

Smart Metropolia / 14 November, 2017

Planning public space and city development for happiness

Marten Sims, European operations lead

What is the connection between urban design and happiness?

Chicago, 1995

What are the effects of urban design on population health and wellbeing during an epidemic?

1995 heat wave



Roads buckled



Fire hydrants + rocks



Saturday 13th of July

42°C

A photograph of four people playing in a water fountain. The water is splashing everywhere, creating a misty atmosphere. The people are wearing casual summer clothes like t-shirts and shorts. The background shows some greenery and a paved area.

In just three days

700+



Refridgerated trucks



Jan Semenza, Centers for Disease Control and Prevention (CDC)



Insight

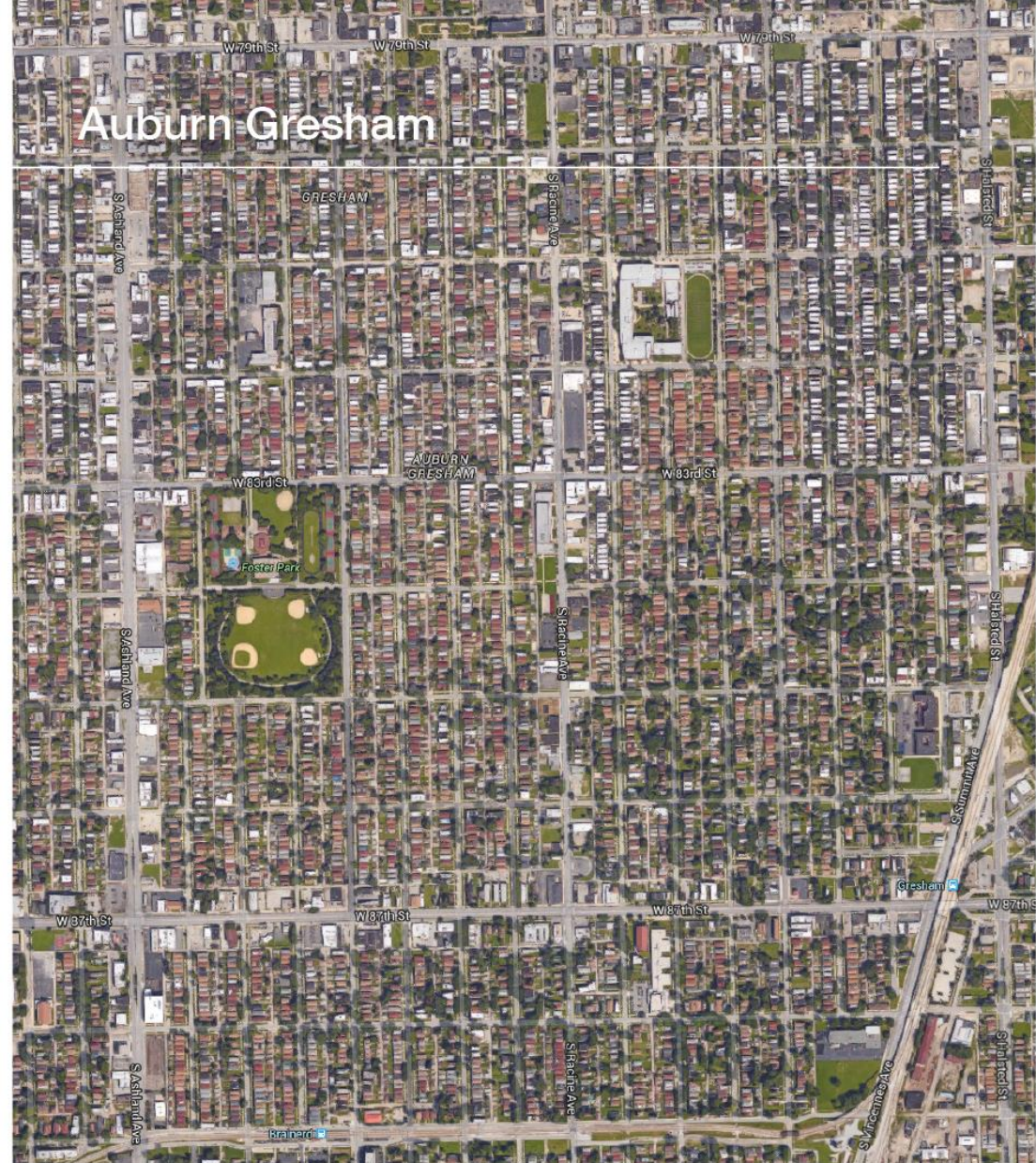
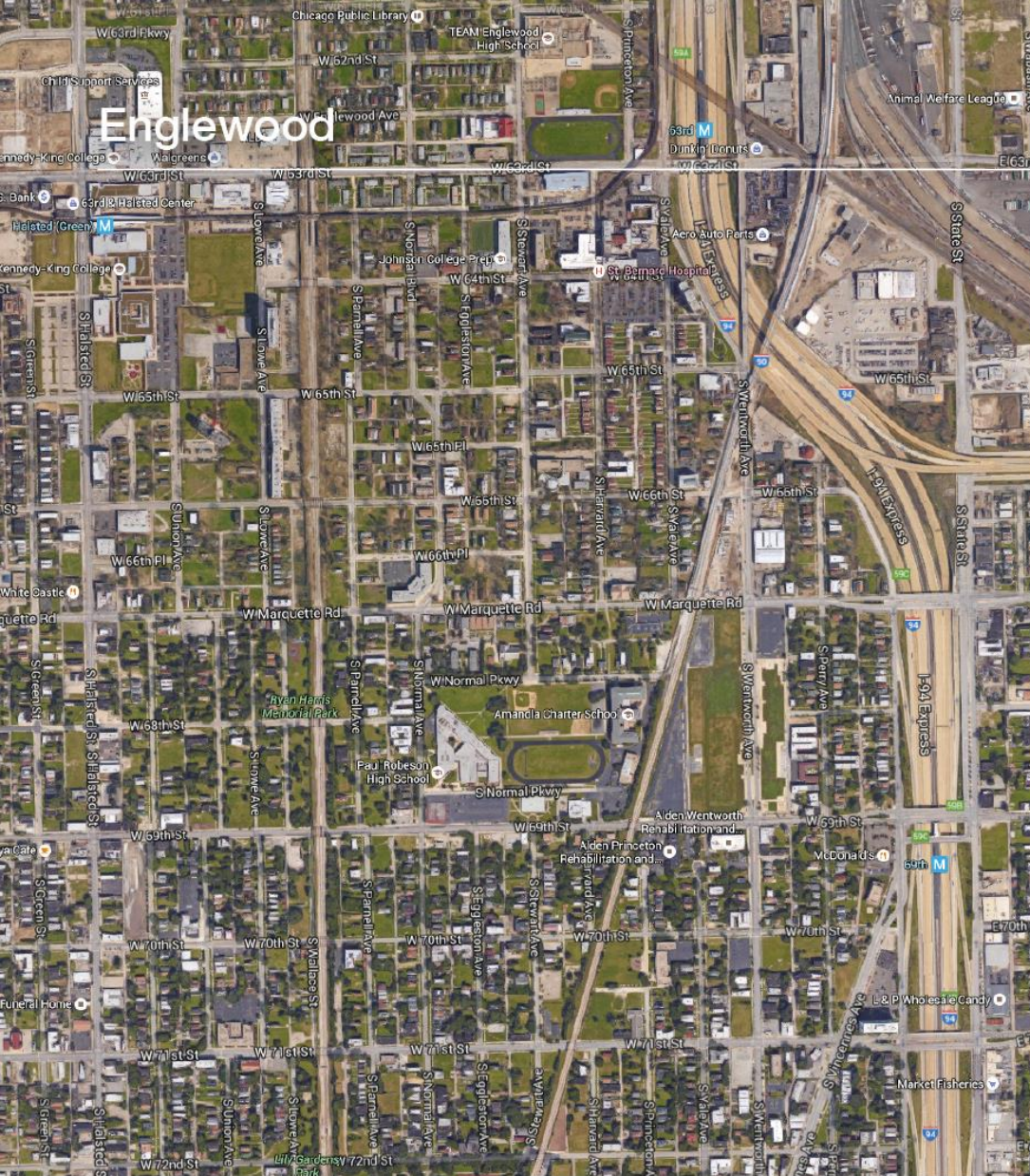
Alone

