyone** – Add sources to master document that summarizes all the different datasets (Accra, Beijing, Dhaka, London, Vancouver).

Link: <https://docs.google.com/spreadsheets/d/1Za95cno-q1xVQI62nmZIOXTOr8UNB2WafRjW3D_Zz-A/edit?usp=sharing>

* 1. **Priority 2 for Everyone** – In tab 'Health Outcomes + Variables' for each city fill in with related variables from each data sources and add your comments.

1. **Ying's team** - Prepares the list of key issues (neighborhood) for feedback whether there are missing domains and to identify the datasets and variables that might fit into the key issues.

Table 1. Preliminary list of Housing and Health Issues

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| --- | --- |
| Issue | HOUSING & HEALTH  Key health effects |
| Household air pollution  [pollutants from stoves using kerosene, biomass (wood, animal dung and crop waste) and coal] | Stroke, ischemic heart disease, chronic obstructive pulmonary disease (COPD) and lung cancer. Close to half of deaths due to pneumonia among children under 5 years of age are caused by particulate matter (soot) inhaled from household air pollution. (WHO) |
| Environmental tobacco smoke | Cardiovascular and respiratory diseases, including coronary heart disease and lung cancer. In infants, ETS exposure raises the risk of sudden infant death syndrome. In pregnant women, it causes pregnancy complications and low birth weight. Second-hand smoke causes more than 1.2 million premature deaths per year, and 65,000 children die each year from illnesses attributable to second-hand smoke. (WHO) |
| Dampness and mold | Increased risk of respiratory symptoms, respiratory infections and exacerbation of asthma. Some evidence suggests increased risks of allergic rhinitis and asthma. Clinical evidence has shown that exposure to mould and other dampness-related microbial agents increases the risks of rare conditions, such as hypersensitivity pneumonitis, allergic alveolitis, chronic rhinosinusitis and allergic fungal sinusitis. |
| Lead exposure | Wide range of toxic effects. Based on 2015 data, lead exposure is estimated to account for 12.4% of the global burden of idiopathic intellectual disability, 2.5% of the global burden of IHD, 2.4% of the global burden of stroke, 4.4% of hypertensive heart disease, 0.8% of rheumatic heart disease and 1.4% of other cardiovascular diseases worldwide. |
| Overcrowding | Close-contact infectious diseases (e.g., tuberculosis (TB), flu-related hospitalizations and illnesses, pneumonia, acute respiratory illness, respiratory syncytial virus, gastroenteritis and diarrheal diseases, etc.) |
| Low indoor temperatures | Respiratory morbidity and mortality (e.g., studies show association with lung function in asthmatics and those with COPD); Cardiovascular morbidity and mortality (e.g., studies show association with blood pressure) |
| High indoor temperatures | All-cause mortality (outdoor temperature), heat stroke, hyperthermia, dehydration, hospital admission (cardiovascular and respiratory). Climate-specific results widely observed. |
| Injury hazards | Burns (home fires; smoke alarms); Injury in children (stair and safety gates; window guards) |
| Water quality (and poor sanitation) | Infectious disease (cholera, diarrhea illnesses, dysentery, hepatitis A, typhoid and polio); Pollutant-related disease (e.g., lead) |