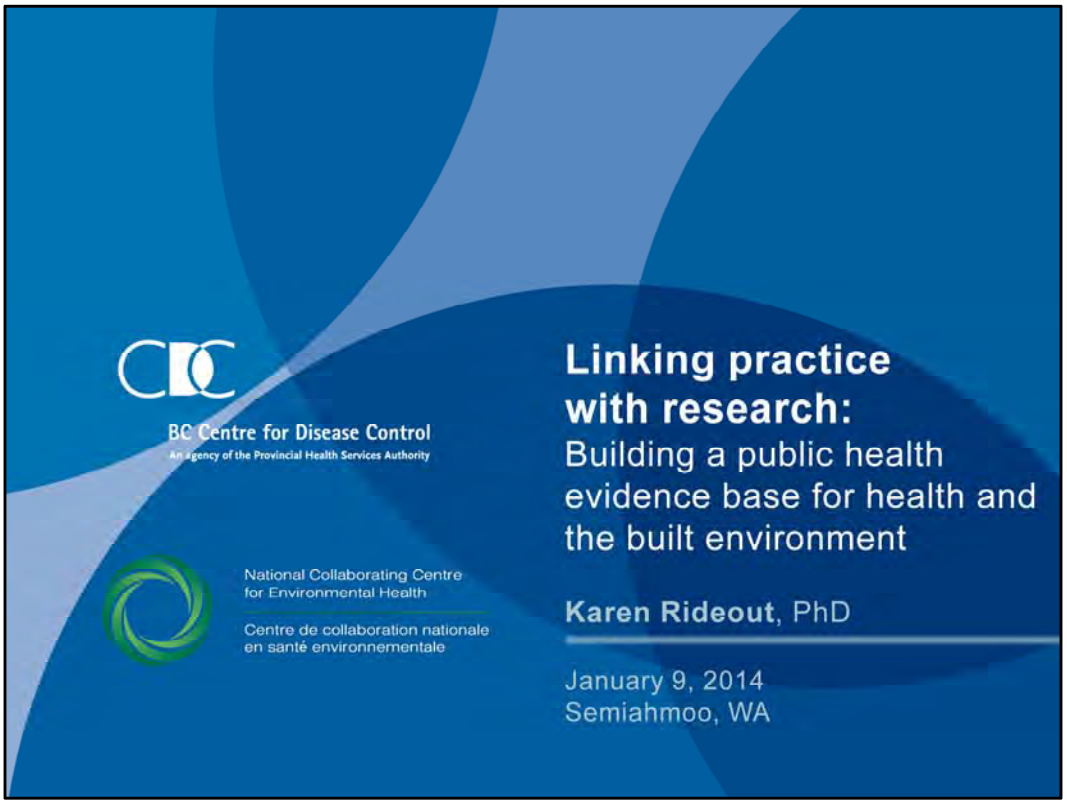

This talk is about a project I've been involved in – working with health and planning sectors to start building an evidence base for healthy built environment interventions

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Outline

- *Healthy Built Environment Linkages: A Toolkit for Design * Planning * Health*
- Building the evidence base
- Evidence highlights
- Draft *Linkages Toolkit*
- Learning from the process & moving forward

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•**HBEA** (formed 2008) is a group of professionals from health, planning, research, and local government sectors **working together to better understand impacts of the built environment on human health** … and to **translate that information to relevant stakeholders**.

•Recognition that **planners can impact health**.
And that **health sector can assist planners** and others in **using evidence in practice**.

•**Facilitate conversations** between sectors and assisting in applying health evidence.
•Inform **decision–making processes** around the built environment.
•Be a navigational tool, directing people to further information and linking to a **"virtual binder" of resources** which will be developed over time.

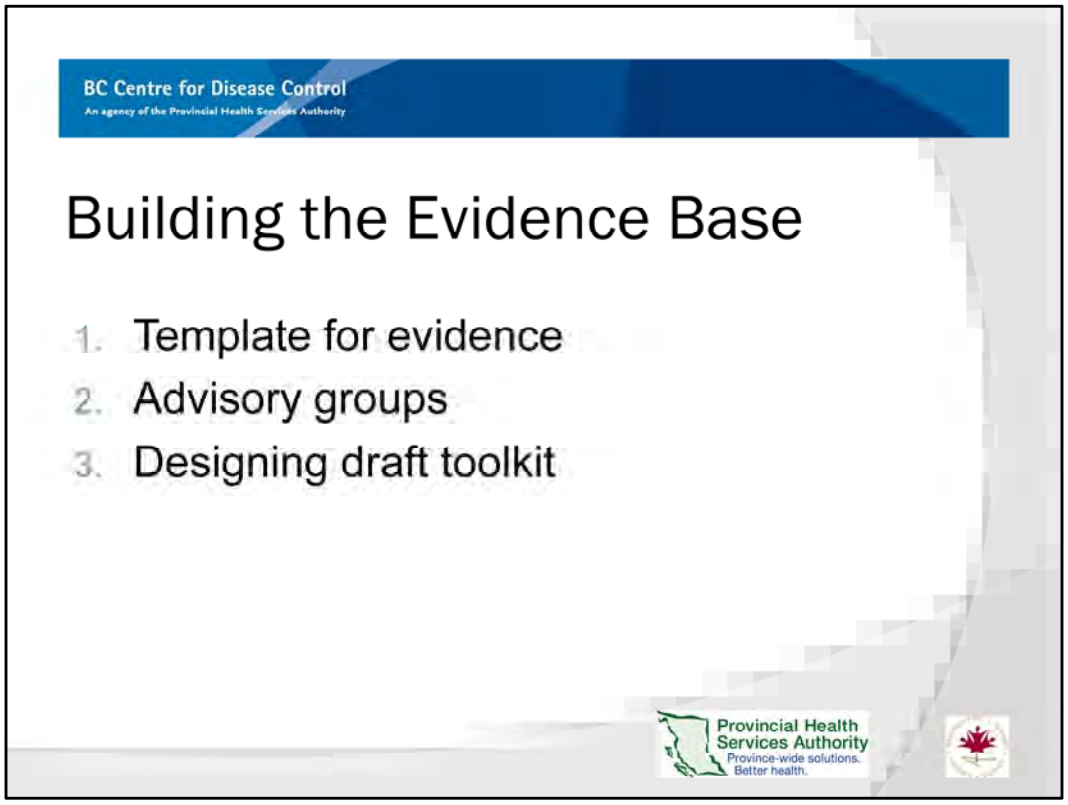
•Toolkit could be used to:
- •**Make the case** for interventions to a municipal council – why it is good (e.g., preserving park space from development)
- •**Advocate for policy support** – evidence of health impacts (e.g., school food policies)
- •Especially for interventions that **cross jurisdictional boundaries** (e.g., transportation or agriculture and health)

Started in 2011 with formation of Linkages Working Group:

- Working group members from RHAs, PHSA, local governments, UBCM, PIBC, BCCDC
- **To identify high-level guiding principles**; not prescriptive.