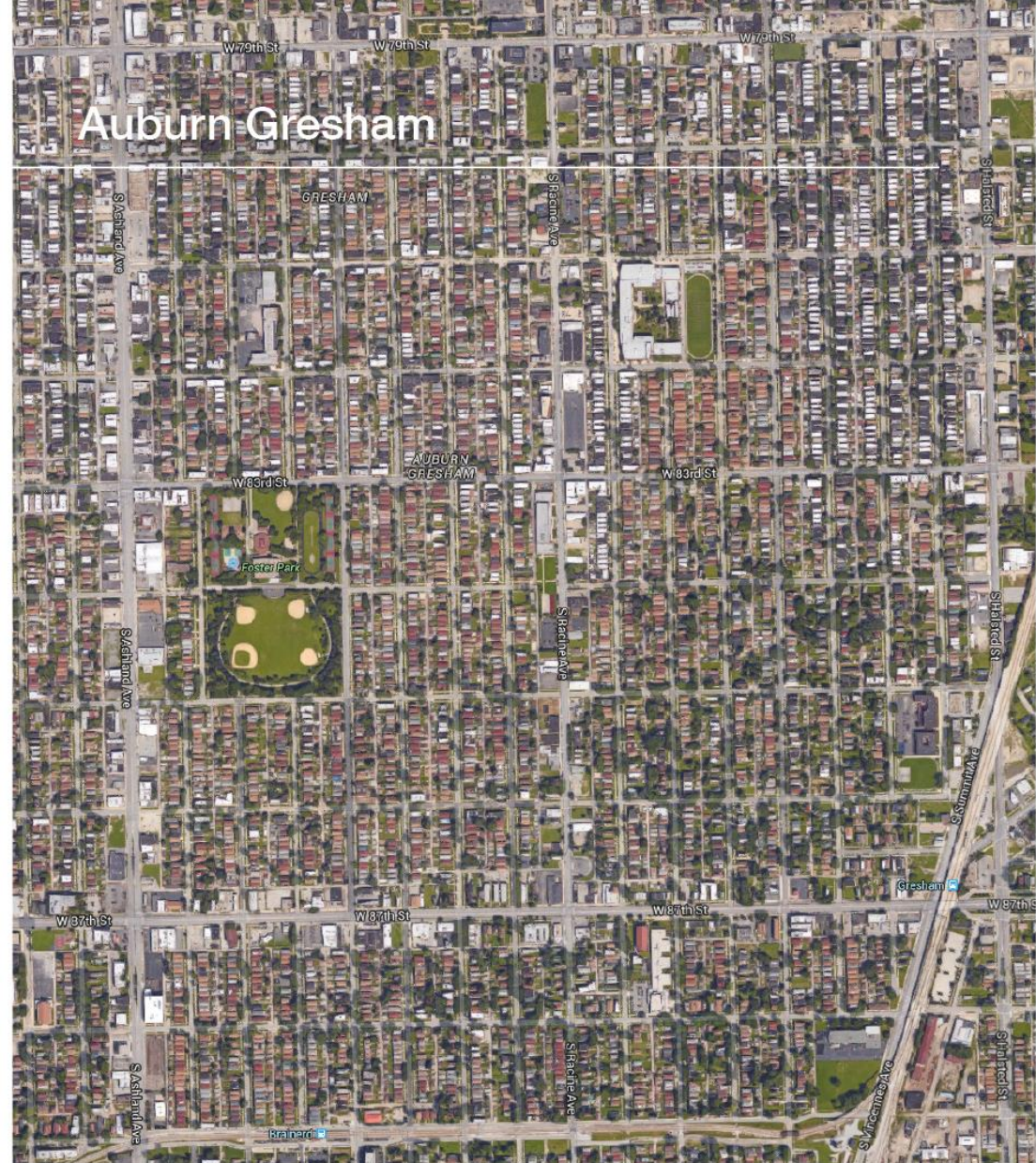


Question

What is the
root-cause of the
disconnected city?











