Health and Wellbeing in Cities: Theory and Practice

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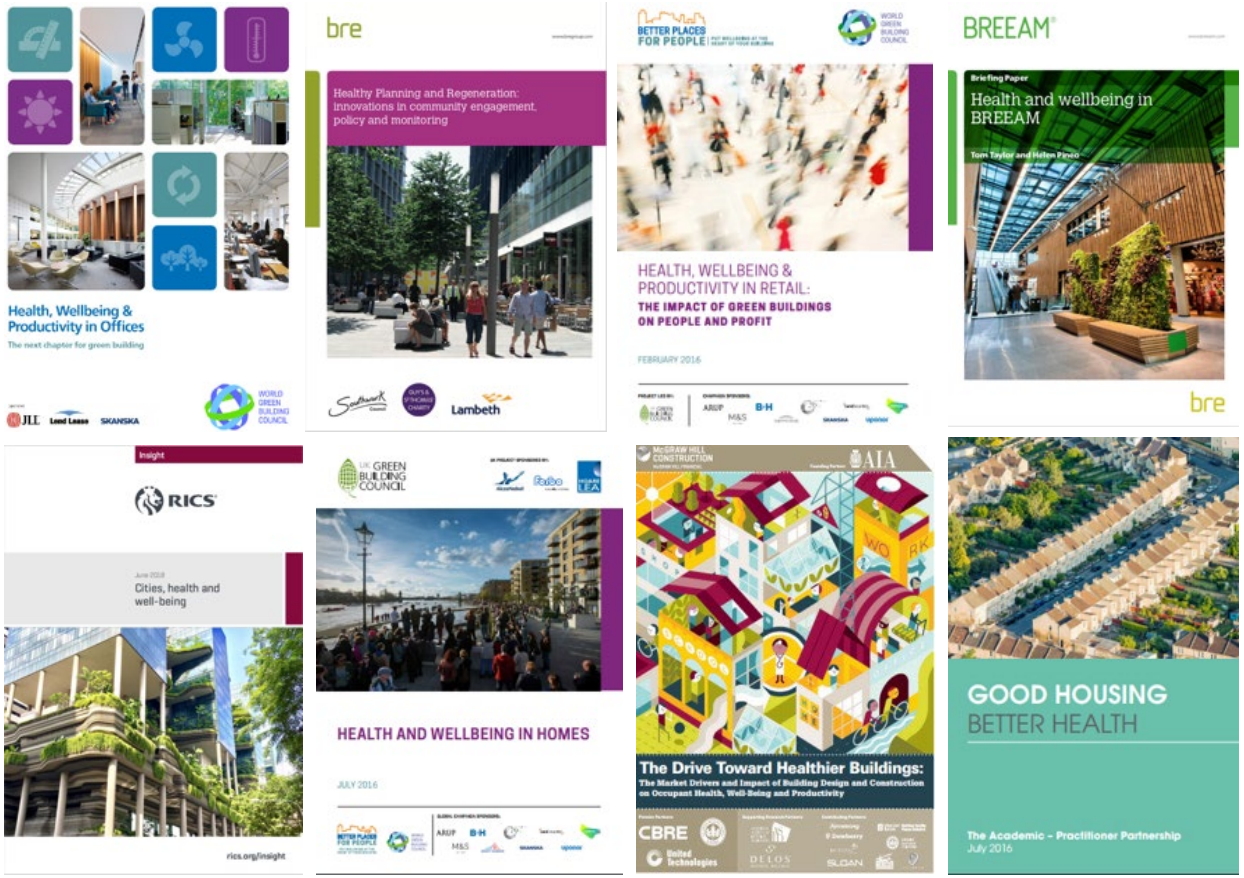
Today I will:

- Share an understanding of the factors in our cities and neighbourhoods that affect people's health and wellbeing;
- Introduce frameworks for healthy urban design and planning (THRIVES);
- Outline some case studies to improve health and wellbeing within neighbourhoods and urban areas and learning from practice.