- **Initial evidence reviews** by Mary Formby and Victoria Barr (MPH students at Uvic) **with input from *Linkages* Working Group**.
- **Identified 5 Key physical features**

- LEES + Associates – graphics and design



1. Ad hoc working group (summer 2013) to **develop tools for gathering and assessing evidence** – to be **consistent** across reviewers and over time:
    - **Search strategies**
    - **Quality appraisal**
    - **Data extraction** – Excel template
    - Evidence synthesis – grading system (based on The Community Guide methods) and Excel template

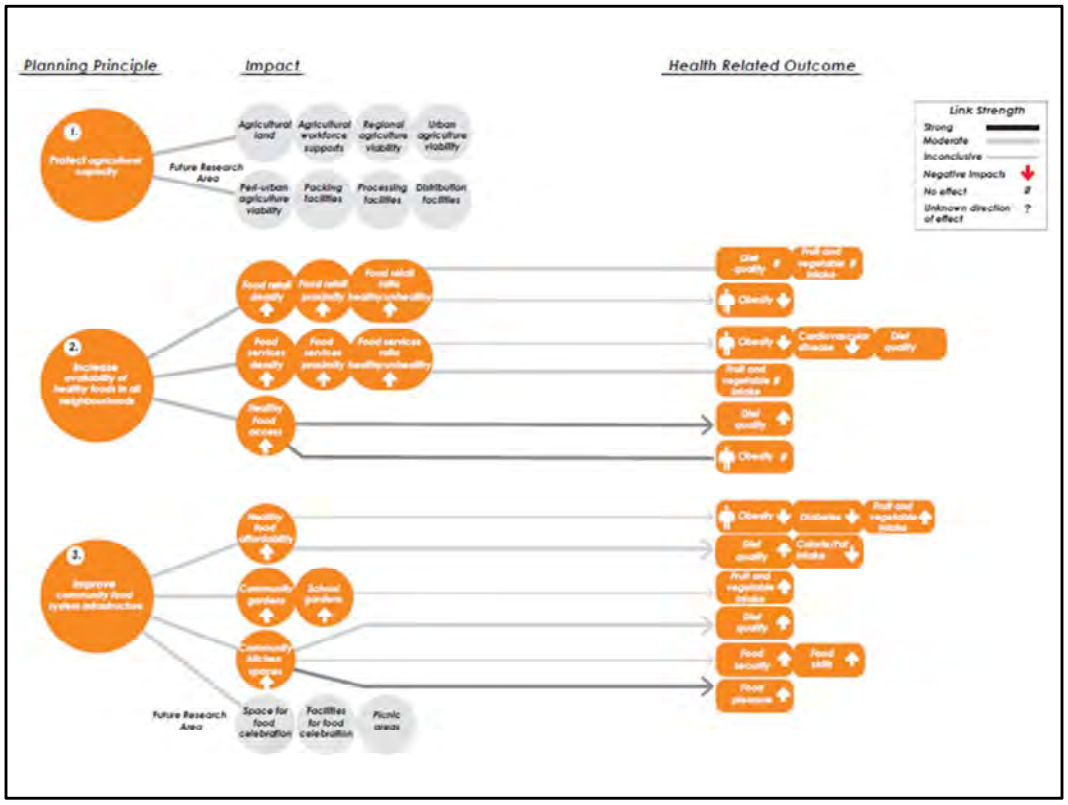
2. Advisory groups formed for each of 5 physical features
    - from health and planning
    - 2 **contractors** did evidence review, supervised by Lisa Mu and me
        - Started with **review articles** only
    - **Advisory groups guided** literature search, refinement of search strategy, inclusion/exclusion, priority topics

3. Worked with LEES + Associates to develop toolkit pages and graphics
    - Based on evidence synthesis →
    - Guided by 5 advisory groups and HBEA feedback

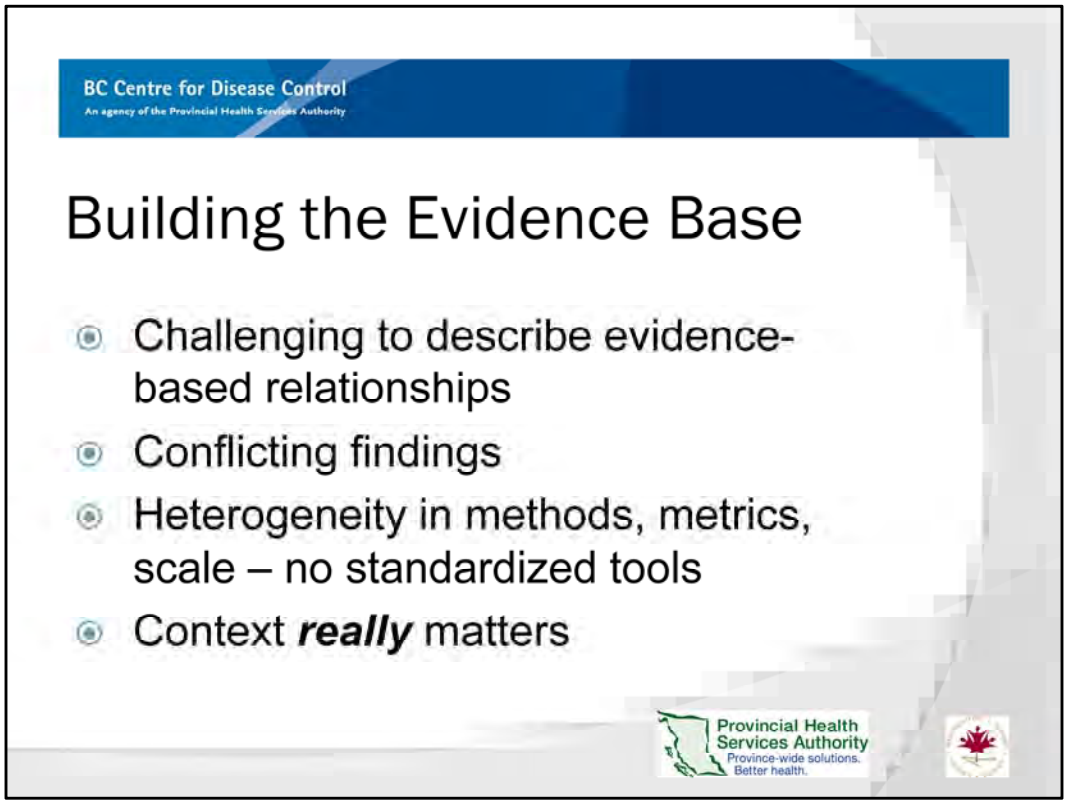
The Guide to Community Preventive Services, US CDC
http://www.thecommunityguide.org/index.html
http://www.thecommunityguide.org/about/strengthofevidence%20assessment.pdf