Less urban mix =

More urban mix =



MORE LIKELY TO DIE

LESS LIKELY TO DIE

Auburn Gresham = Super-social



We believe

Cities design how
**we connect, move
and feel.**

Evidence-based

Public health



Evidence-based

Public health

Environmental
Psychology



Evidence-based

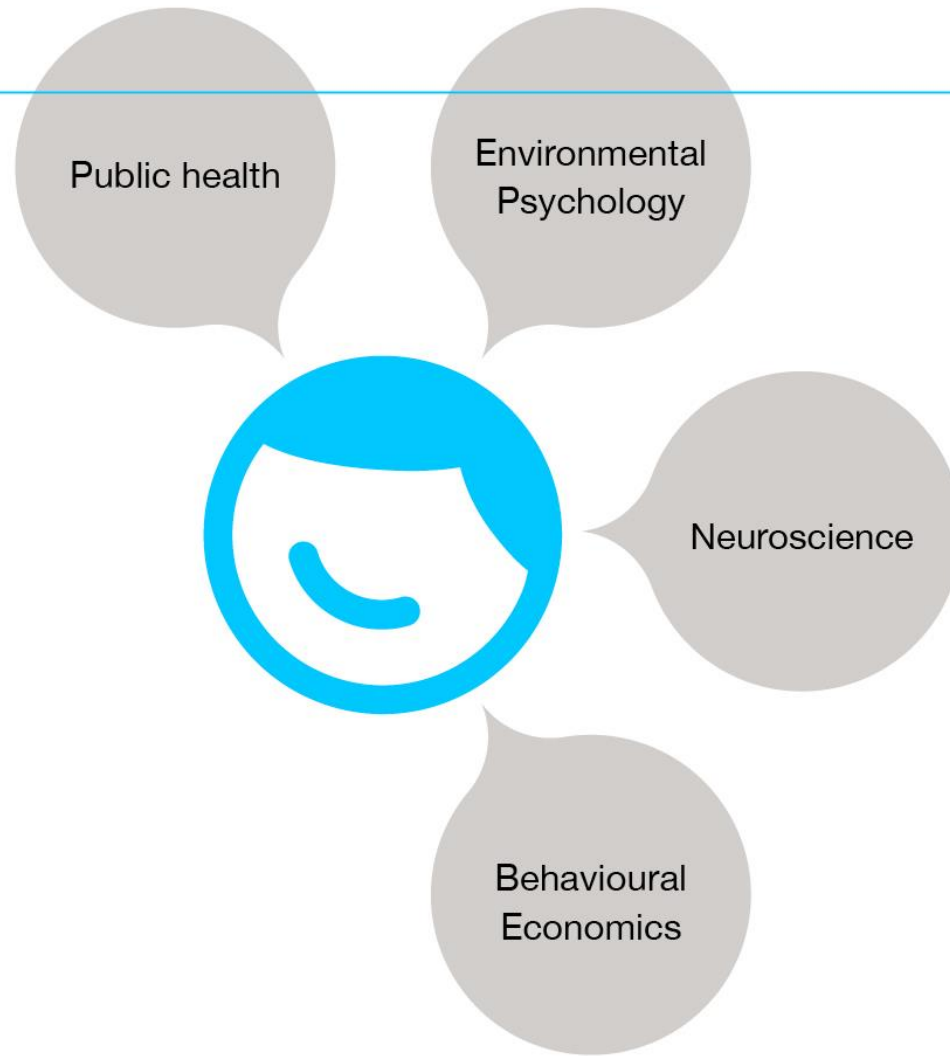
Public health

Environmental
Psychology

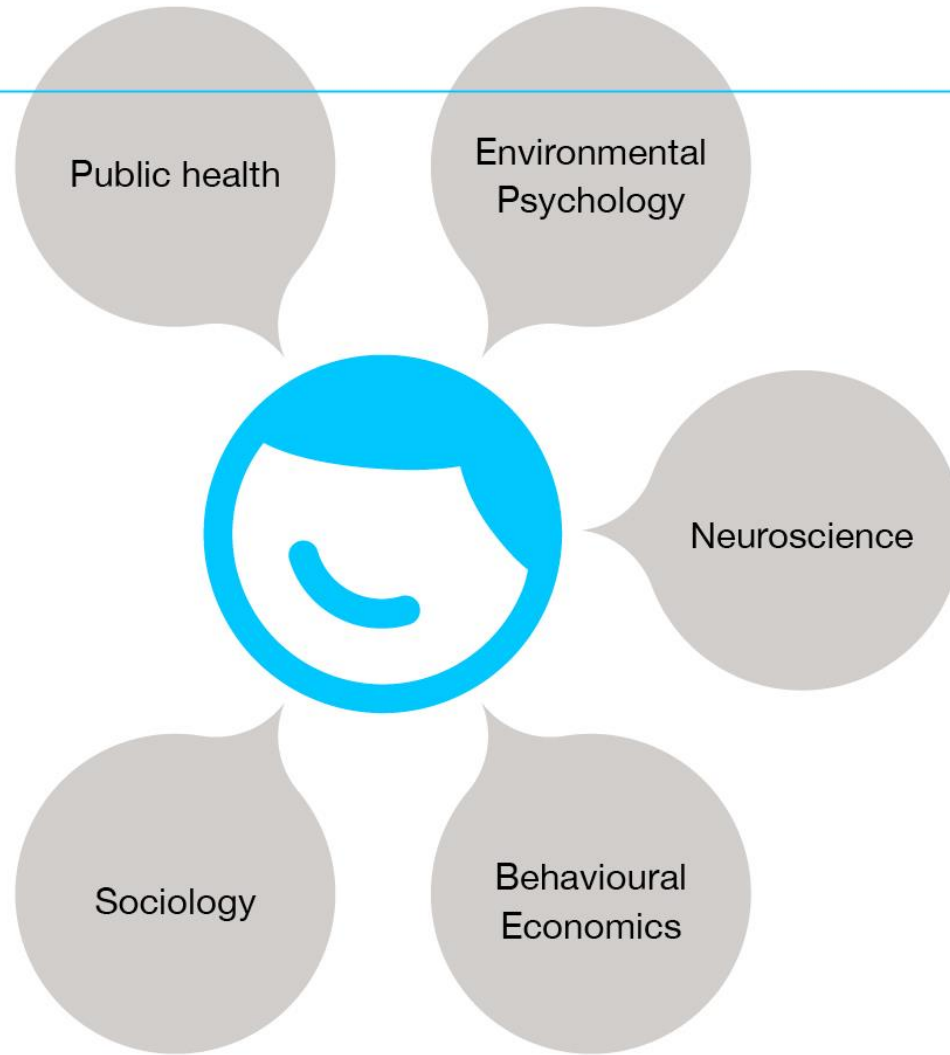
Neuroscience



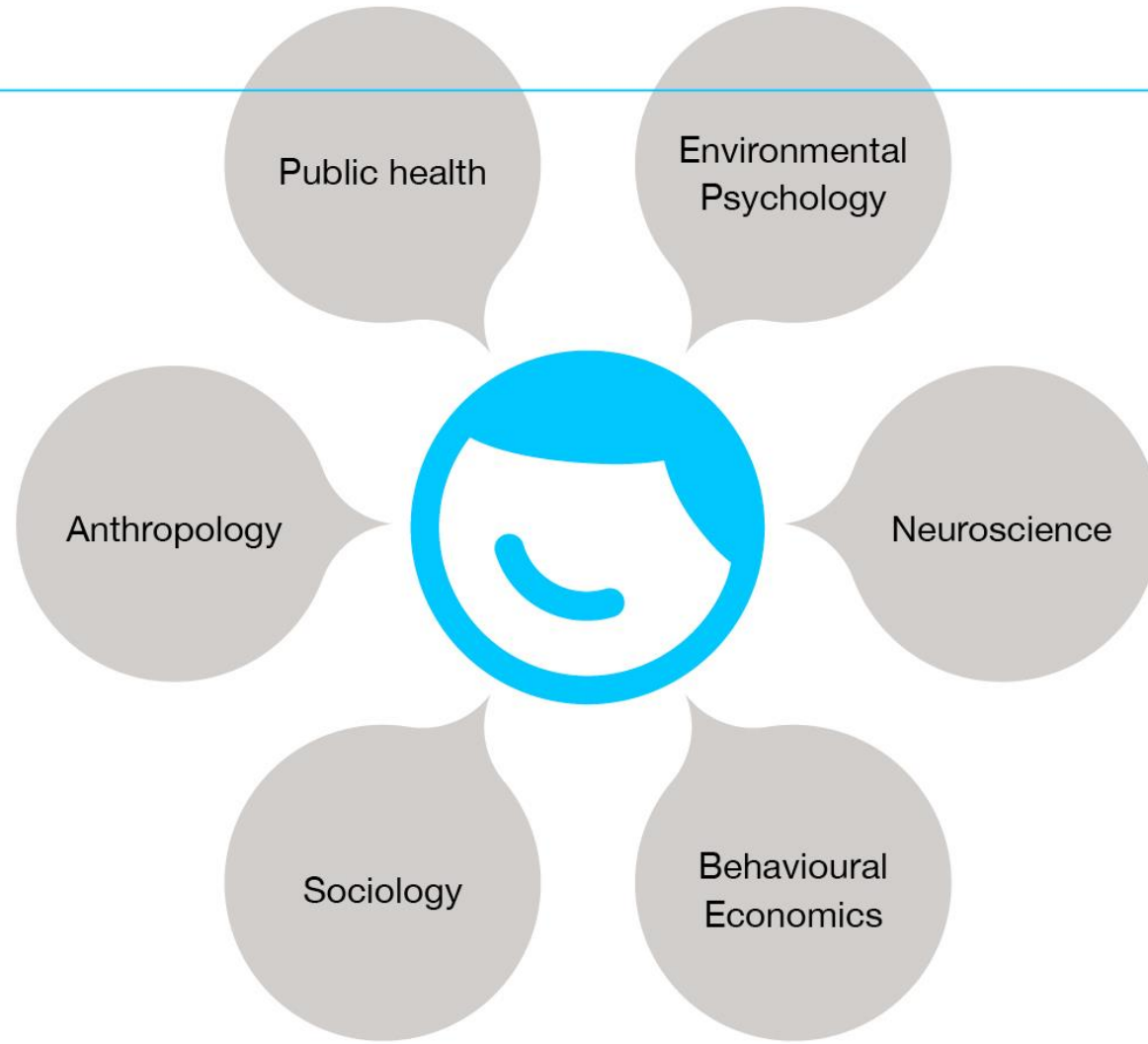
Evidence-based



Evidence-based



Evidence-based



Engaged City Task Force

Vancouverites are disconnected from one another
and disengaged from local political engagement.

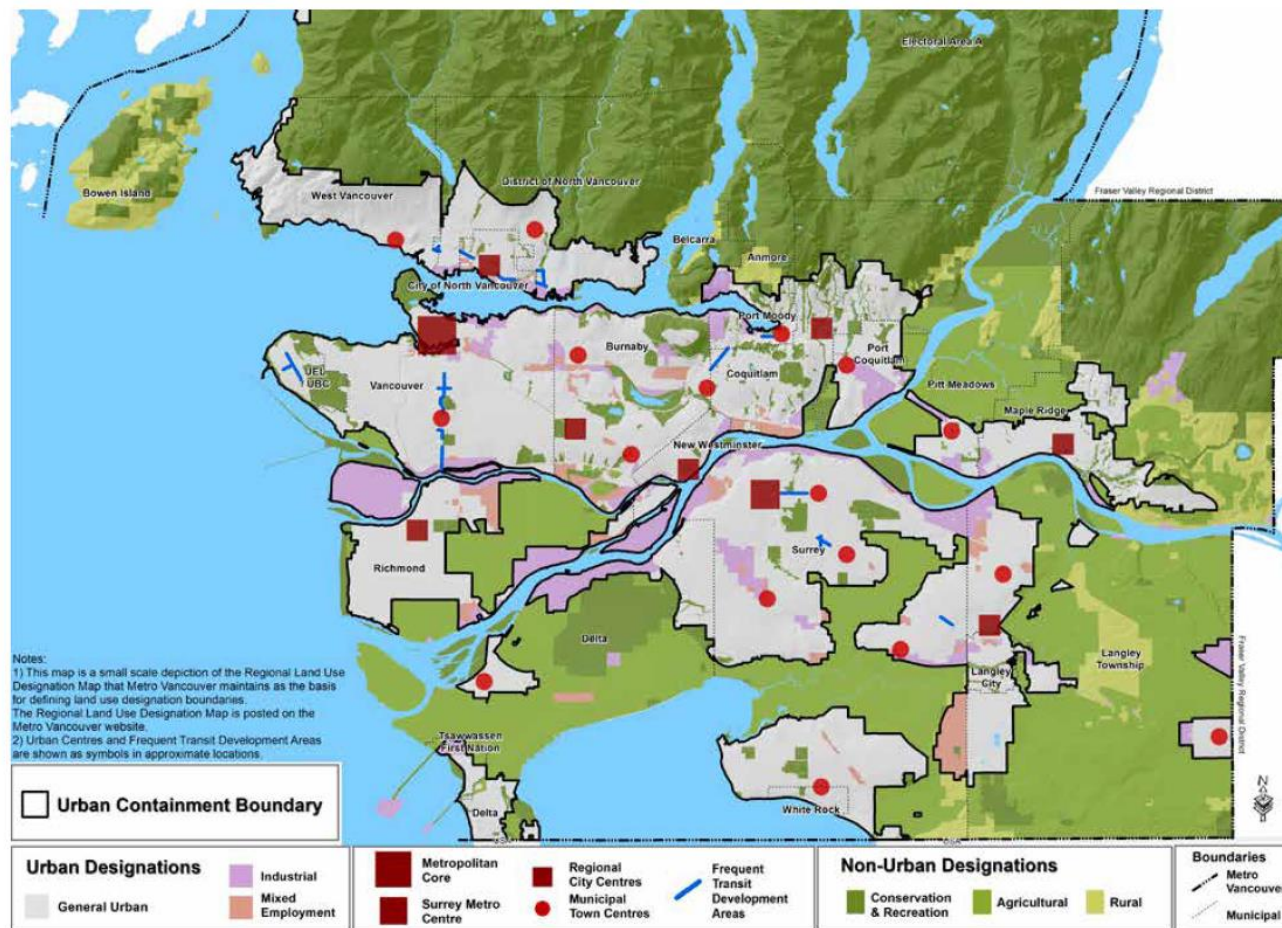
Metro Vancouver, Canada



Metro Vancouver, Canada

- 21 municipalities
- One treaty first nation
- One electoral area
- Working together for a 'Livable Region'

Village of Anmore
Village of Belcarra
City of Burnaby
City of Coquitlam
Corporation of Delta
City of Langley
Township of Langley
Village of Lions Bay
District of Maple Ridge
City of New Westminster
City of North Vancouver
District of North Vancouver
City of Pitt Meadows
City of Port Coquitlam
City of Port Moody
City of Richmond
City of Surrey
Tsawwassen First Nation
City of Vancouver
District of West Vancouver
City of White Rock
Fraser Valley Regional District
Squamish-Lillooet Regional District



Connections and Engagement



A survey of metro Vancouver
June 2012

vancouver
foundation

Connections and Engagement A Closer Look



The consequences of loneliness

Vancouver Foundation's survey found that metro Vancouver can be a challenging place to make new friends. One in three people say it is hard to make new friends here. And one in four say they are alone more often than they would like to be.

When we first released these findings, particularly the one about loneliness, a common reaction was, "This means 75 per cent of us are not lonely, so what's the problem?" We learned it is a bit more complicated. First of all, only 52% say they don't feel lonely, while 24% "neither agree or disagree" or "didn't know" if they were alone more often than they wanted to be.

As well, the data gives us insight into the consequences of loneliness — for individuals and for the community. It turns out that feeling lonely is linked to a series of negative attitudes that could have an impact on the entire community.

