

Neighborhood/ Contextual Data for HCAP Studies



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Context

DIMENSIONS OF ENVIRONMENT

Which aspects of context/environment matter for cognitive health and dementia risk?



Physical/Built Environment

- Walkability/drivability
- Traffic
- Green space
- Weather



Social Environment

- Social disorder
- Crime
- Community cohesion
- Proximate network



Amenity Environment

- Health care
- Parks and recreation
- 3rd places
- Proximity to resources (e.g., grocery stores)



Chemical Environment

- Exposure to toxicants in water, soil, air etc.
- Indoor exposures (e.g., cooking fuel, building materials, pesticides)

How do we measure context?



Respondent reports

- Assessments of safety, walkability, noise, air quality
- Feelings of community and cohesion



Rater reports (e.g., interviewer observations)

- Observed disorder, decay, built and natural environment



Administrative data

- Social, demographic, and economic characteristics



Image data

- Satellite images, street-level images



Options for harmonized measures



Respondent reports:

Can be harmonized through instrument alignment

- ✓ greater burden, mode differences, variation by country



Rater reports:

Can be harmonized through instruments, training, and protocol alignment

- ✓ increased demands on field team



Administrative data:

Hard to harmonize due to differences in spatial administrative units and measures

- ✓ coverage and completeness



Image data:

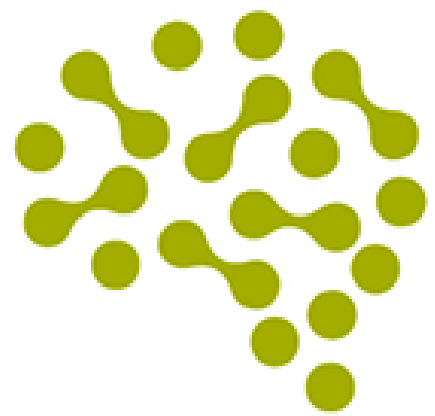
Data are very harmonizable

- ✓ extra data processing steps and decisions

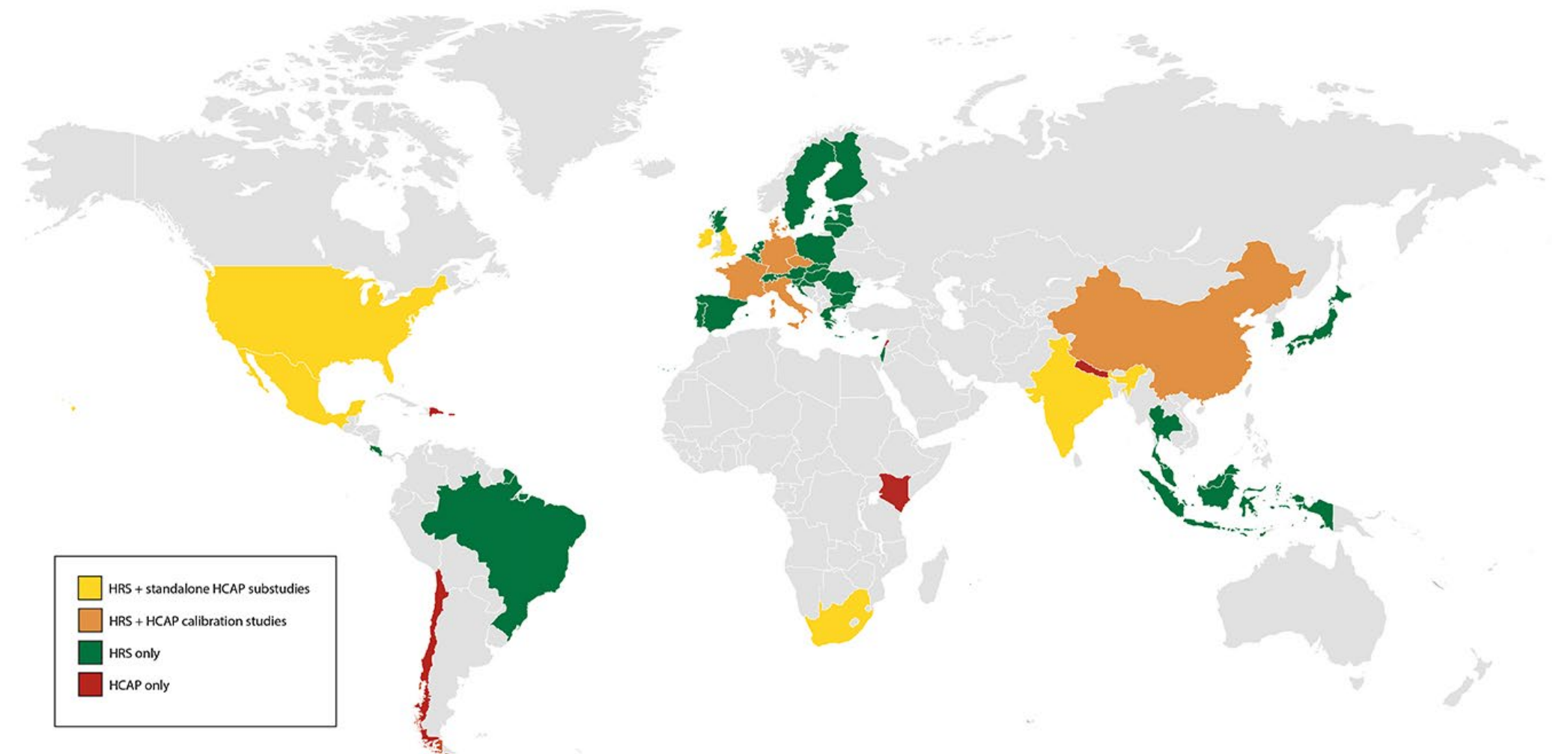


Contextual Data for HCAP Studies

What would be priorities for inclusion?



**HCAP
NETWORK**



Respondent Reports

Neighborhood Social Cohesion

HRS

Q20

These questions ask how you feel about your local area, that is everywhere within a 20 minute walk or about a mile of your home. Please mark one box on each line. The closer your mark is to a statement the more strongly you agree with it.

(Mark (X) ONE box.)
I really feel part of this area I feel that I don't belong in this area
1 2 3 4 5 6 7

(Mark (X) ONE box.)
Most people in this area can be trusted Most people in this area can't be trusted

(Mark (X) ONE box.)
Most people in this area are friendly Most people in this area are unfriendly
1 2 3 4 5 6 7

(Mark (X) ONE box.)
If you were in trouble, there are lots of people in this area who would help you If you were in trouble, there is nobody in this area who would help you
1 2 3 4 5 6 7

NICOLA

People in neighbourhood most trusted

- 1, Most of the people in your neighbourhood can be trusted
- 2, Some can be trusted
- 3, A few can be trusted
- 4, Or that no-one can be trusted?
- 5, Just moved here
- 6, Don't know

In general, what kind of neighbourhood would you say you live in - would you say it is a neighbourhood in which people do things together and try to help each other, or one in which people mostly go their own way?

- 1, Help each other
- 2, Go own way
- 3, Mixture
- 4, Don't know

Suppose you lost your purse/wallet. How likely is it that it would be returned to you with nothing missing?

- 1, Very likely
- 2, Quite likely
- 3, Not very likely
- 4, Or not at all likely
- 5, Don't know

Respondent Reports

Neighborhood Disorder

HRS

NICOLA

Q20

These questions ask how you feel about your local area, that is everywhere within a 20 minute walk or about a mile of your home. Please mark one box on each line. The closer your mark is to a statement the more strongly you agree with it.

(Mark (X) ONE box.)
There is no problem with vandalism and graffiti in this area Vandalism and graffiti are a big problem in this area

(Mark (X) ONE box.)
People feel safe walking alone in this area after dark People would be afraid to walk alone in this area after dark

(Mark (X) ONE box.)
This area is kept very clean 1 2 3 4 5 6 7 This area is always full of rubbish and litter

(Mark (X) ONE box.)
There are no vacant houses or storefronts in this area 1 2 3 4 5 6 7 There are many vacant or deserted houses or storefronts in this area

How much of a problem are vandalism, graffiti and other deliberate damage to property or vehicles?

How much of a problem are people being drunk or rowdy in public places?

How much of a problem are people using or dealing drugs?

How much of a problem are troublesome neighbours?

How much of a problem are teenagers hanging around on the street?