Independent variable	Dependent variable	Summary of evidence	Symbol	Strength of evidence	Contextual considerations	Research gaps	Comments
Community kitchens	Social determinants of health	Increased engagement with social services, social skills, coping skills, health behaviours, community empowerment.	positive	Strong	Most research focuses on low income people and/or immigrants. Community kitchen characteristics vary widely.	Objective measures. Links with actual health outcomes (vs determinants).	Based on consistent findings from 2 high quality reviews, but most studies are small sample sizes because of small, community-based nature of community kitchens.
Community kitchens	Diet quality	Improved diets among participants.	positive	Moderate	Most research focuses on low income people and/or immigrants. Community kitchen characteristics vary widely.	More study needed.	One high quality review with consistent findings, but at least one study in the review was low quality.
Community kitchens	Food security	Impact on food resources unclear.	null	New area of study	Most research focuses on low income people and/or immigrants. Community kitchen characteristics vary widely.	More research needed with larger samples sizes - that specifically examine food security and food resources.	2 high quality reviews with inconsistent/inconclusive findings.
Community kitchens	Food skills	Improved skills for budgeting, shopping, cooking, and confidence.	positive	Moderate	Most research focuses on low income people and/or immigrants. Community kitchen characteristics vary widely	More study needed.	1 high quality review with consistent findings from 4 studies
Community kitchens	Enjoyment	Studies showed increased enjoyment of food.	positive	Moderate			1 high quality review with 5 studies.
Community/school gardens	Diet quality	Increased fruit and veg intake among garden program participants.	positive	New area of study		More study needed.	1 moderate quality review with few studies
Community/school gardens	Food skills	Increased food knowledge and preference for healthy	postive	New area of study		More study needed.	1 moderate quality review with few studies
Access to healthy food	Diet quality	Associated with healthy eating	positive	Moderate	Metrics of diet quality vary, but usually relate to fruit and vegetable consumption, whole grains, or low fat dairy.	Assessment of "access" inconsistent. More study needed to confirm relationship.	1 high quality review with consistent findings.
Access to healthy food	Diet-related illness	Associated with lower rates of diet-related health metrics such as diabetes, BMI, or diet-related deaths.	positive	Moderate		Assessment of "access" inconsistent. More study needed to confirm relationship.	1 high quality review with consistent findings.

Took these…..



….and created these.



Illustrate some of the challenges using an example from the food systems evidence review.

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Food retail and services

- Availability:
  - Healthy:Unhealthy
  - Density per capita
  - Geographical density
  - Census tract
  - Proximity – buffer, activity space, street distance
  - Relative price

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Food retail and services

- Healthiness:
  - Purchases
  - Home pantry
  - Food frequency
  - Shelf space
  - Store type
  - Price index

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Food retail and services

- Scale:
  - Home neighbourhood
  - Work neighbourhood
  - Daily travels
  - State-level
  - Postal code or census tract

Now I will very briefly share some of the highlights emerging from the evidence
– very broad overview of the topics and links we are seeing.

Most evidence related to….

Associated with improvements in….

Potential consequences to consider….

Most evidence related to….

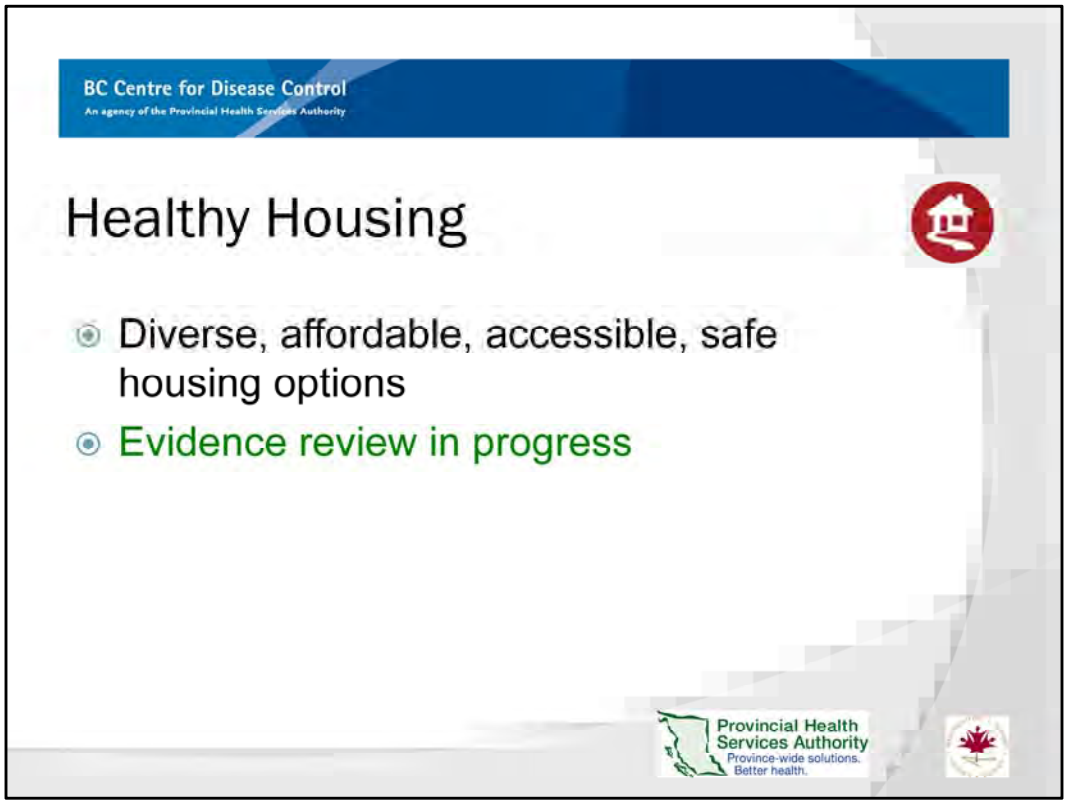
Associated with improvements in….