Key findings

- Those who are lonely or experience difficulty making new friends are much less trusting of others, feel less cohesion with their neighbours and are much less likely to feel a sense of connection to the broader community.
- Attitudes toward community harden among the most isolated.

As a community, we would be concerned with a statistic that shows 25 per cent of our population suffering from any particular condition. Yet we tend to look at loneliness as inconsequential to anyone but the person feeling it. Our survey shows that loneliness has negative consequences for the entire community. When people feel lonely, they are also more likely to feel unwelcome in their neighbourhood and skeptical about community trust. As well, these residents are less likely to participate in activities that make their community a better place to live.

In other words, loneliness infects so many other aspects of a person's approach to their community. We should not ignore these members of our community, and should look for ways to enhance their connection to other residents.



Survey Results / While social networks were big...



Survey Results / People feel lonely



52%

‘I don’t feel lonely’

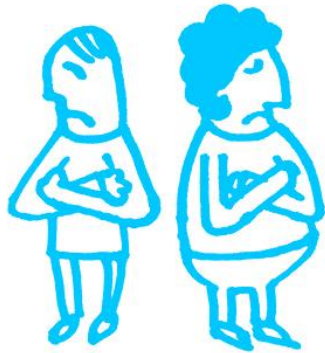


24%

‘I am alone more often
than I would like to be’

“Loneliness has **negative consequences for the entire community**. When people feel lonely, they are more likely to feel unwelcome in their neighbourhood and skeptical about community trust. They are **less likely** to participate in activities that **make their community a better place to live.**”

Survey Results / The negative consequences of loneliness



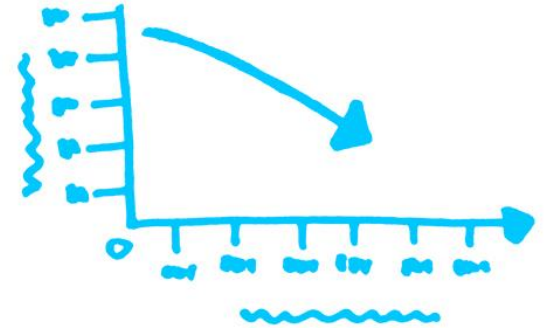
Negative or pessimistic attitudes:

- Indifference to neighbours
- Mistrust of others and politicians
- Attitudes towards community harden among the most isolated



Decreased wellbeing, poor mental + physical health:

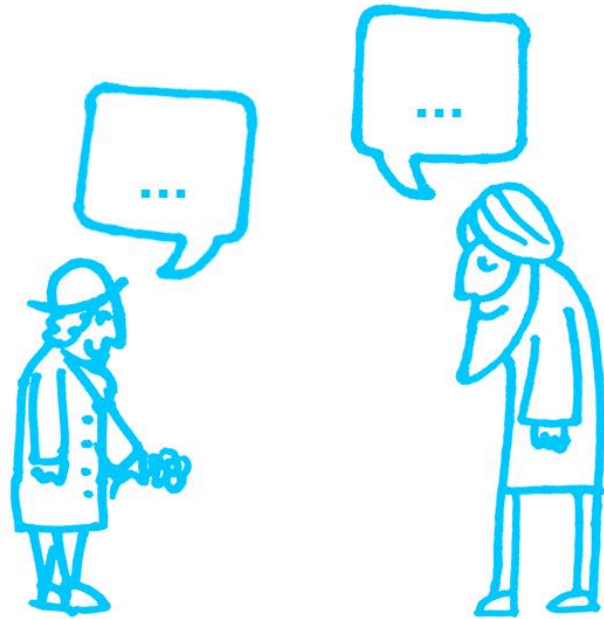
- Heart attacks
- Strokes
- Cancer
- Depression
- Increased risk of dementia
- Sleeping problems



Decreased showing up:

- Vote less
- Give less
- Volunteer less
- Join less
- Care less

Survey Results



“I don’t have anything to offer.”

