The environment, physical activity and obesity

Physical activity $\rightarrow$ Obesity

Ecological models:
- Psychosocial factors
- Personal factors

Neighborhood environment $\rightarrow$ Physical activity

Neighborhood environment $\rightarrow$ Obesity

Physical activity
<table>
<thead>
<tr>
<th>Physical activity</th>
<th>Objective</th>
<th>Subjective</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>accelerometers</td>
<td>questionnaires</td>
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<td></td>
<td>geographical information systems</td>
<td>log books</td>
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<td></td>
<td>neighborhood audit</td>
<td>questionnaires (e.g. NEWS)</td>
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<tr>
<td>Neighborhood environment</td>
<td>google streetview</td>
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Direct relationship: neighborhood and physical activity in children

- active transportation to school
- Household distance from school
+ Walkability, accessibility
(+ density, pedestrian crossings, general safety
0 aesthetics, crime safety, traffic safety and recreation facilities

- walking and cycling during leisure
  moderate- to vigorous- intensity physical activity
  total physical activity

Unrelated to the neighborhood environment
Indirect relationship: neighborhood and physical activity

- e.g. Self efficacy
- Independent mobility
- e.g. Sex
- Neighborhood income
- e.g. Walkability
- Safety
- Aesthetics
- physical activity

Adapted from: Kremers et al. 2006
Most interventions: increasing the availability of play spaces for children

- park improvements in Australia
- park renovations in the USA
- an urban greenway/trail to increase connectivity for pedestrians in the USA
- schoolyards were made available after school hours on week- and weekend days as a safe play space for children in the USA

⇒ children’s physical activity increased