Healthy urban development: there are many existing standards and guidance documents…



Healthy urban development: there are emerging policy programmes…

Understanding the jump between 'theory' (i.e. principles) to practice:

- There can be a difference between ***idealised*** **practice** and ***actual*** **practice**
- There can be a difference in principles and **applying principles** to specific contexts or situations
- There can be a difference between what professionals' **claim** underlie their practices and what **implicit understandings** are embedded (which they might not be aware of)

(Chapman 2017 in context of healthcare)

This matters because:

- The built environment is a cross disciplinary subject, and requires understanding and bringing together different *knowledges*
- A career in the built environment requires team work, professions don't work in silos to tackle issues
- Shift in skill sets and knowledge within research (and the profession), with a need to think holistically, whilst being innovative and creative

Why does health and wellbeing in our cities and neighbourhoods matter?

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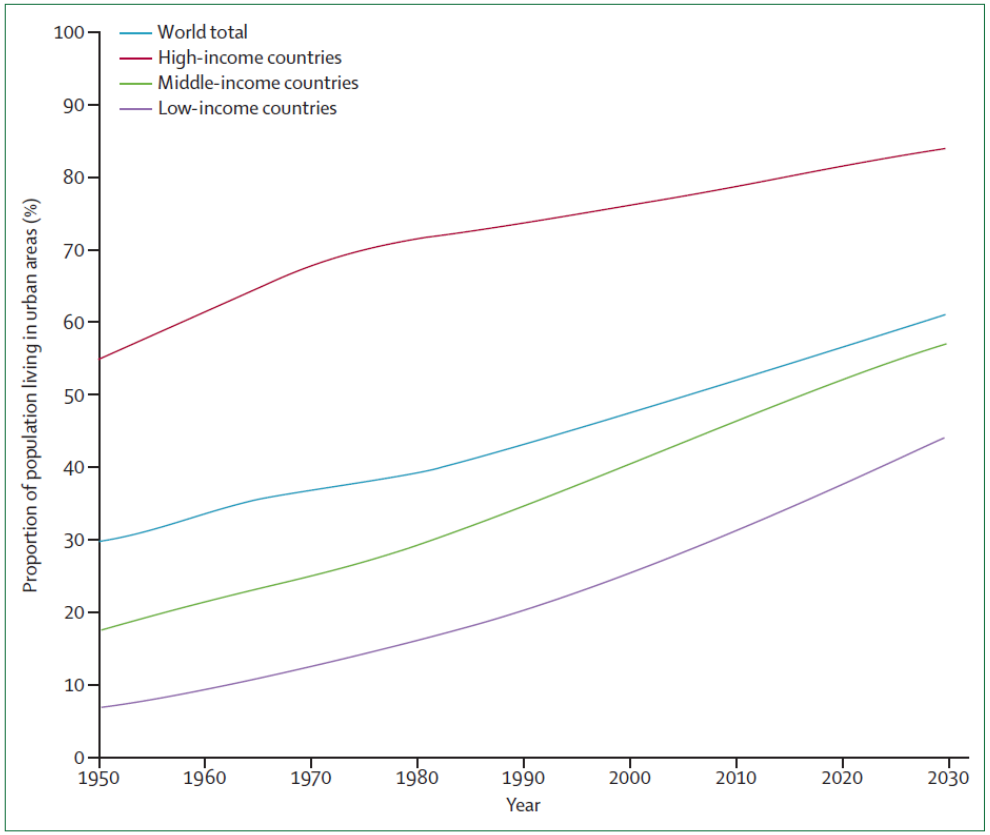
There are more people living in cities now than ever before, which this presents a unique set of factors that directly and indirectly affect health and wellbeing

(figure Rydin et al. 2012)