Metro Vancouver, Canada

Degree of Danger

Hazard Value

Value

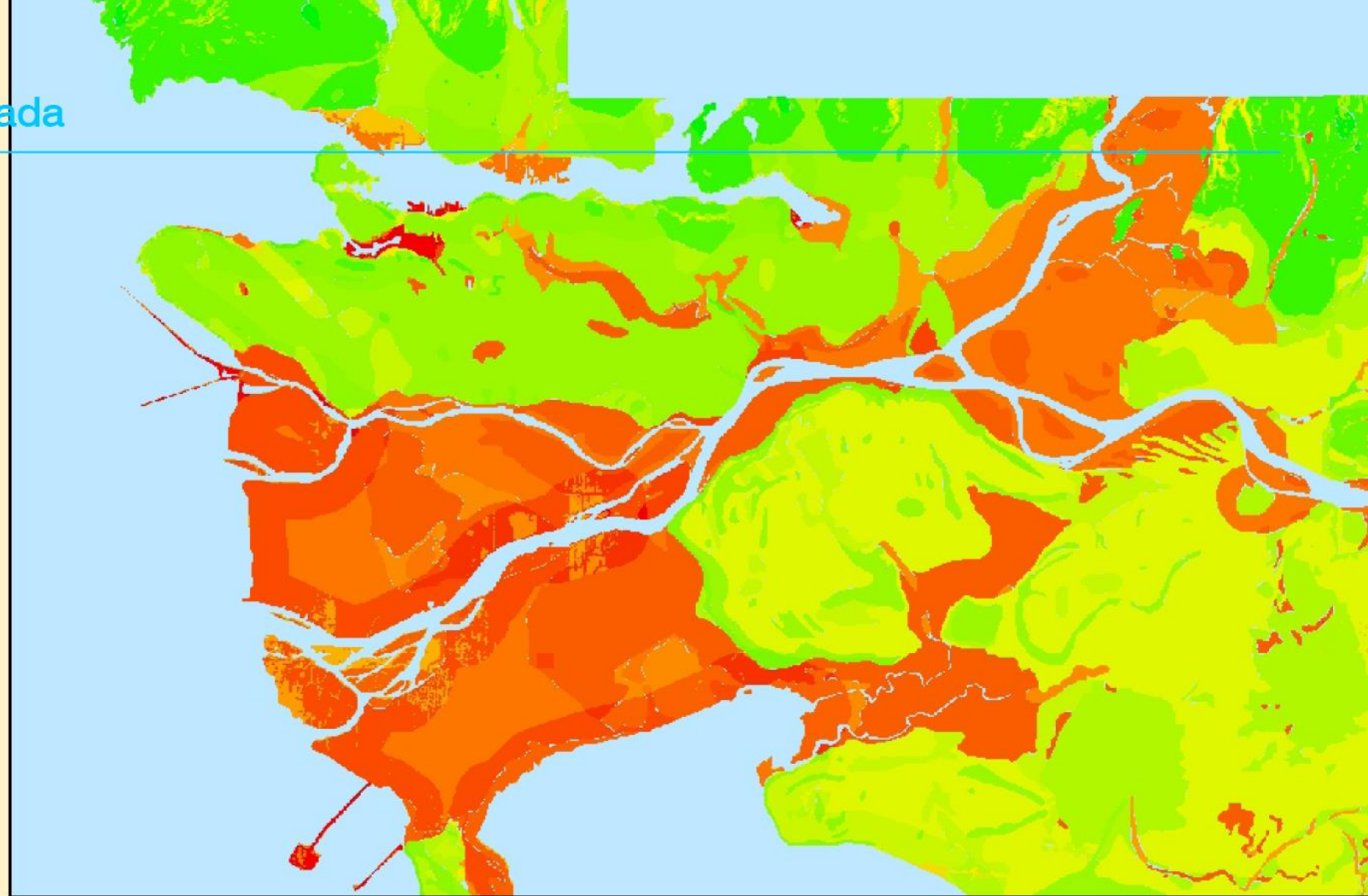


High : 7.000000

Low : 1.250000



0 2.5 5 10 15 20 Km



Geography 376 - Final Project
Date Created: November 2005

Terence Barretto
Patrick Bond
Ryan Ko

GVRD: Earthquake Hazard Map

(Takes Into Account: Earthquake Intensity, Landslides, Tsunami/Flood, Liquefaction Hazards)

Source: UBC Dept. of Geography:
- GVRD DEM Data, GVRD Boundaries
- Natural Resources Canada Geomap 2005
<http://gsc.nrcan.gc.ca>
- North Shore Emergency Management Office
<http://www.nsemo.org>
Map Projection NAD 1983 UTM Zone 10N

Insight

Alone



“An ounce of **prevention**
is worth a pound of **cure.**”

Engaged City Task Force / First Meeting, 2012



Engaged City Task Force / Mandate

1

Improving civic government-to-resident and resident-to-civic government engagement.



2

Improving neighbour-to-neighbour relationships and engagement.

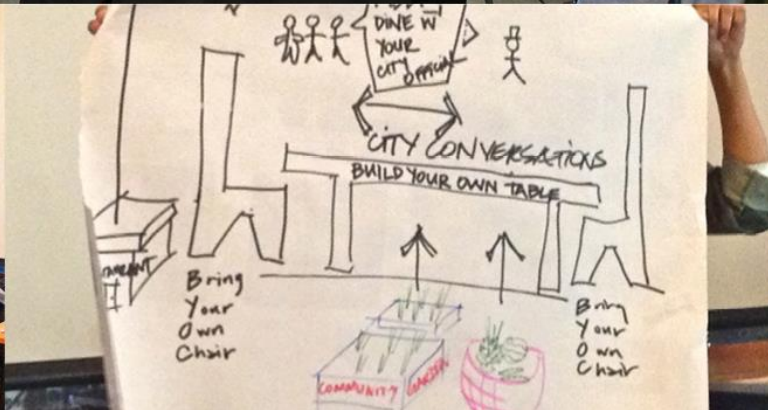


3

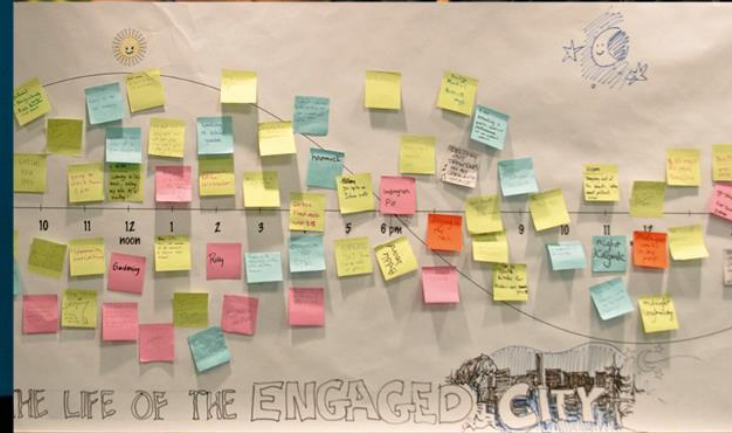
Communicating and engaging the community in the work of the Task Force.



Engaged City Task Force / Public Engagements



Engaged City Task Force / Public Engagements



Engaged City Task Force / Public Engagements



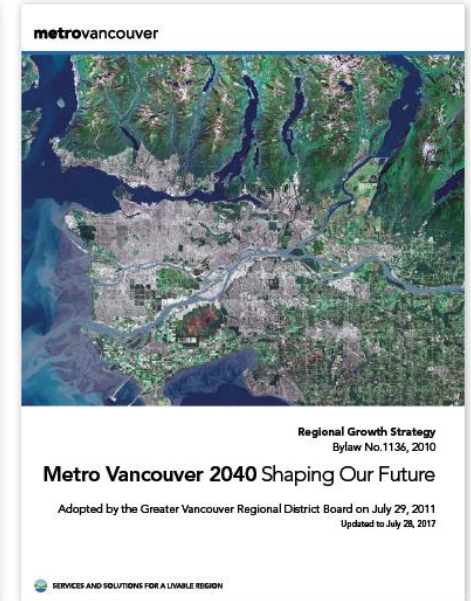
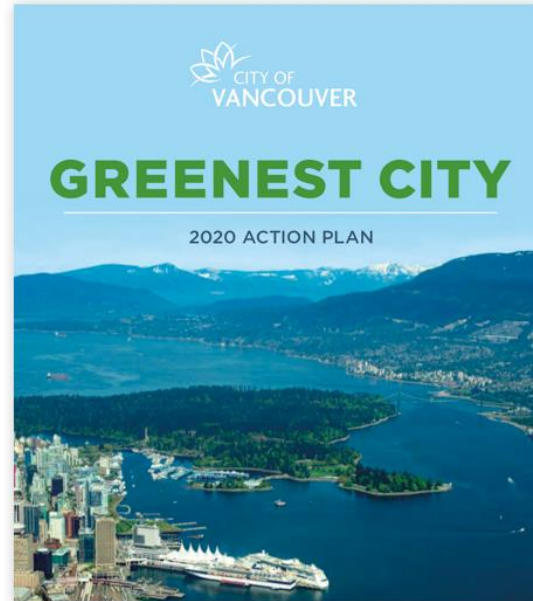
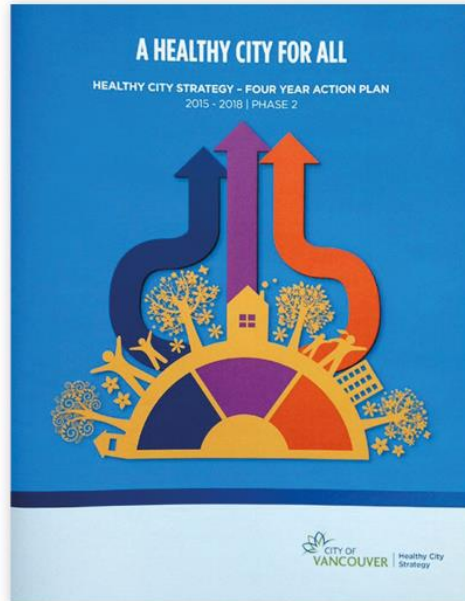
Engaged City Task Force / Presentation to council



Engaged City Task Force / Publicly-accessible outcomes



Reports + Recommendations



Lost tourist test

How do specific environments effect our kindness,
trust and willingness to assist a lost tourist?

