

Using the Concept of "Population Dose" in Planning and Evaluating Community-level Obesity Prevention Initiatives



Center for Community Health and Evaluation
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- ***Planning:*** What strategies maximize impact?
- ***Evaluation:*** How to evaluate the individual and collective impact of strategies?

Strategies




How to pick strategies?



Need to be feasible, supported by the community, sustainable, evidence informed



AND also have an impact



We call estimated strategy-level impact “population dose”

A strategy is high-dose if ...

... many people in the community change their lifestyle in a significant way as a result of its implementation

We need to be clear what we mean by:

“many people”

“change their lifestyle”

“significant way”

“Population” because it applies to the whole community



Reach: Number of people exposed

Strength: Impact (i.e., change in lifestyle) for each person reached



Examples

Low reach, high strength



High reach, (potentially) low strength GroupHealth.



High reach, high strength



GroupHealth.





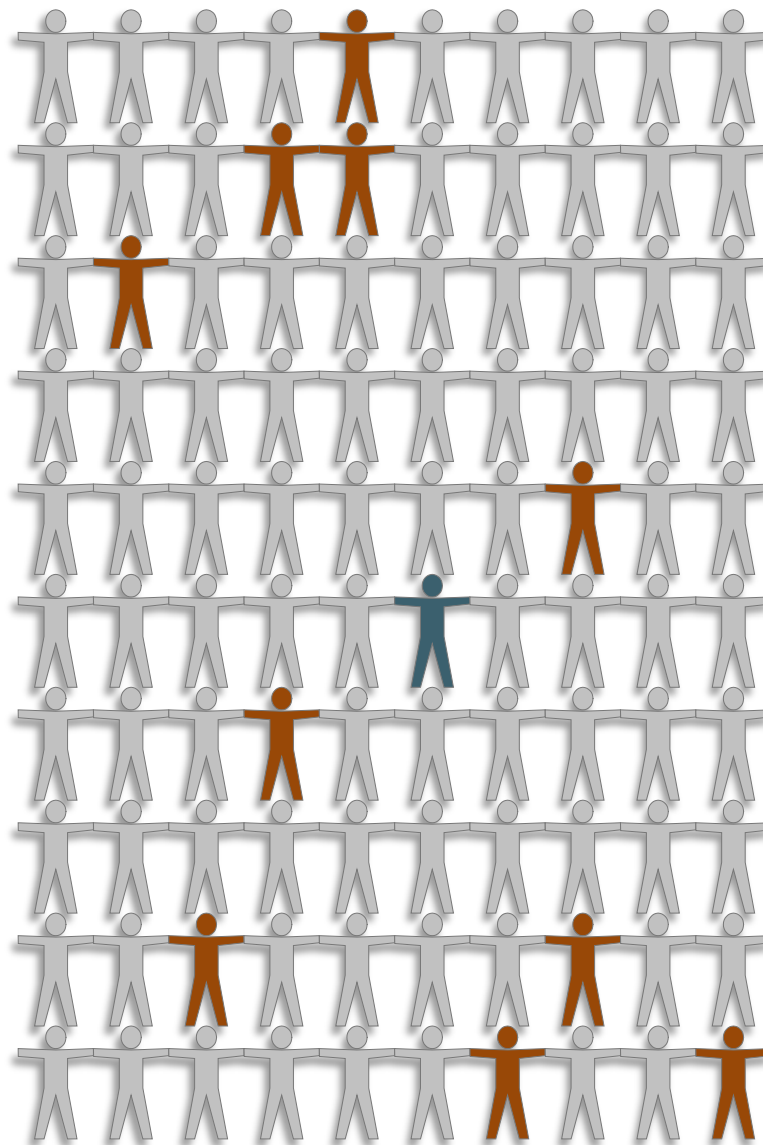
Measuring reach

Reach is measured by ...