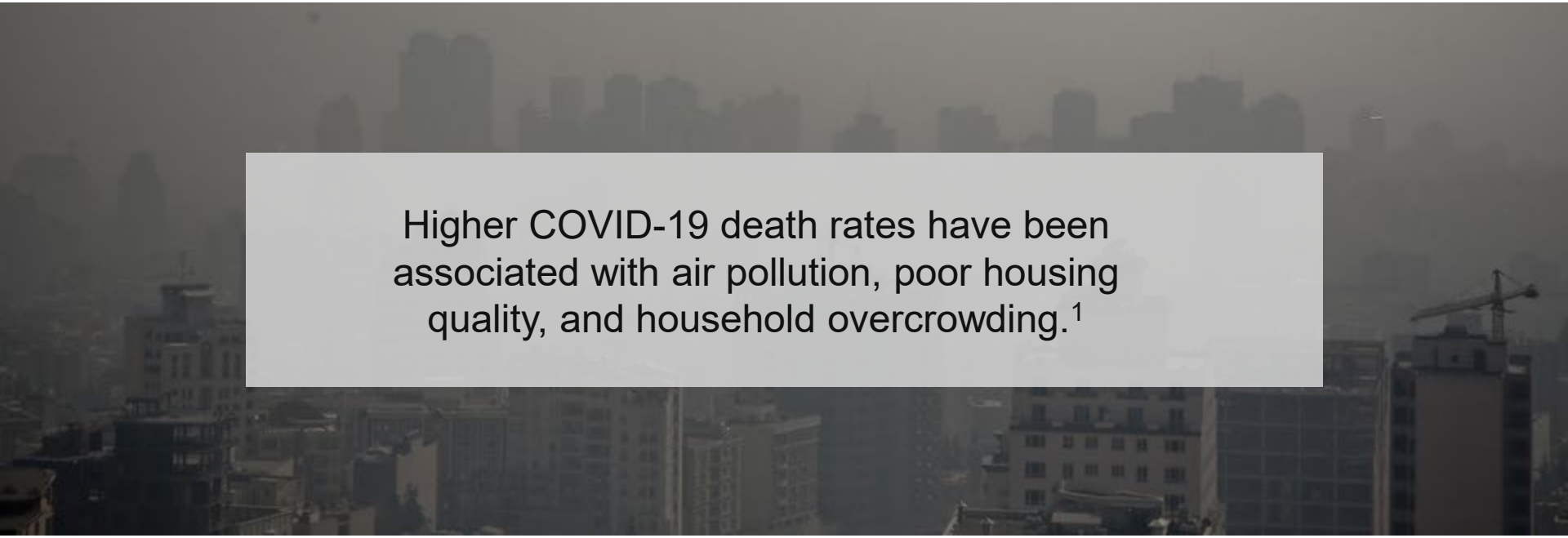
Why does health and wellbeing in our cities and neighbourhoods matter?

- Cities are complex systems
- The so-called ‘urban advantage’
- The World Health Organization (WHO) estimates the environmental burden of disease in the pan-European region at between 15 and 20% of total deaths, and 18 to 20% of disability-adjusted life years

Why does health and wellbeing in our cities and neighbourhoods matter?

- Gaps in understanding
- Scale and boundaries
- Different knowledges: planners, designers, engineers and others' key stakeholders