Instructions: stand with map, look lost, wait.



Example sites

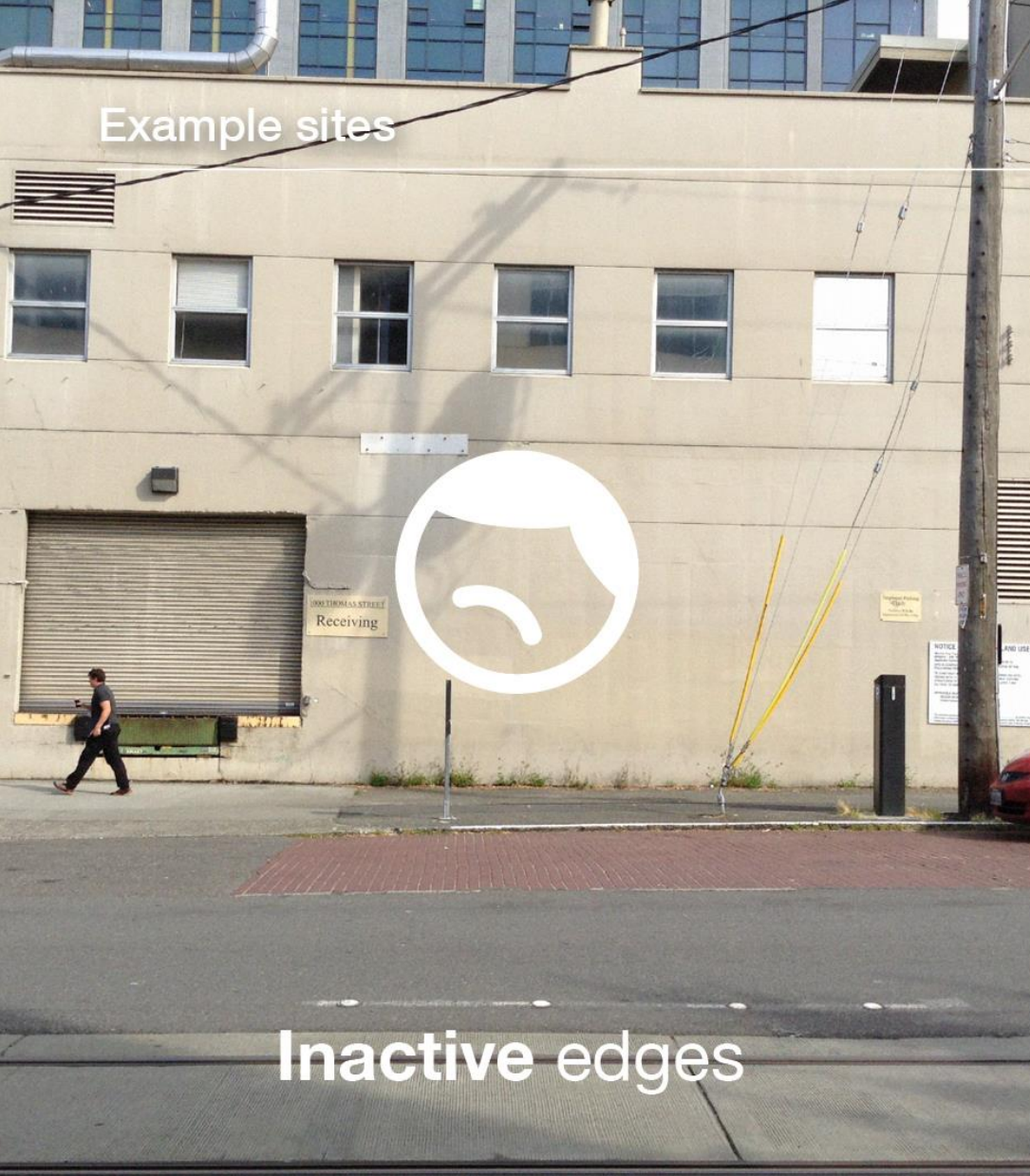


Inactive edges

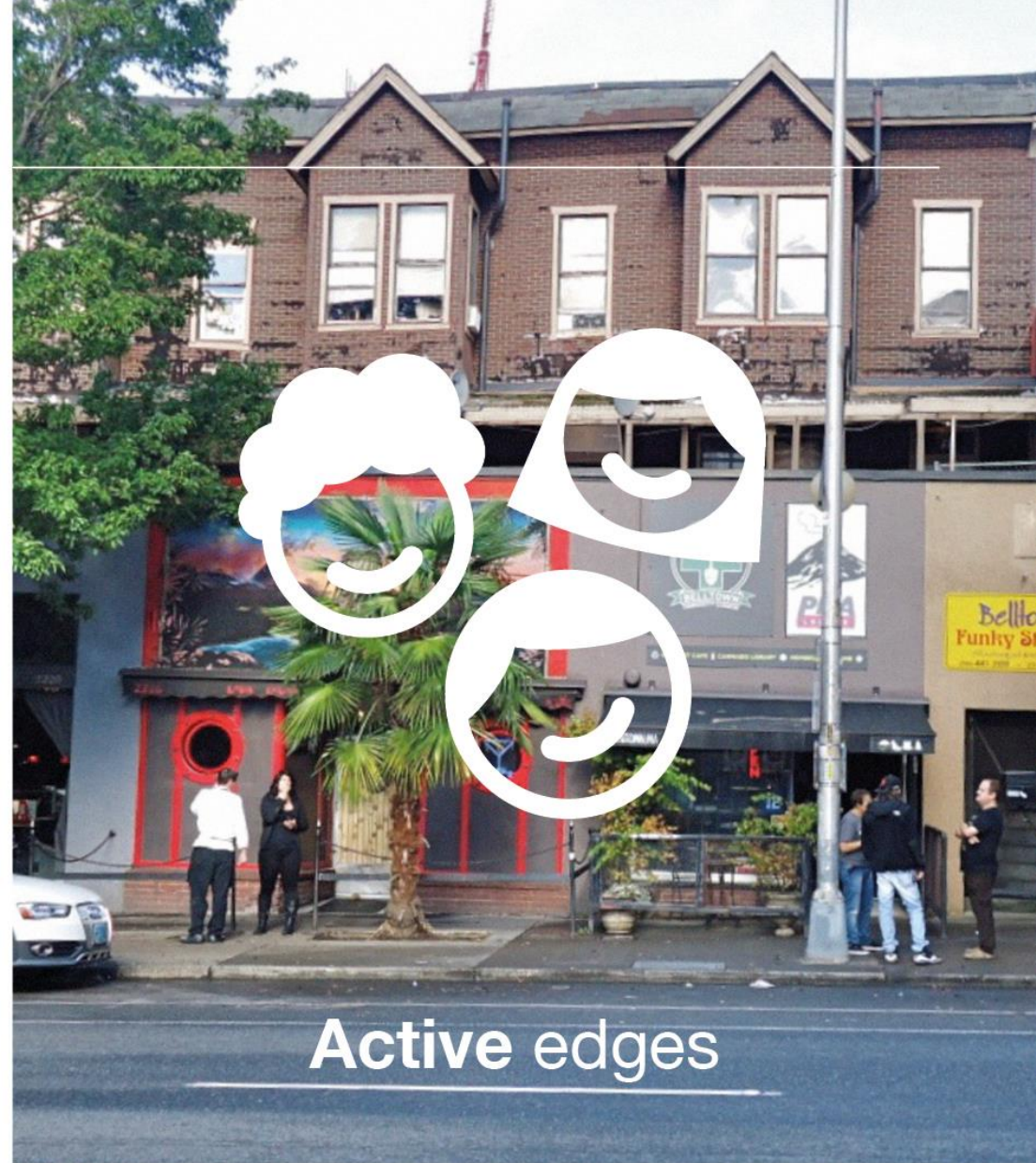


Active edges

Example sites



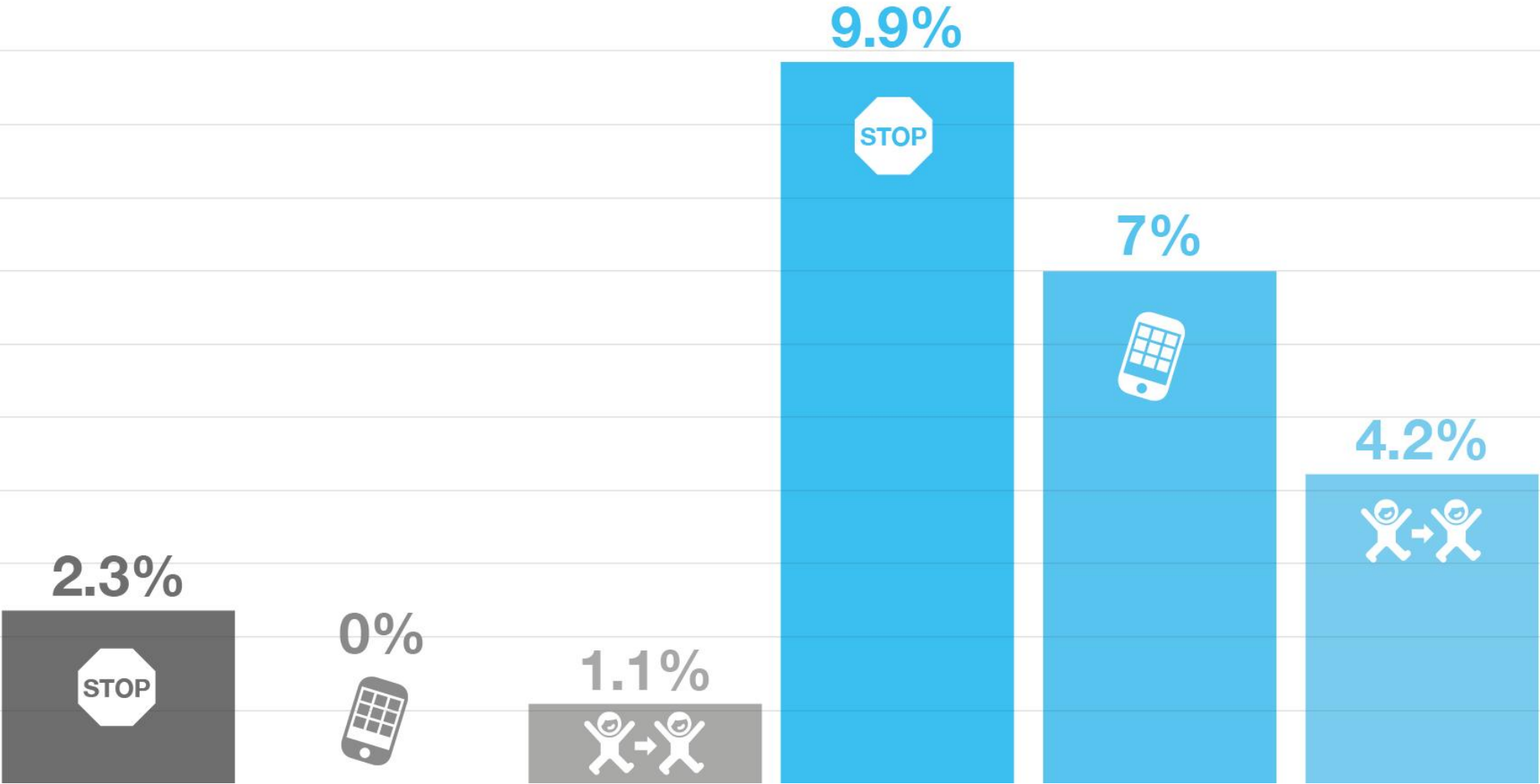
Inactive edges



Active edges

Inactive edge results

Active edge results



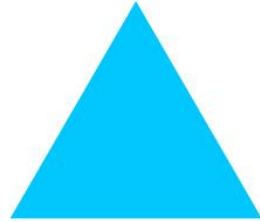
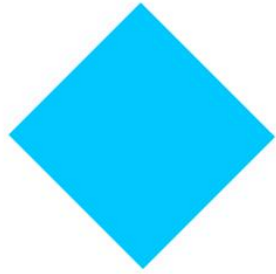
Also...



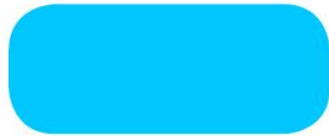
Also...



Neuroscientists tell us:



Fear +
Aversion



Calm +
Cheer

Our brain processes our surroundings...



Our brain processes our surroundings...

Do I
feel **safe**?



Our brain processes our surroundings...

Do I
feel **safe**?

Do I need to
prepare for
confrontation?



Our brain processes our surroundings...

Do I
feel **safe**?

Do I need to
prepare for
confrontation?

Should I
put up my
guard?



Our brain processes our surroundings...

Do I
feel **safe**?

Do I need to
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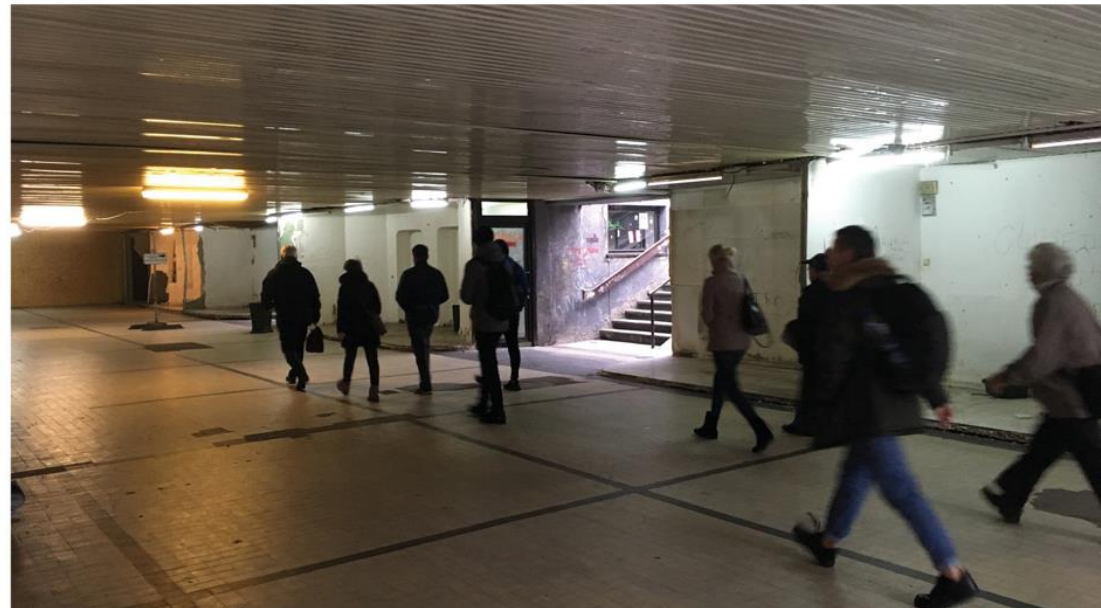
Can I be
more open?



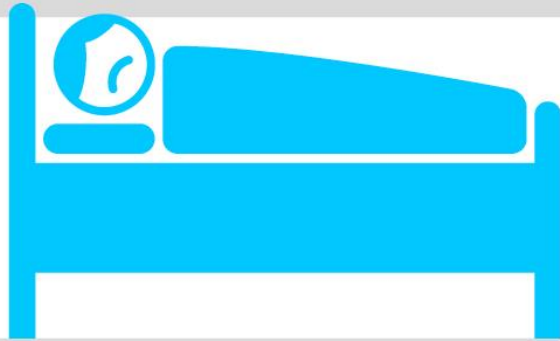
Gdansk / active edges



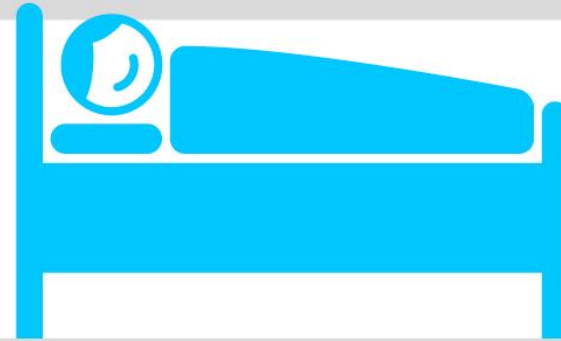
Gdansk / inactive



Views of bricks

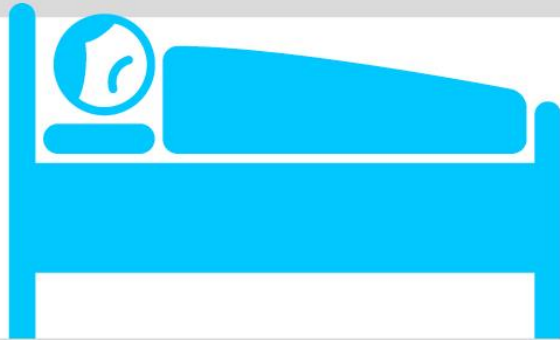
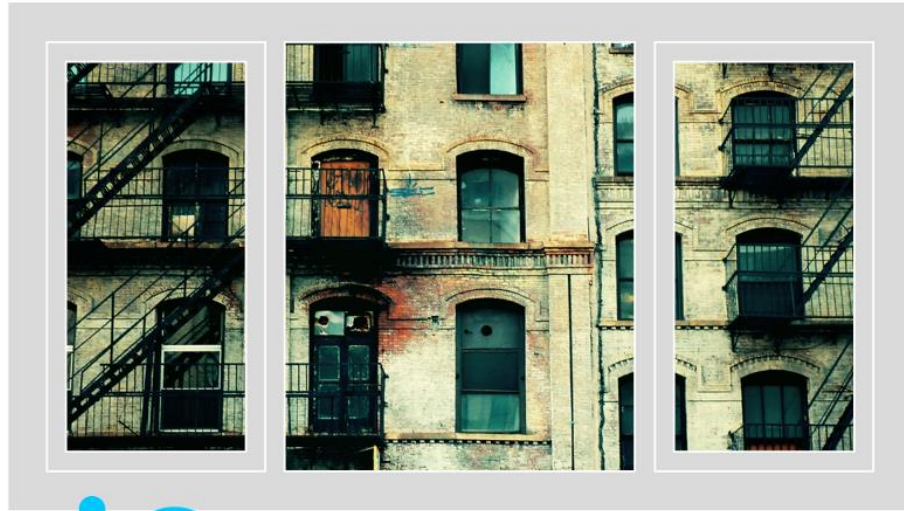


Views of nature

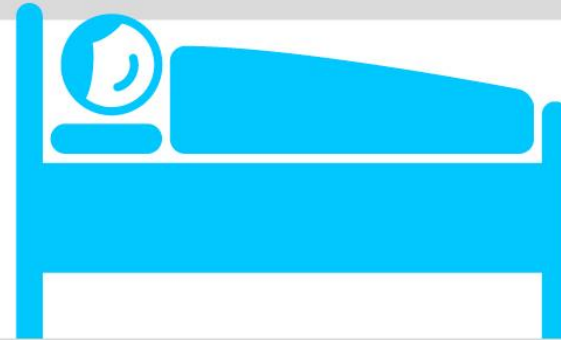


10 year study of patients in Pennsylvania

Views of bricks



Views of nature



10 year study of patients in Pennsylvania

Rural areas = Access to greenery + nature



Cities = Grey stone + barriers



Colour! It really matters



Micro-biowales



An aerial photograph of a lush green roof on a city building. A glass-enclosed pavilion with a white roof stands on the roof, with several people gathered around it. The roof is covered in various green plants and a paved walkway. In the background, other city buildings and a red-roofed structure are visible.

