Creating more walkable, sustainable communities

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“First we shape the cities – then they shape us”

Jan Gehl - Cities for People
What is health?

Health = “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”

(Who)

Health is a basic and universal human right
Tips to stay healthy

12 THINGS you can do to stay healthy

1. drink enough water
2. think positive
3. eat well
4. laugh a little
5. turn off the TV
6. watch your weight
7. focus on fitness
8. don't smoke
9. manage stress
10. chill out
11. don't skip check-ups
12. get enough sleep

Five tips to stay healthy

01. Be physically active for 30 minutes most days of the week. Break this up into those 10-minute sessions when pressed for time. Healthy movement may include walking, sports, dancing, yoga, running or other activities you enjoy.

02. Focus on good nutrition. Eating well can be both enjoyable and affordable, but it requires a level of thoughtfulness about foods of all types. What we eat is much more important than how much we eat. Be mindful about what you eat.

03. Put it out. Stopping smoking is often the single most effective thing that you can do to reduce your risk of future illness. Smoking causes lung cancer and other cancers, and increases your risk of heart disease and a stroke.

04. Pursue balance. Practice and pursue harmony and balance in life, between work and play, between rest (sleep is important) and activity, and across the spectrum of mind, body, and spirit.

05. Drink lots of water. You've heard this before, staying hydrated is very important. Dehydration can cause headaches, dizziness, among other things. Try setting a timer to remind you to grab a glass of water.
Social determinants of health

• Health is not just an issue of freely chosen individual lifestyle choices

• Health is shaped by numerous physical, social, economic and political factors outside of the health sector

• Social determinants of health = “the circumstances in which people are born, grow up, live, work and age”
Ecological model of health

- Age, sex and constitutional factors
- Individual lifestyle factors
- Social and community networks
- Living and working conditions
- General socio-economic, cultural and environmental conditions
Built environment as a health determinant

• The way cities are planned, built and managed has a powerful impact on health risk factors and outcomes.

• The built environment affects people’s behaviour and lifestyles,

• and the social, educational and economic opportunities available.
How to stay healthy?
How much physical activity?

Adults are encouraged to:

• accumulate 150 to 300 minutes of moderate intensity physical activity;

• or 75 to 150 minutes of vigorous intensity physical activity;

• or an equivalent combination of both moderate and vigorous activities, each week;

• be active on most, preferably all, days every week;
• do muscle strengthening activities on at least two days each week;

• minimise the amount of time spent in prolonged sitting; and
• break up long periods of sitting as often as possible.
Active travel
How is it healthy?

When individuals undertake sufficient physical activity it improves:

• Muscular and cardiorespiratory fitness;

• Bone and functional health;

• Energy balance and weight control; and

• Lower risk of hypertension, coronary heart disease, stroke, diabetes, breast and colon cancer and depression
Co-benefits

OVER 500 FINDINGS SUPPORT
THE BENEFITS OF CITIES DESIGNED TO MOVE

ECONOMIC
BUSINESS AND JOB GROWTH
INCREASED TAX REVENUE
LESS TRAFFIC, MORE PRODUCTIVITY

SAFETY
LESS CRIME
LOWER RATES OF PEDESTRIAN AND CYCLIST INJURIES

ENVIRONMENTAL
REDUCED EMISSIONS
IMPROVED AIR QUALITY

HEALTH
LESS DEPRESSION, STRESS AND CHRONIC DISEASE

SOCIAL
INCREASED CIVIC ENGAGEMENT AND VOLUNTEERISM
However...

- Physical inactivity is the fifth leading contributor to the disease burden.

- Almost 60 per cent of Australians aged 15 years or older being insufficiently active to benefit health.

- In Australia, only 4% of the workforce commutes by walking and only 1% by cycling.

- The number of children walking or cycling to school has halved over the past 40 years.

- Less than a third of Australian children now regularly walk or cycle to school.
“Globally, physical inactivity causes 3 million deaths per year. One of the most effective means of increasing physical activity is through urban planning and transport policies” (World Health Organization, 2009)

Planning and designing environments for active living
Walkability

• A measure of how well the built environment supports walking

• Typically, built environment attributes are studied in combination by means of composite measures or indices

• The most common is the “walkability index”

• It combines three variables:

  1. Land Use Mix (something to walk too)
  2. Road Connectivity (a way to get there);
  3. Housing Density (more housing supply in walkable areas)
Walkability Index by Giles-Corti et al. 2013
Features of an active city

- Transportation network that supports physical activity;
- Easy access to shops, services and transit;
- Easy access to sport and recreational facilities;
- Easy access to public open spaces;
- Safe and aesthetically pleasing environments.
Transport networks that support physical activity

- Pedestrian and cycling infrastructure
- Footpaths, pedestrian crossings, signage
- Separated bike lanes and paths
- Bike parking and facilities
- Traffic calming
- Access to transit
- People can walk or cycle to and from stations and stops
- Walkable community design
Melbourne's ambition to make Melbourne an active city
Planning Support Systems
This SimCity-Like Tool Lets Urban Planners See The Potential Impact Of Their Ideas

UrbanFootprint makes it easy to run simulations to see how a new plan might change traffic and commute times, the ability of kids to walk to school, access to jobs, energy use, the local economy, health, and carbon emissions.
What?

- Computer-based simulation tools
- Turn data into meaningful and useful information
- Support evidence-based planning
Why do we need simulation tools?

- Understand the context
- Test intervention scenarios
- Smooth transition to operation
- Reduce risks
- Refine scenarios
What can you do with a PSS?

- Model development feasibility on a site-by-site basis
- Create and evaluate multiple land use scenarios
- Test and refine transportation plans
- Produce small-area concept plans
- Model complex regional issues
Some case studies…
How do the tools work?

Spatial data is accessed from the geodatabase.

Planners sketch a series of planning scenario on the map display.

Custom formulas process information from the maps.

Interactive charts present performance indicators for each scenario.
Western Australia 2017 – in partnership with LandCorp
The health and economic benefits of building walkable neighbourhoods: A modelled comparison between brown
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Thank you!

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