Most evidence related to….

Associated with improvements in….

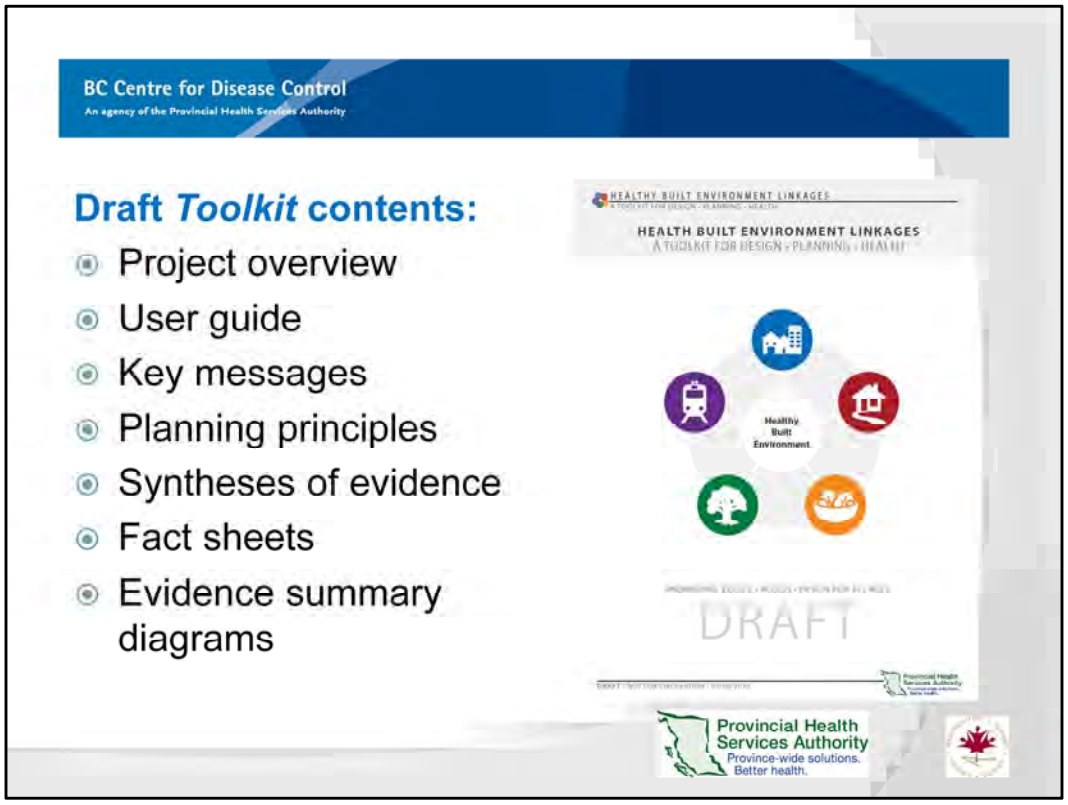
Most evidence related to….

Associated with improvements in….
Local and regional agriculture capacity seen as particularly important for future research and review



Most evidence related to….

Evidence review last to be completed and I haven't seen it yet.

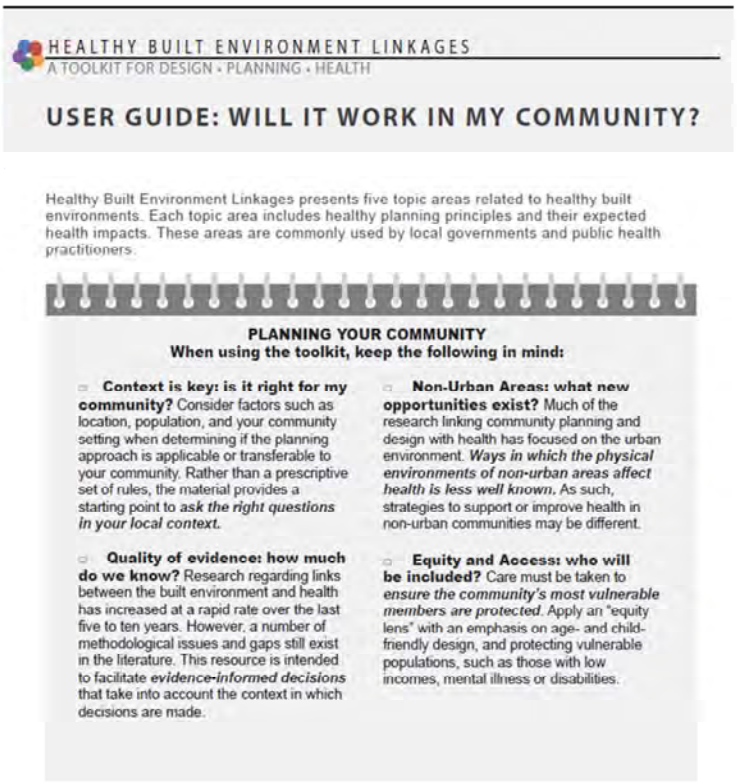


Now I will walk you through some sample pages of the Toolkit.
I will also hand around some **print versions** so you can see it in complete form.
We are happy to have **feedback**, so please pass any comments along to me after.

Increasing complexity and detail from front to back.
Different users can choose which level of detail serves their purpose.

Cover page:
•Project overview

User Guide



HEALTHY BUILT ENVIRONMENT LINKAGES
A TOOLKIT FOR DESIGN • PLANNING • HEALTH

USER GUIDE: WILL IT WORK IN MY COMMUNITY?