COVID-19 and the built environment

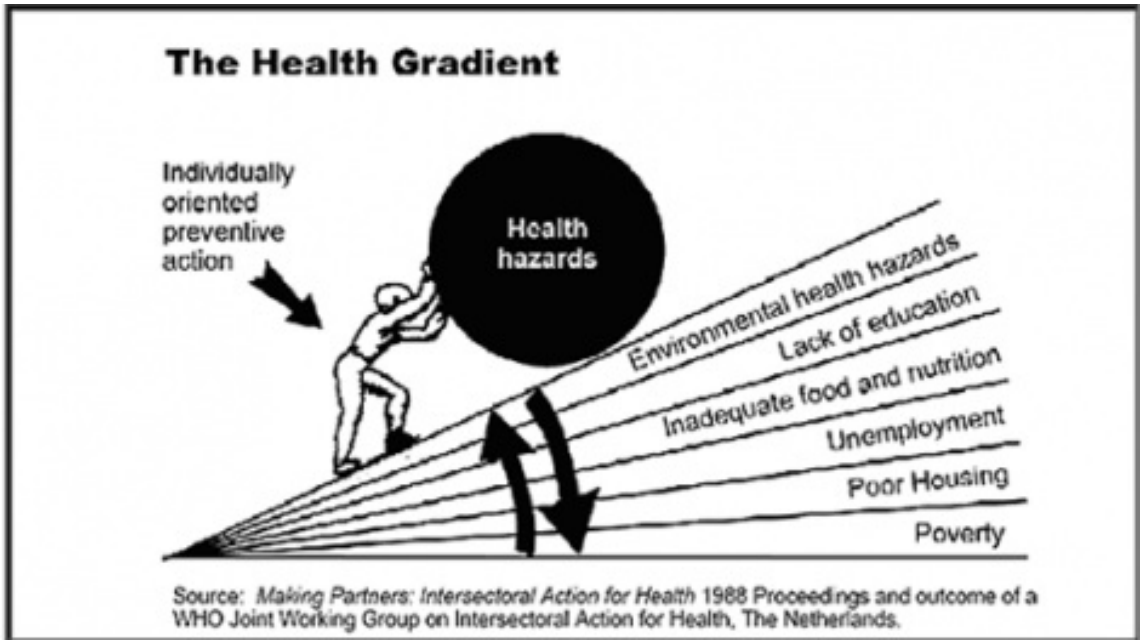


Higher COVID-19 death rates have been associated with air pollution, poor housing quality, and household overcrowding.[1]

[1]doi.org/10.1101/2020.04.05.20054502. DOI: 10.21203/rs.3.rs-35617/v1. https://cdn1.sph.harvard.edu/wp-content/uploads/sites/1266/2020/04/HCPDS_Volume-19_No_1_20_covid19_RevealingUnequalBurden_HCPDSWorkingPaper_04212020-1.pdf

Systemic difference in health experiences

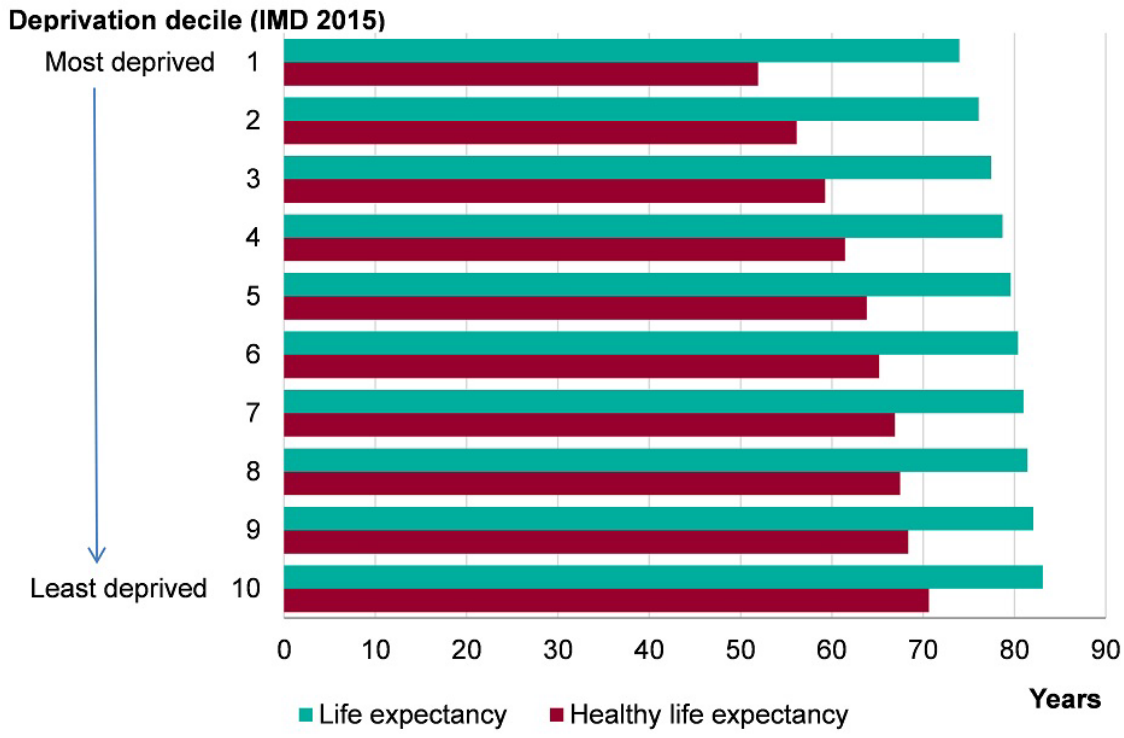
- Caused by social and environmental determinants
- So can be changed
- Gradient or hierarchy not “gap”



Health inequalities are the “unjust and avoidable differences in people’s health across the population and between specific population groups” (NHS Scotland and Gov UK 2017).