... the percent of the people in your community who are exposed to the strategy



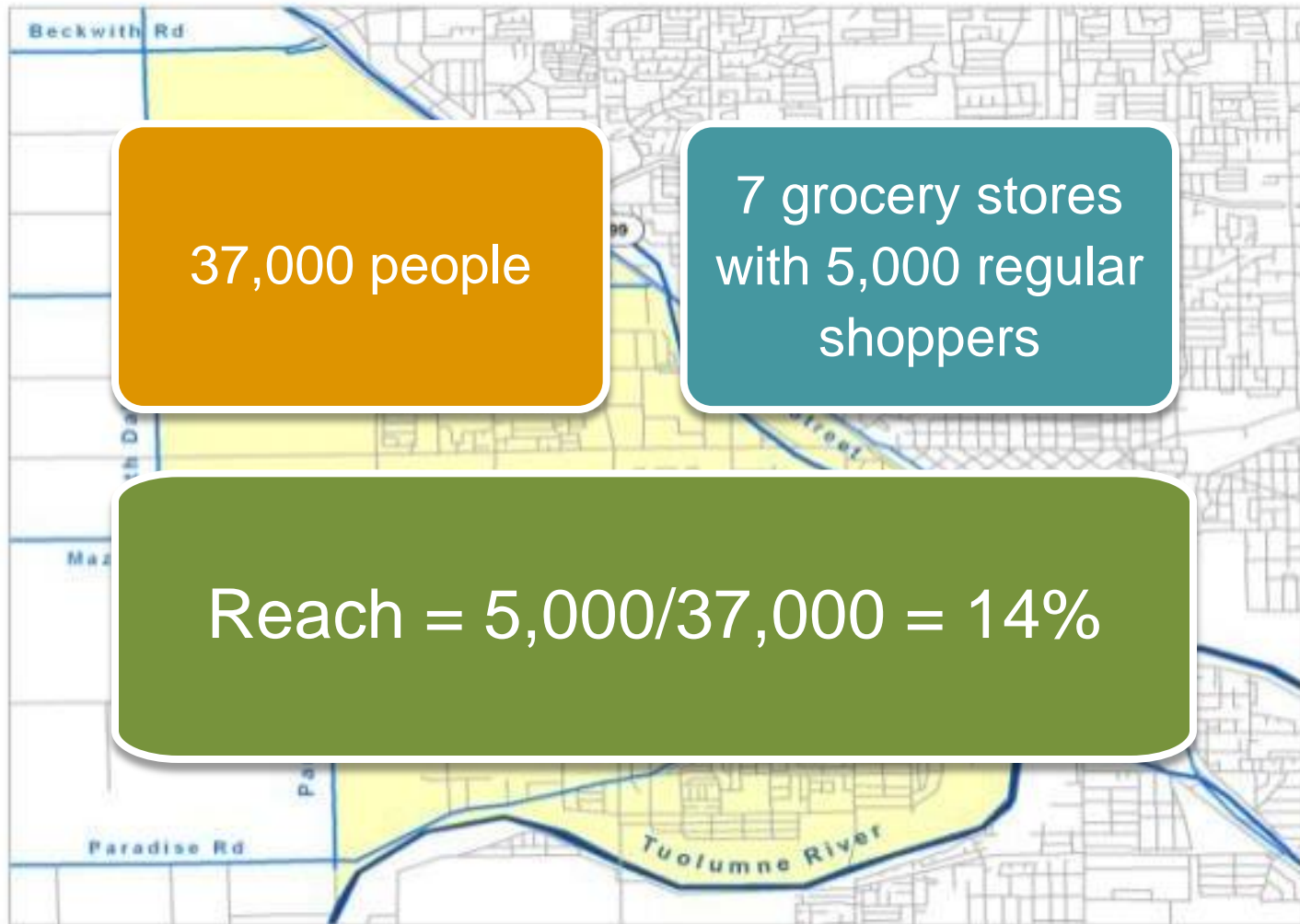
What is high reach?



Defining “Exposure”