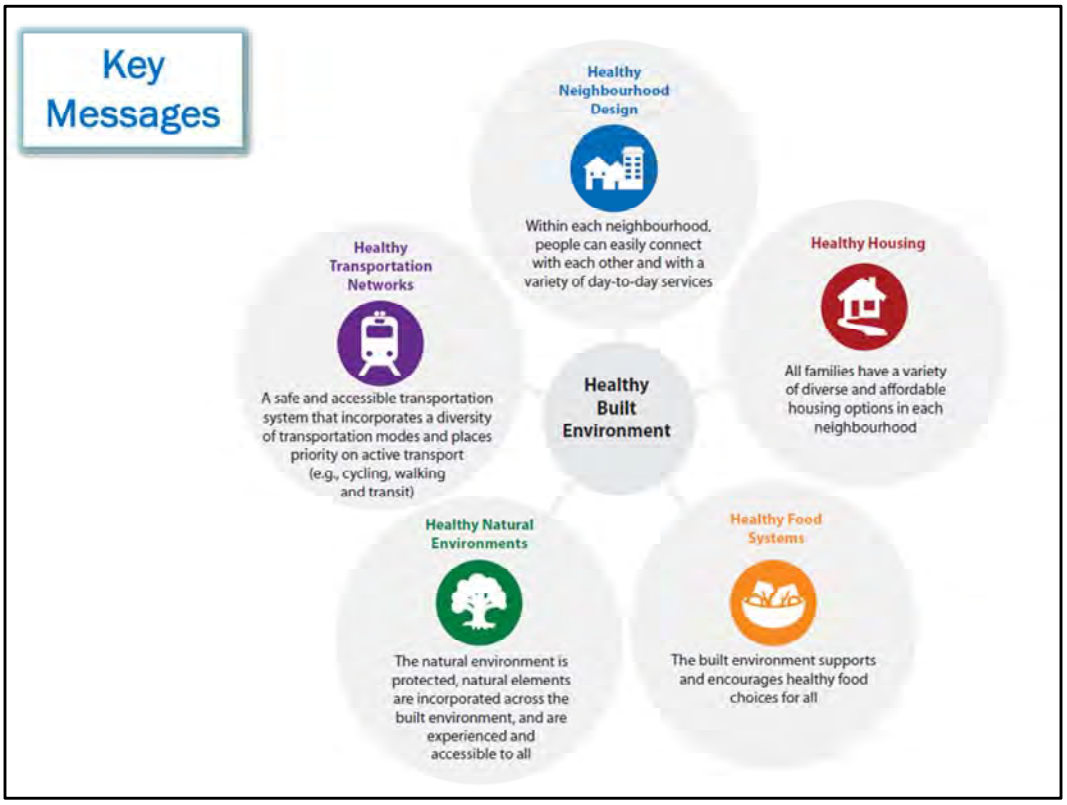
Healthy Built Environment Linkages presents five topic areas related to healthy built environments. Each topic area includes healthy planning principles and their expected health impacts. These areas are commonly used by local governments and public health practitioners.

PLANNING YOUR COMMUNITY
When using the toolkit, keep the following in mind:

- **Context is key: is it right for my community?** Consider factors such as location, population, and your community setting when determining if the planning approach is applicable or transferable to your community. Rather than a prescriptive set of rules, the material provides a starting point to ***ask the right questions in your local context.***
- **Quality of evidence: how much do we know?** Research regarding links between the built environment and health has increased at a rapid rate over the last five to ten years. However, a number of methodological issues and gaps still exist in the literature. This resource is intended to facilitate ***evidence-informed decisions*** that take into account the context in which decisions are made.
- **Non-Urban Areas: what new opportunities exist?** Much of the research linking community planning and design with health has focused on the urban environment. ***Ways in which the physical environments of non-urban areas affect health is less well known.*** As such, strategies to support or improve health in non-urban communities may be different.
- **Equity and Access: who will be included?** Care must be taken to ***ensure the community's most vulnerable members are protected.*** Apply an "equity lens" with an emphasis on age- and child-friendly design, and protecting vulnerable populations, such as those with low incomes, mental illness or disabilities.

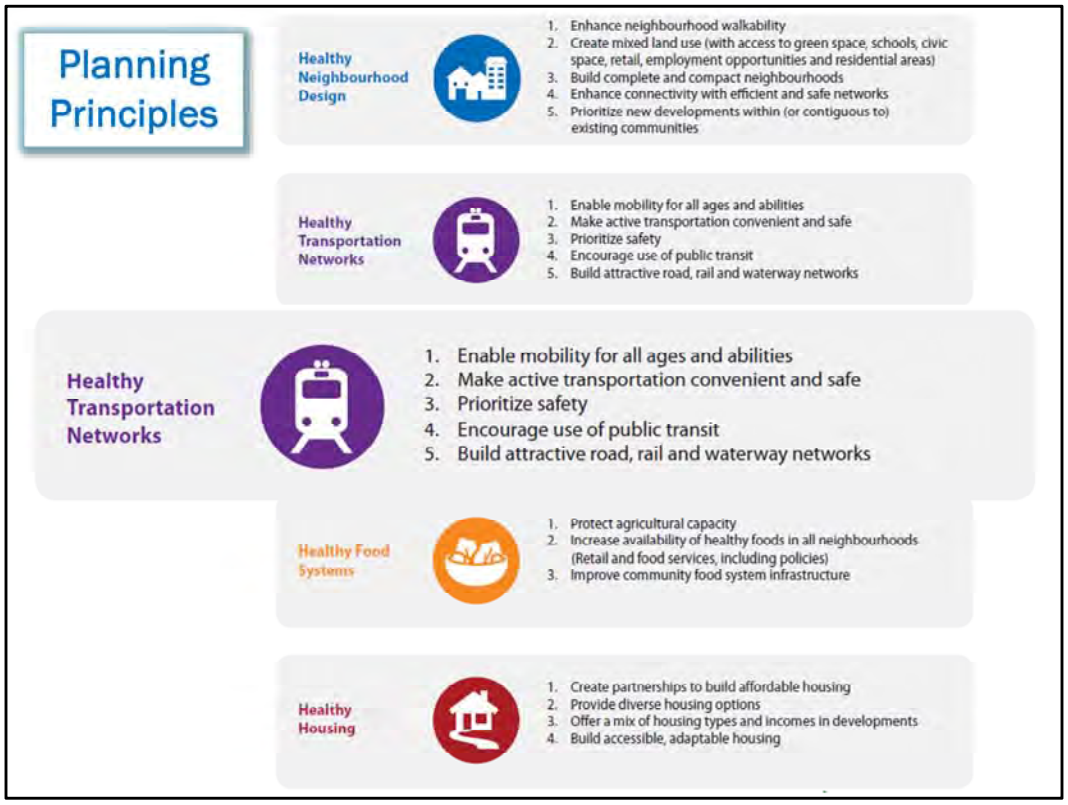
User guide:

- How to use
- Caveats and limitations of the evidence
- Jurisdictional issues – who can influence what
- Contextual considerations – e.g., location and equity



Key messages:

- **Defines** each of the 5 features of a healthy built environment
- Simple visual graphic for **introducing idea** and **promoting healthy built environments**

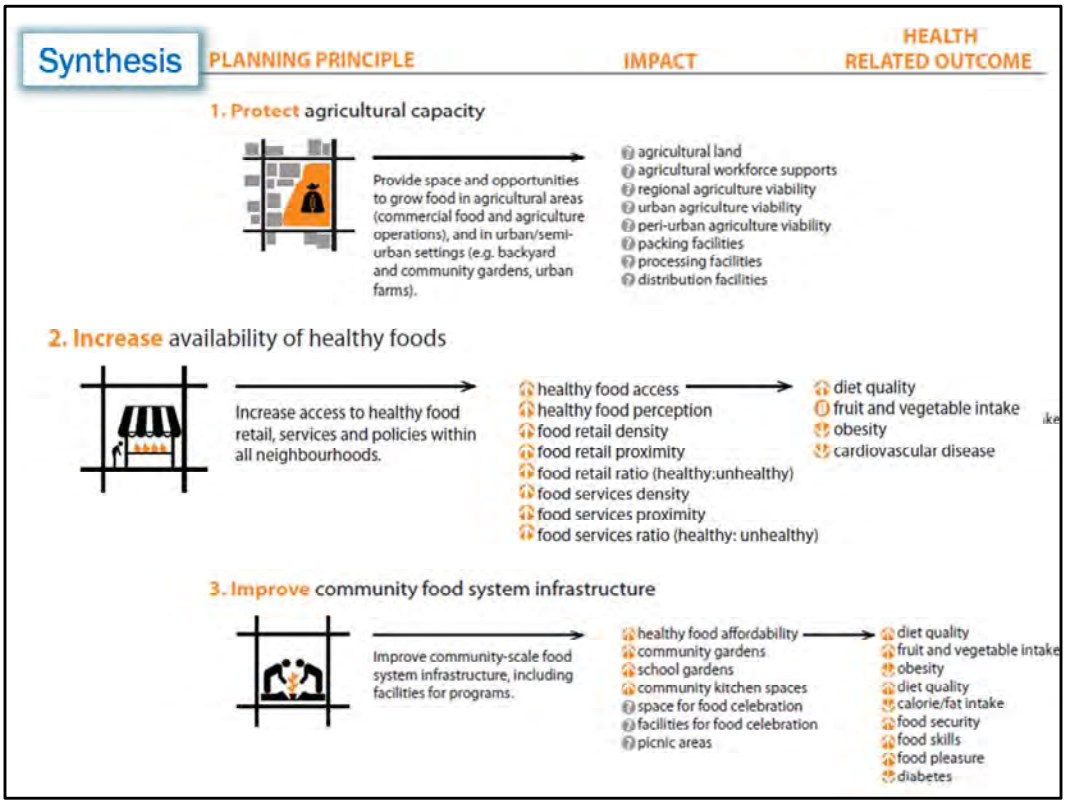


Planning Principles:

•**Audience**: Planners, local government – **One-pager summary** of kinds of things to be done.

•Provides general overview of **main guiding principles for each** of the 5 physical aspects of the built environment

•**Evidence-based, but evidence not presented here**

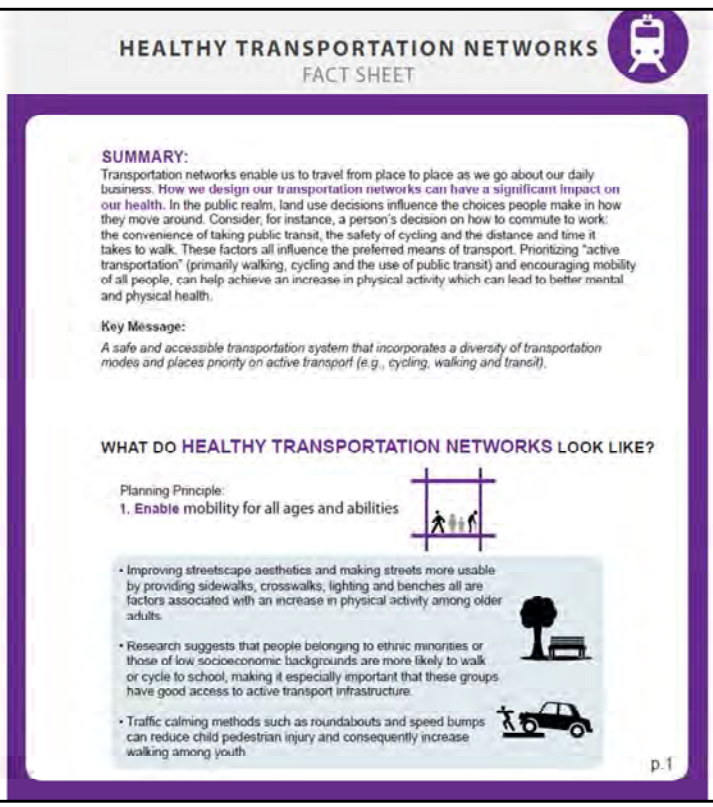


Then we move into sections that are specific to each of the 5 physical features.