Greenery effects mood

“Viewing a green roof from the workplace led to **50% better concentration, better problem solving and a sense of hope.**”

Angela Loder, University of Denver

Image: ØsterGRO, Copenhagen

Princes Garden, Berlin

- See
- Smell
- Touch
- Taste
- Work with it



Empower all people /UK



City Beet urban farm / Vancouver, Canada





Social connection = happiness

“As much as we complain about other people, there is nothing worse for mental health than a social desert. The more connected we are to family and community the less likely we are to experience **heart attacks, strokes, cancer and depression.** **Connected people sleep better at night. They live longer. They consistently report being happier.**”

Charles Montgomery, 'Happy City', 2013

Granby Park / Dublin, Ireland





City Repair / Portland, Oregon



Public Artwork / Bodø, Norway



Broadgate / London, UK



Broadgate / London, UK



Weak ties cheer people up



UBC + Cambridge Psychologists Liz Dunn & Gillian Sandstrom, 2014

A photograph of a busy outdoor market street, likely in New York City. The street is filled with people walking in both directions. On the right side, there are several white market stalls or tents. One stall in the foreground has a sign that reads "COLD PRESS JUICE". The background shows tall city buildings and trees. The overall scene is vibrant and captures a moment of social interaction in a public space.

Weak ties cheer people up

“Eye contact or superficial contact with strangers makes people just as happy at end of day as contact with friends and family!”

Liz Dunn & Gillian Sandstrom, 'Social Interaction and Wellbeing', 2014

Spatial distribution of households and population density

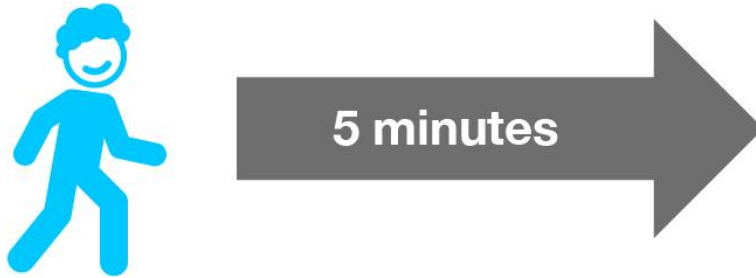


Christopher M. Jones and Daniel M. Kammen, *Spatial Distribution of U.S. Household Carbon Footprints Reveals Suburbanization Undermines Greenhouse Gas Benefits of Urban Population Density*

Inactive vs Active places



Movement effects mood



Robert Thayer, 'The Origin of Everyday Moods', 1996

Movement effects mood



Hormone release



Cheers you up
Boosts energy
Gives you optimism
Food tastes better!

**“Walking works like a drug,
and it starts working even
after a few steps.”**

An aerial photograph of a vibrant pedestrian plaza in Brighton, UK. The plaza is paved with a geometric pattern of light and dark grey rectangular stones. In the background, a long, low wooden bench runs across the frame, with several people sitting and standing nearby. A woman is riding a bicycle across the plaza. A dark green car, possibly a taxi, is parked on the right side. Numerous people are walking in different directions, some carrying bags or shopping. A dog is visible on the right. The scene is captured from a high angle, showing the layout of the space and the movement of people. The text 'New Road / Brighton, UK' is overlaid in the top left corner.

New Road / Brighton, UK



Legible London / UK



Camille Walala crosswalk / London, UK



Images: Camille Walala



Separated cycle lanes / Encourage cycling



Cycling culture / Copenhagen



Linking social status with urban movement

Metropolitan Transit

Woking / UK



Woking / UK



Woking / UK



Woking / UK



Seats?
Shelter?
Status?

Metropolitan Area of Bogotá, Columbia



Metropolitan Area of Bogotá

- Capital District of Bogotá
- 17 surrounding municipalities

Bogotá, Capital District (with 20 localities)

Soacha

Chía

Facatativá

Zipaquirá

Mosquera

Madrid

Funza

Cajicá

Sibaté

Tocancipá

La Calera

Sopó

Tabio

Cota

Tenjo

Gachancipá

Bojacá



Transmilenio / Bogota



Transmilenio / Bogota

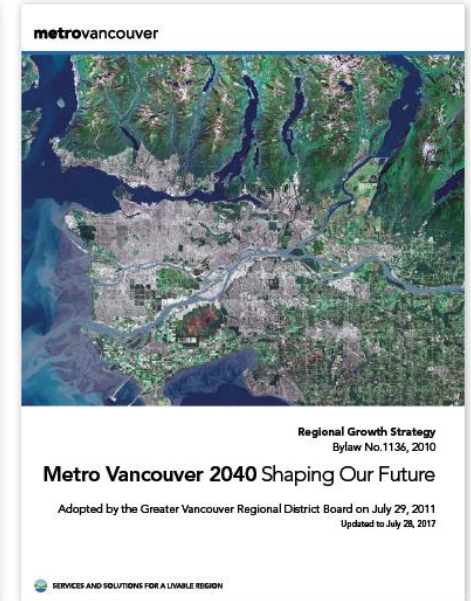
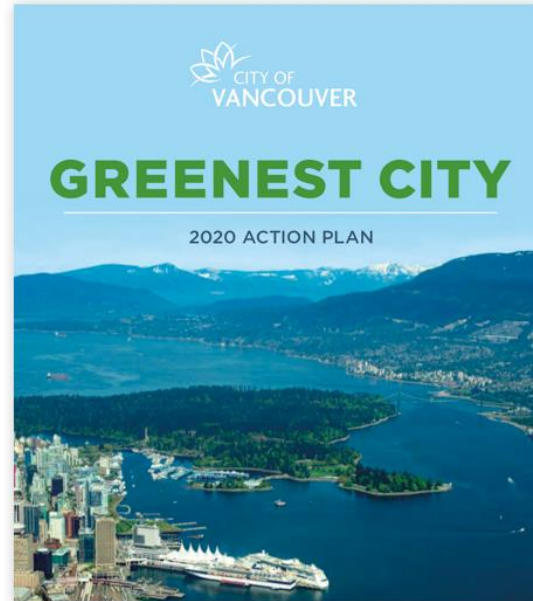
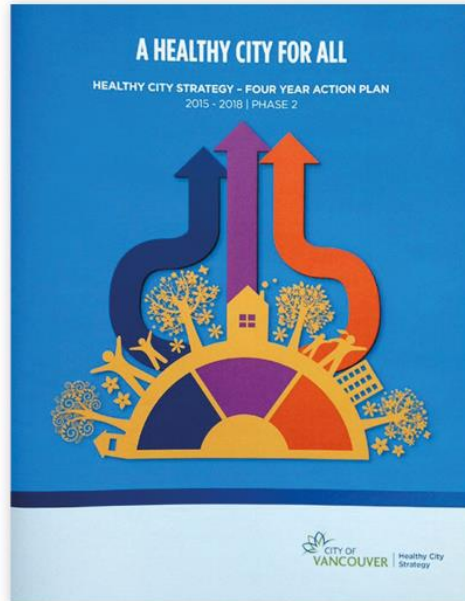


“One of the requirements of happiness is equality. Maybe not equality of income but equality of quality of life and, more than that, an environment where people don't feel inferior, don't feel excluded.”

Creating a livable region

What are the benefits of collaborating on a multi-city, town, village, First Nations and regional strategy?

Reports + Recommendations



Metro Vancouver, Canada



Metro Vancouver / Goals



GOAL 1

Create a Compact
Urban Area



GOAL 2

Support a Sustainable
Economy



GOAL 3

Protect the
Environment and
Respond to Climate
Change Impacts



GOAL 4

Develop Complete
Communities



GOAL 5

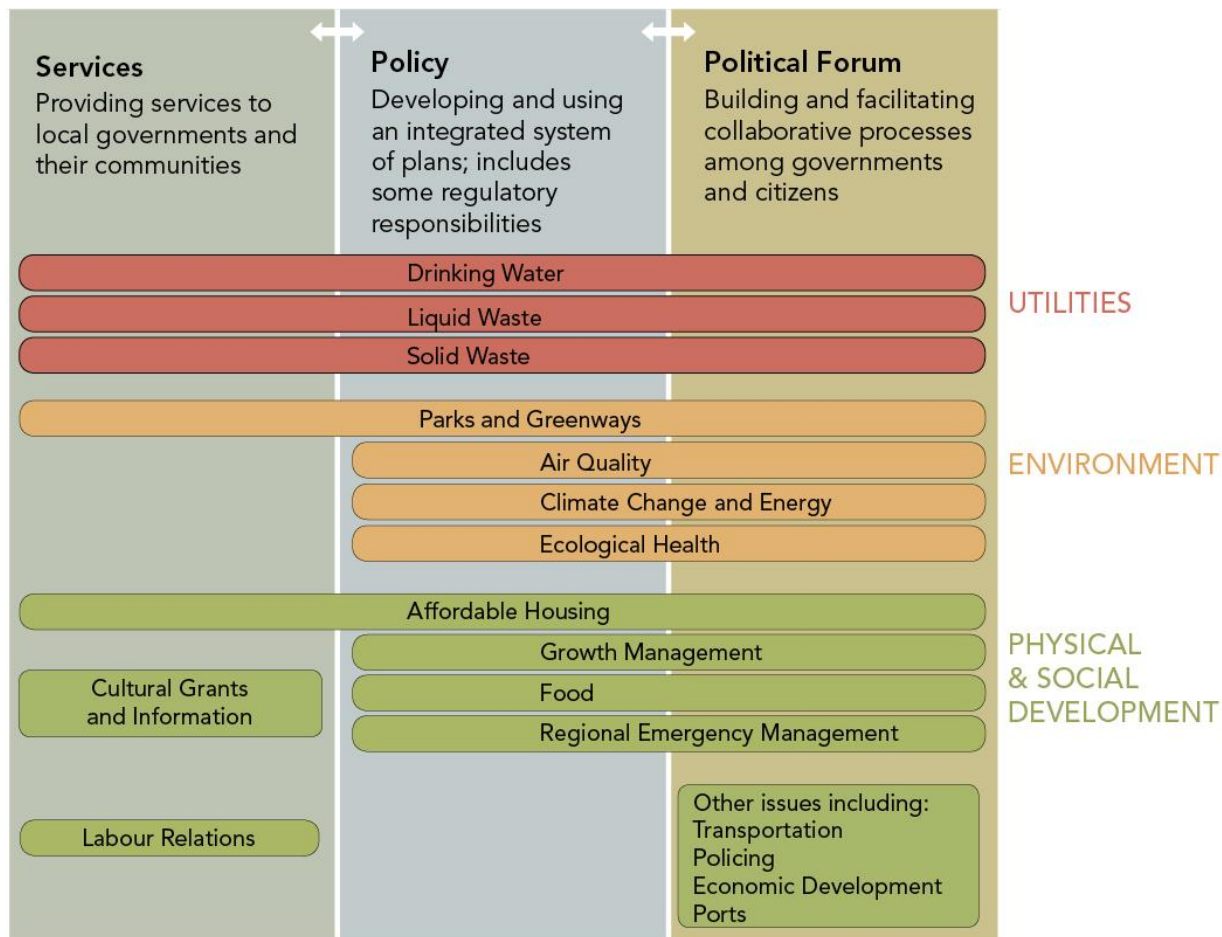
Support Sustainable
Transportation
Choices