- 1, Very big problem
- 2, Fairly big problem
- 3, Not a very big problem
- 4, Not a problem at all
- 5, It happens but it's not a problem
- 98, Don't know

Interviewer Observations

Neighborhood Conditions

HRS

Which of the following are present within sight of the housing unit?

1. Vandalism
2. Boarded houses
3. Abandoned cars
4. Abandoned or demolished houses
5. Trash, litter, or junk in street/road
6. Trash, litter, or junk in around buildings in neighborhood
7. Factories or warehouses
8. Stores or other retail outlets
9. Run down or poorly kept yards or communal areas
10. A park, playground, or garden area

What is the volume of traffic in the area near the home?

1. No traffic
2. Light (Occasional cars)
3. Moderate
4. Heavy (Steady stream of cars)
5. Don't know; Not Ascertained

Which best describes the condition of the street where the home is located?

1. Under construction
2. Very poor (many sizeable cracks, potholes, or broken curbs)
3. Fair
4. Moderately good (no sizeable cracks)
5. Very good
5. Don't know; Not Ascertained

Describe the quality of sidewalks in the area near the home.

1. No sidewalks in the area
2. Sidewalks are in place on both sides of the street
3. Sidewalks are continuous (no missing segments)
4. Sidewalks are smooth/flat/unbroken
5. Sidewalks are wide enough for two people to pass
6. None of the above
7. Don't know; Not Ascertained

Interviewer Observations

Neighborhood Conditions

LASI

Which of the following are present within sight of the housing unit?

1. Public transportation (bus stop or rail station)
2. Park, garden, or other greenspace
3. Places for pedestrians to sit (benches)
4. Stores or other businesses
5. Boarded up or abandoned houses
6. Trash in the street or on the sidewalks
7. Vandalism (obvious human-caused damage to the exterior of structures in the area, such as broken windows)
8. Damage to buildings caused by a natural disaster (e.g., earthquake or flood)
9. Major construction on nearby buildings
10. Major road construction
11. Run down or poorly kept public spaces/communal areas
12. Open/broken sewage lines
13. Dumping grounds
14. None of the above

LASI

How well kept are the structures in the neighborhood

1. Very well
- 2.
- 3.
- 4.
5. Very poorly (dilapidated structures)

Which best describes the condition of the road where the home is located?

0. There are no constructed roads
1. Very poor
- 2.
- 3.
- 4.
5. Very good

If the condition of the road are very poor, is it the result of recent weather events (e.g., heavy rains) or natural disasters (e.g., earthquakes)?

1. Yes
2. No

Interviewer Observations

Neighborhood Conditions (Cont.)

LASI

Describe the quality of sidewalks in the area near the home

1. No sidewalks or protected pedestrian walkways
2. Sidewalks/protected pedestrian walkways are in poor condition
- 3.
- 4.
5. Sidewalks/protected pedestrian walkways are in very good condition

What is the volume of car/bus/motor/rickshaw traffic in the area near the home?

1. No traffic
- 2.
- 3.
- 4.
5. Heavy (Steady stream)

What is the volume of pedestrian traffic in the area near the home?

1. No traffic
- 2.
- 3.
- 4.
5. Heavy

Tell us about Noise

1. Quiet
- 2.
- 3.
- 4.
5. Noisy

Smell

1. No smell
- 2.
- 3.
- 4.
5. Strong smell

Air pollution

1. No air pollution
- 2.
- 3.
- 4.
5. Strong air pollution

PRIORITIES

For Inclusion in HCAP Studies



Measures should be context-dependent, both in terms of country context and urban/rural context

01 Respondent Reports

- Does R feel safe in their neighborhood
- R report of neighborhood social cohesion
- R reports of infrastructure (e.g., electricity, piped water, sewage system, garbage pick up)

02 Interviewer Observations

- Condition of built environment (e.g., buildings, streets, sidewalks, weather-related damage)
- Physical environment characteristics (traffic, noise, smells, pollution)

03 Administrative Data Linkages*

- Area-level social, demographic, health care, amenities, chemical environment (e.g., area-level deprivation, poverty, population density)

04 Image-based Data*

- Satellite-based measures of air pollution, green space, weather

* If there is the potential to link respondents