Reach example: West Modesto





Measuring strength

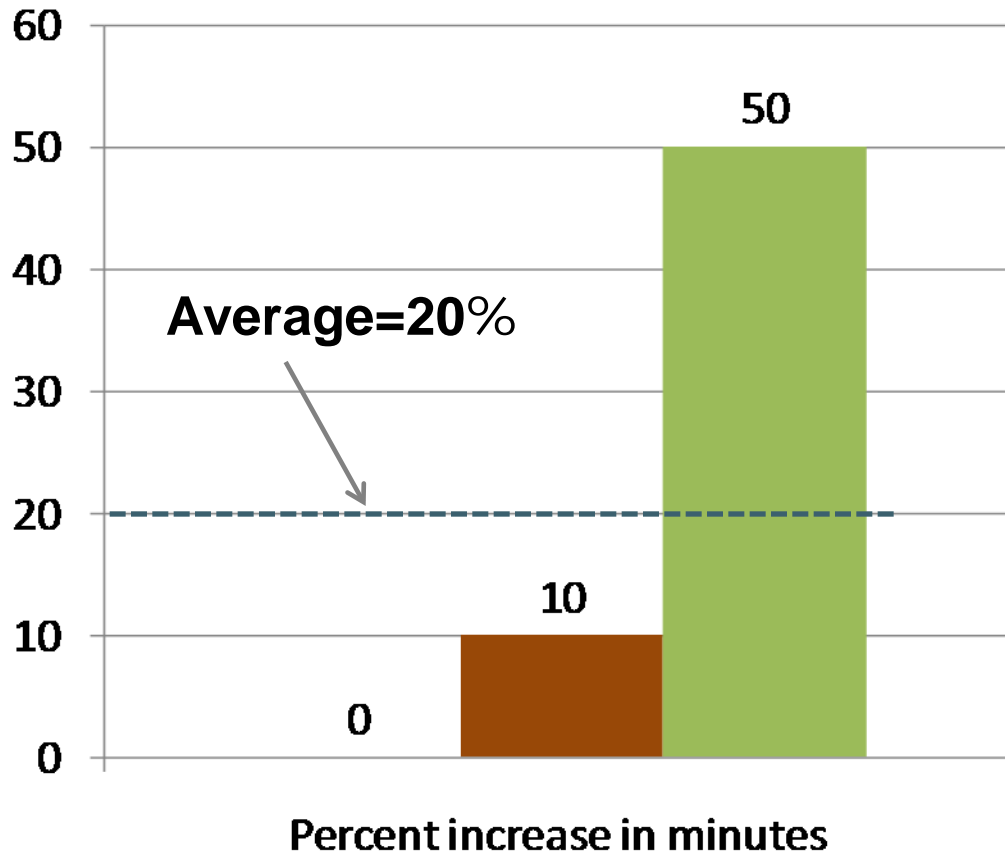
Strength is measured by ...

... the percent improvement in lifestyle behaviors (more minutes, more F&V servings)



Day-to-day lifestyle changes that increase activity or improve diet from baseline levels