Metro Vancouver's three roles

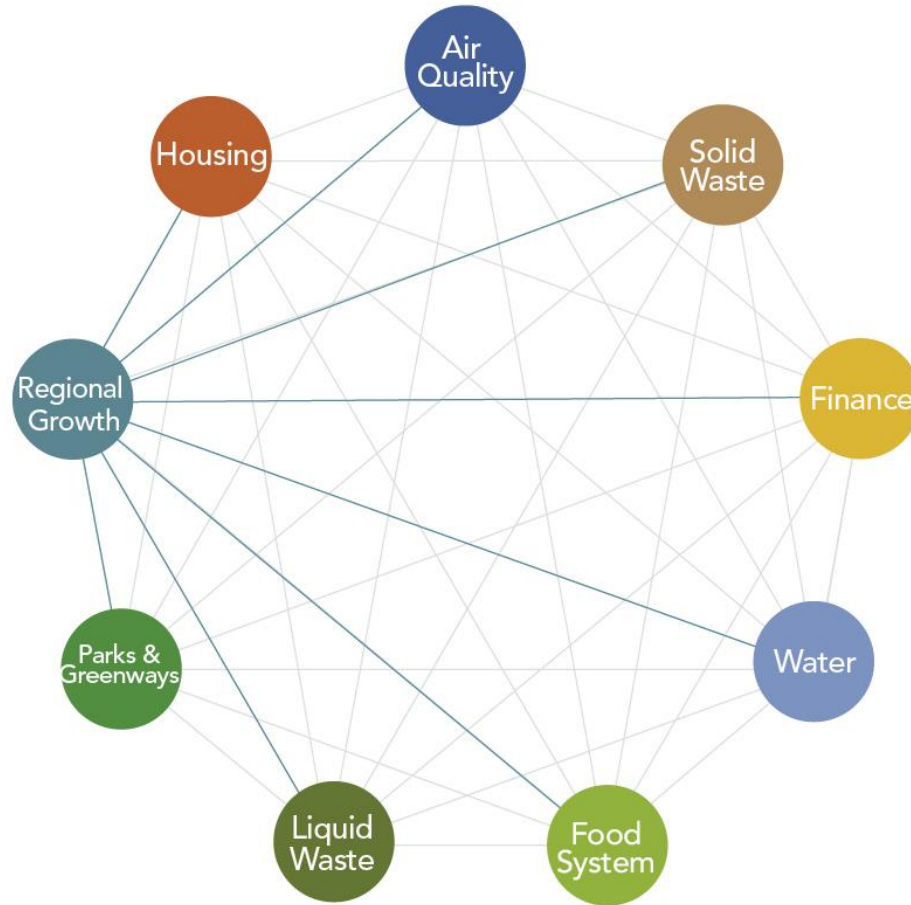
Services

Policy

Political Forum



Metro Vancouver's Interconnected Plans



EU Urban Agenda



Sustainable Land Use



Public Procurement



Energy Transition



Climate Adaptation



Urban Mobility



Digital Transition



Circular Economy



Jobs and Skills in the Local Economy



Urban Poverty



Inclusion of Migrants and Refugees

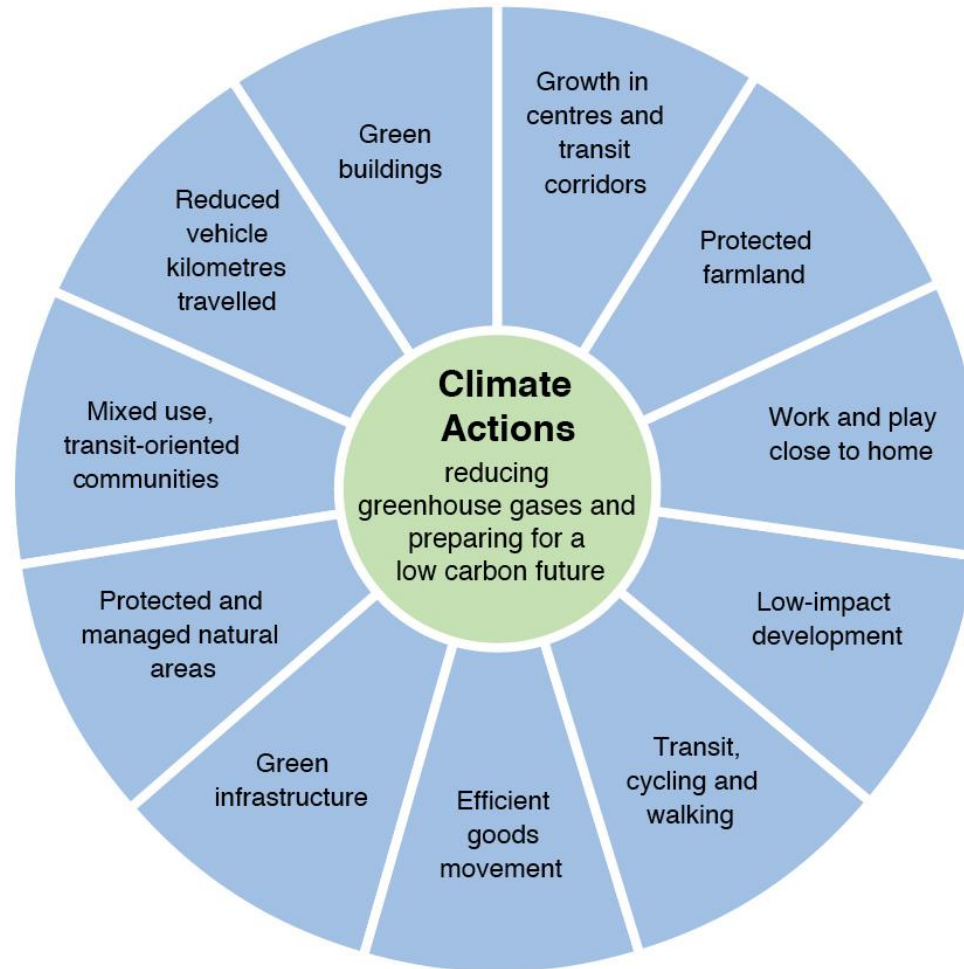


Housing



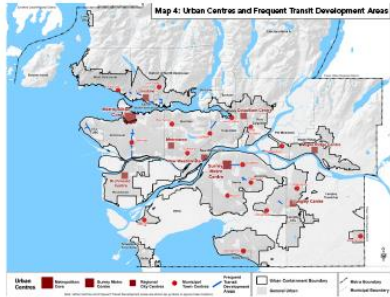
Air Quality

Metro Vancouver, Climate Actions



Metro Vancouver, Canada

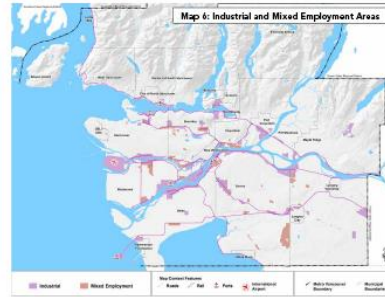
Urban Centres + Development Areas



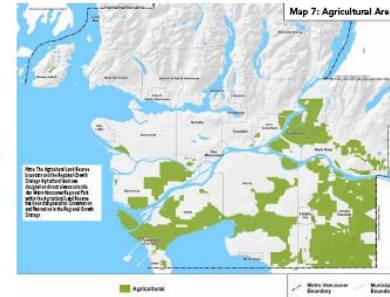
Rural Areas



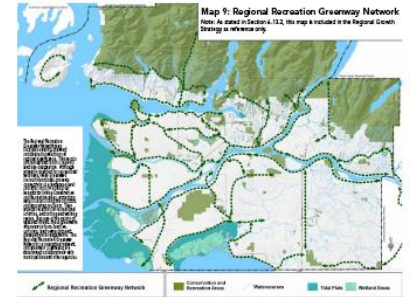
Industrial Areas



Agricultural Areas



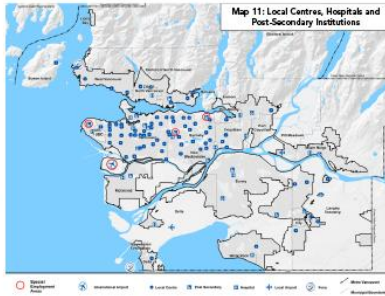
Recreational Network



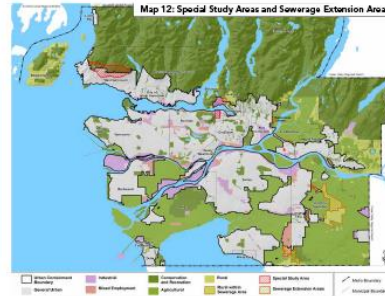
Natural Features + Land Cover



Centres, Hospitals, Institutions



Special Study Areas + Sewerage



Transit Network



Road Networks + Gateways



Why do cities make us happy?

- Culture + sharing ideas
- Hedonism + Entertainments
- Knowledge exchange, i.e. uni
- Range of job types/professions
- Short distances to amenities

Why do rural areas make us happy?

- Green + nature
- Health + fitness
- Freedom + territorial range
- Familiarity with faces
- Comfortable, i.e. “I can pee anywhere!”

Why do cities make us unhappy?

- Trapped and cornered by concrete
- Low access to wild spaces
- Reduced territorial range
- Numbers creates unfamiliarity
- Uncomfortable, i.e. “Where can I pee?”

Why do rural areas make us unhappy?

- Lack of new cultural experiences
- Low access to new experiences
- Lower knowledge exchange
- Lower range of job types
- Long distances to amenities = car

Perhaps the question is:

What is the purpose of the 21st Century Metropolis?



- Greenest Metropolis
- Low-Carbon Metropolis
- Engaged Metropolis
- Healthy Metropolis
- Happy Metropolis

You've been great!

Dziękuję!

Marten Sims, European operations lead