Synthesis (1 for each of 5 physical features – this example is food systems):

- **Audience** – planners, local governments, health professionals
- **First introduction to evidence** base – very generalized, high-level overview
- Shows broad relationships
- **Highlights major findings** from evidence

Fact Sheets



HEALTHY TRANSPORTATION NETWORKS
FACT SHEET

SUMMARY:
Transportation networks enable us to travel from place to place as we go about our daily business. How we design our transportation networks can have a significant impact on our health. In the public realm, land use decisions influence the choices people make in how they move around. Consider, for instance, a person's decision on how to commute to work: the convenience of taking public transit, the safety of cycling and the distance and time it takes to walk. These factors all influence the preferred means of transport. Prioritizing "active transportation" (primarily walking, cycling and the use of public transit) and encouraging mobility of all people, can help achieve an increase in physical activity which can lead to better mental and physical health.

Key Message:
A safe and accessible transportation system that incorporates a diversity of transportation modes and places priority on active transport (e.g., cycling, walking and transit).

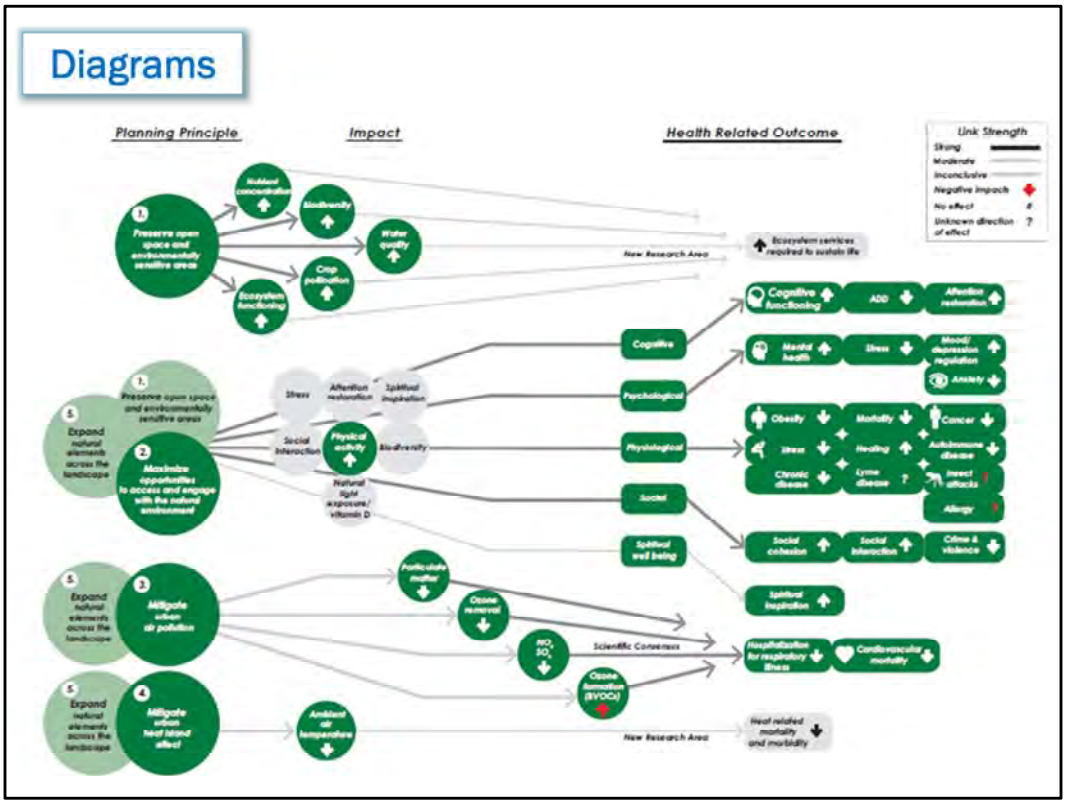
WHAT DO HEALTHY TRANSPORTATION NETWORKS LOOK LIKE?

Planning Principle:
1. Enable mobility for all ages and abilities

- Improving streetscape aesthetics and making streets more usable by providing sidewalks, crosswalks, lighting and benches all are factors associated with an increase in physical activity among older adults.
- Research suggests that people belonging to ethnic minorities or those of low socioeconomic backgrounds are more likely to walk or cycle to school, making it especially important that these groups have good access to active transport infrastructure.
- Traffic calming methods such as roundabouts and speed bumps can reduce child pedestrian injury and consequently increase walking among youth.

p.1

Fact Sheets (for each physical feature – this example is transportation):
Audience: Ministries, MHOs, etc.
•Provides more **nuanced information** about each planning principle
•**Defines terms**
•Brief **details of major studies**
•Includes **caveats** about the evidence
•**Gaps and research needs**
•Other considerations, e.g., context, equity, etc.
•Non-health co-benefits, e.g., sustainability
•**Reference list**



Diagrams (for each physical feature – this example is natural environments):

Audience: health and research

•Shows **links and relationships** – More detailed – intended mostly for health/research audience.