Strength = average strength



- Person 1
- Person 2
- Person 3



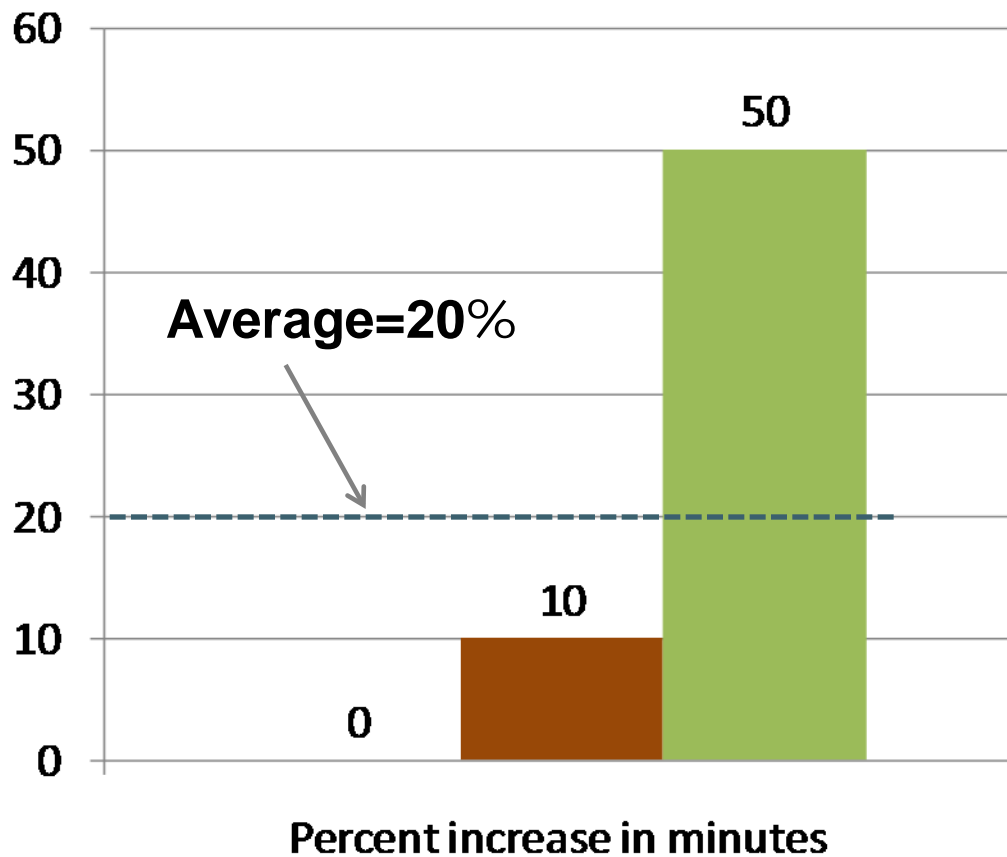
Population dose

Combination of reach and strength



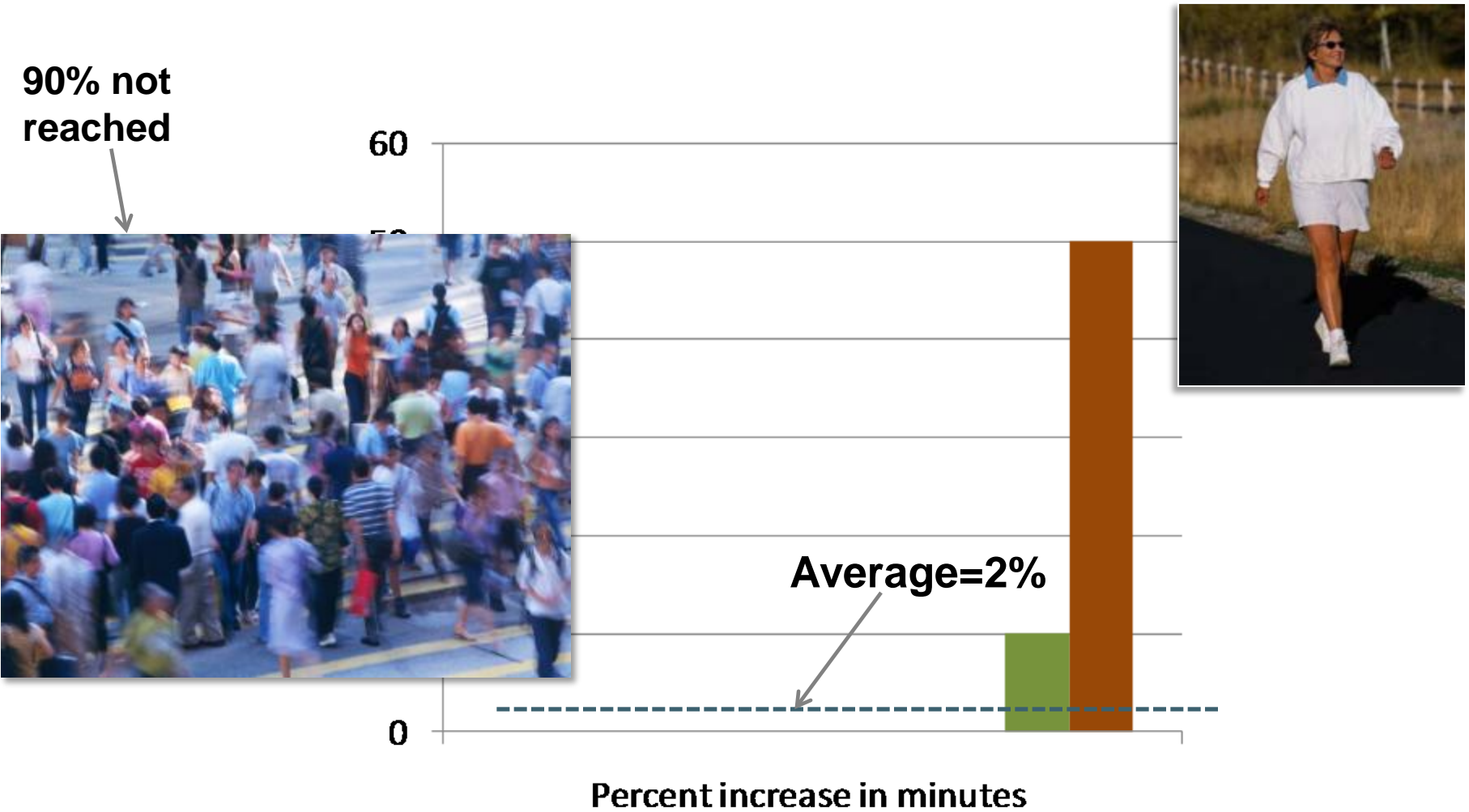
Multiply them together = Average strength
across everyone in the target community

Strength = average strength

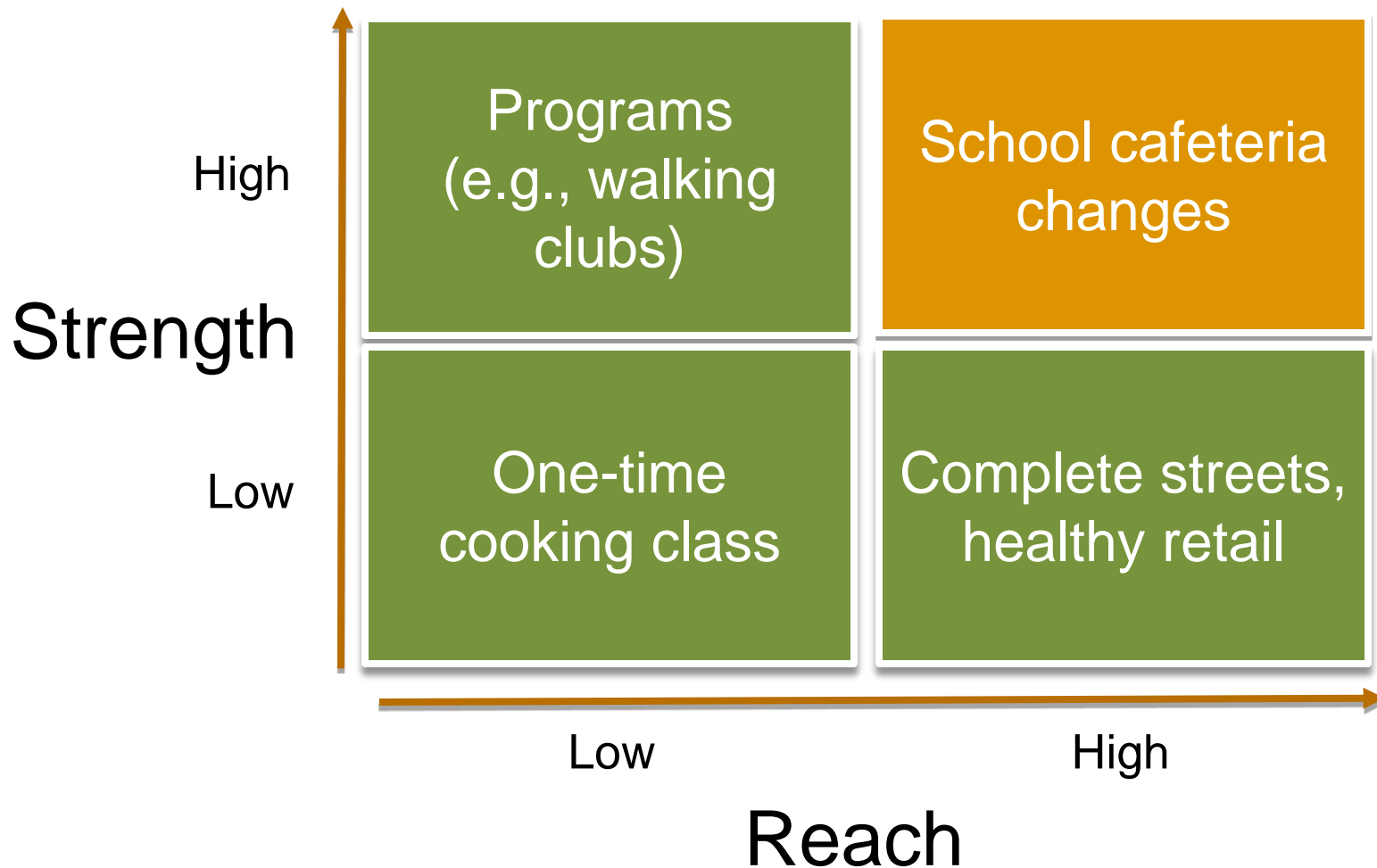


- Person 1
- Person 2
- Person 3

Average strength across whole community



Examples of strategies by dose





Creating high dose
strategies

Getting to high reach



CSA
Program



Outreach

Getting to high strength



CSA
Program

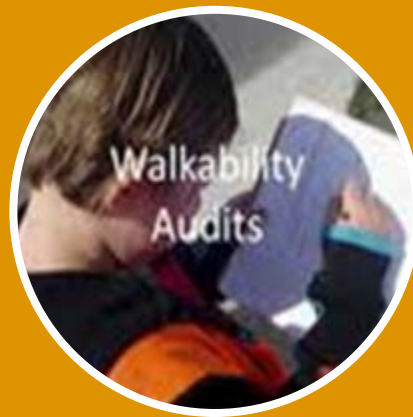


Cooking
classes

Sequence of strategies



Walking
group



Walkability
audits



Built
environment
changes

- ***Now:* Population dose concept can lead to the right conversations**
- ***Future:* Provides a framework for using quantitative evidence effectively**



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