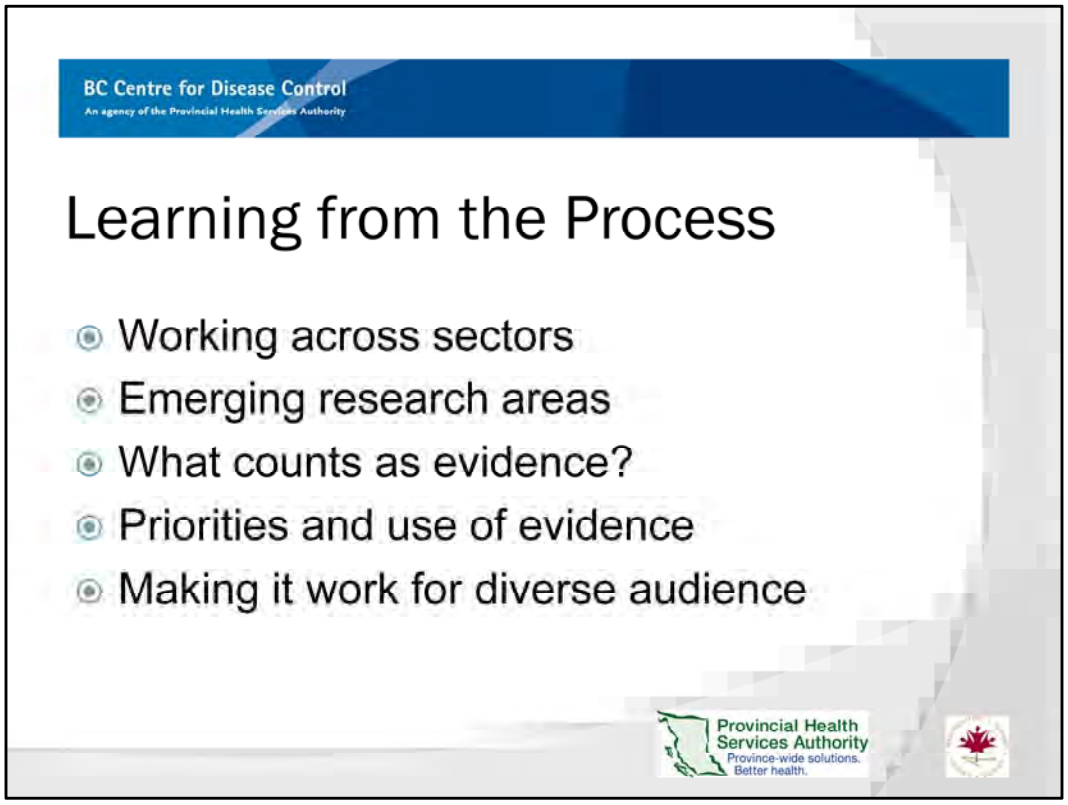
•Lines illustrate strength of evidence

•Arrows and null symbols show direction of effect (association but not causation)

•Highlights where more research is needed

•Includes principles not yet researched – but supported by expert opinion

•Very challenging to show relationships without over-stating level of evidence. Difficult to make strong statements.



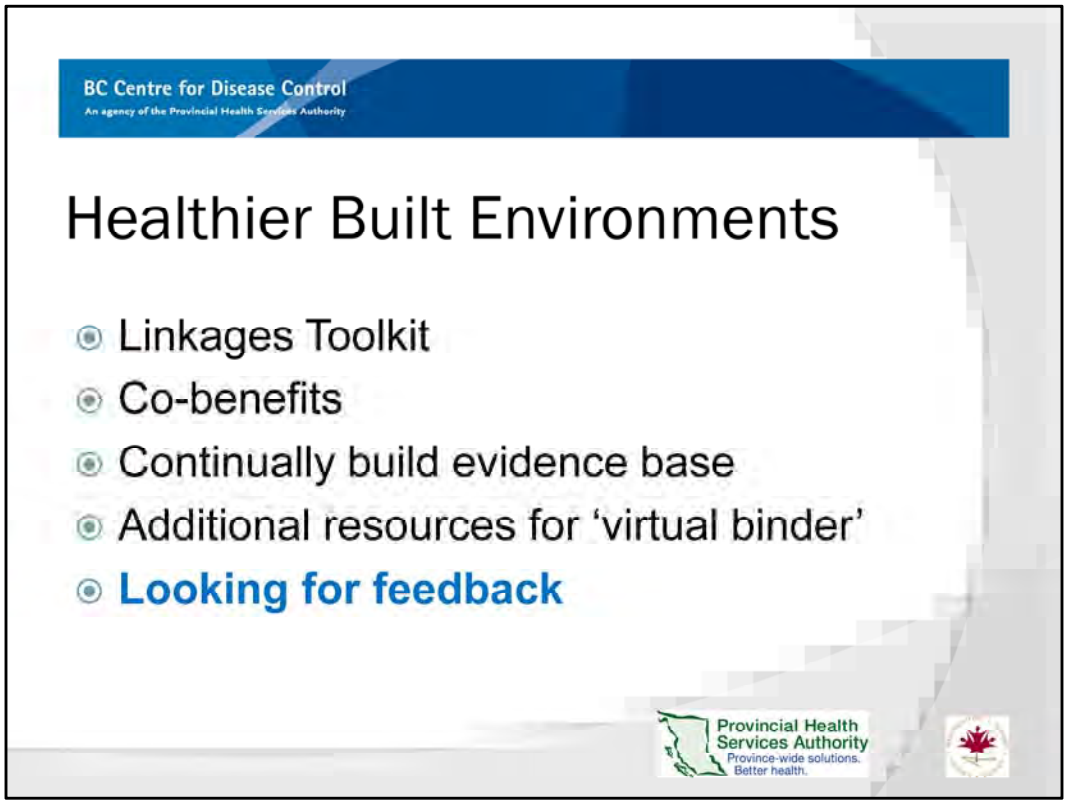
•Cross-sector collaboration particularly valuable for built environment – involves many sectors beyond health
- •Involved very **early on** in process
- •Valuable input from different perspectives – re language, terminology, who influences what, priorities
- •Shaped direction and outcomes of whole project – hopefully more rounded and useful to target audiences

•Emerging area – **Difficult to make strong conclusions** based on current evidence
- •Mostly we used reviews, and **many studies have not yet been reviewed** because too recent.
- •Lack of longitudinal, health outcome studies. Lots of **cross-sectional or ecological designs**.

•Types of evidence:
- •Reviews focus on a certain methodology and type of quantitative evidence. This **leaves out expert knowledge and case studies that can be valuable evidence, particularly for considerations of context, equity, etc.** Much research from non-health fields does not easily fit this model.

•**Different sectors require different levels of evidence for decision making**.
- •Health evidence tends to value very systematic approach.
- •Planners and local governments want to know what works, what seems reasonable, what is practical, what's been done before, and how to do it.

•One product, multiple user groups – e.g., one-pager to hand to city councillor or policy brief for an MHO:
- •Needed **simple, visually appealing** products that show key messages
- •Needed to show **evidence base without getting bogged down** in details
- •**Thus, we use different levels** – increasing complexity as you move throught the *Toolkit*. Excel summaries of evidence review will be available on request.



- Linkages next steps:
  - Develop Introductory text and finalize details for each physical feature
  - Approval by HBEA
  - **Launch late February – Freely available** through distribution lists, post on PlanH website, webinars, conference presentations, etc.

- Co-benefits:
  - Working with Ministry of Environment to clarify co-benefits between health, built environment, and sustainability

- Future research and evidence review to be added to evidence base
  - ***Toolkit* updated periodically**

- Other resources:
  - TBD
  - **PlanH offers more practical implementation advice (how)**, while *Tookit* provides health evidence to back it up (**why**)

- Feedback welcome!

I joined this project midway – many people involved over the last few years.

Especially Lisa Mu, Nas and Michelle, Advisory group members


Thank you!
BC Centre for Disease Control
An agency of the Provincial Health Services Authority
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