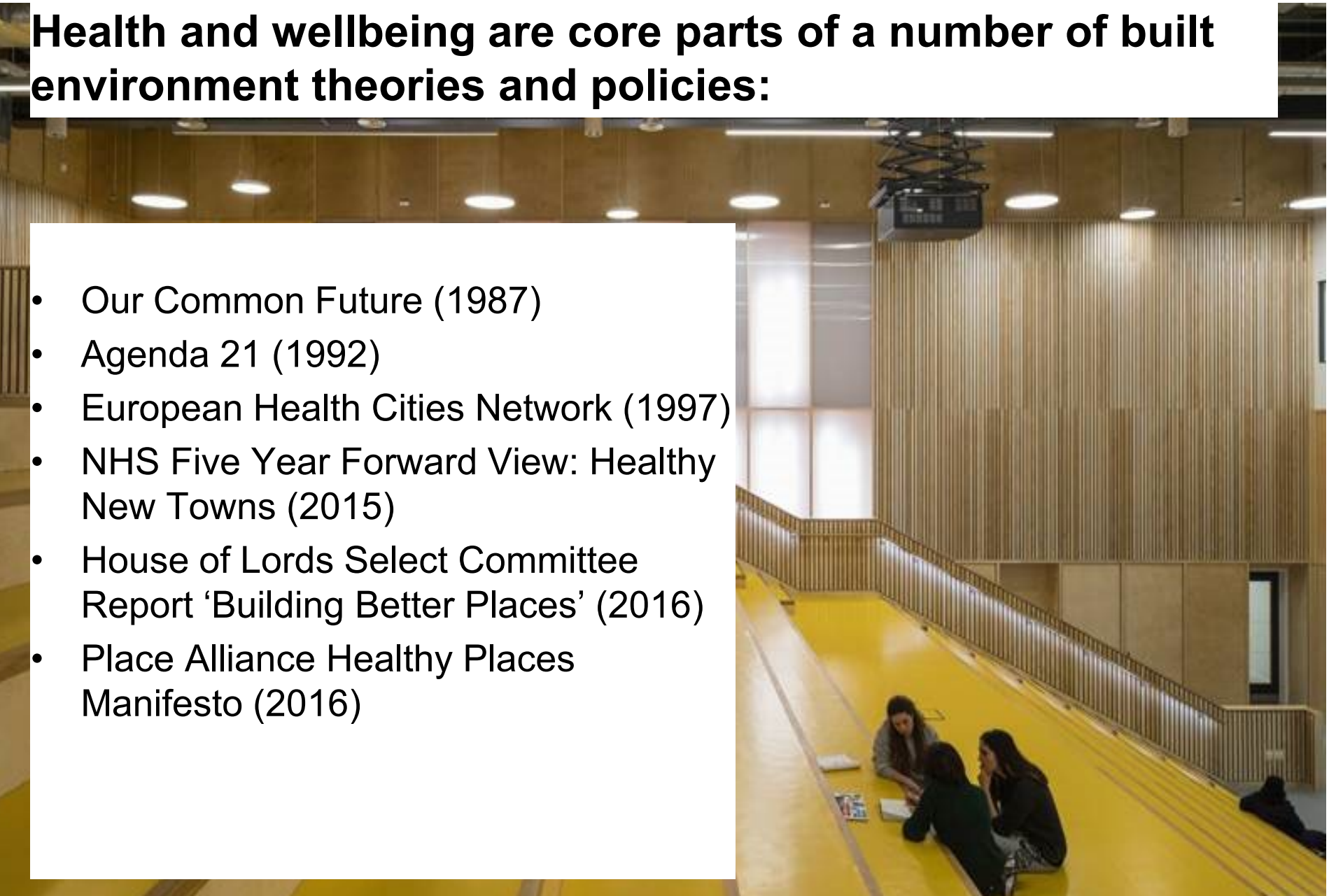
Kreiger:

- Unfair
- Unjust
- Avoidable
- Unnecessary



The link between health and wellbeing and the built environment

Health and wellbeing are core parts of a number of built environment theories and policies:



- Our Common Future (1987)
- Agenda 21 (1992)
- European Health Cities Network (1997)
- NHS Five Year Forward View: Healthy New Towns (2015)
- House of Lords Select Committee Report ‘Building Better Places’ (2016)
- Place Alliance Healthy Places Manifesto (2016)

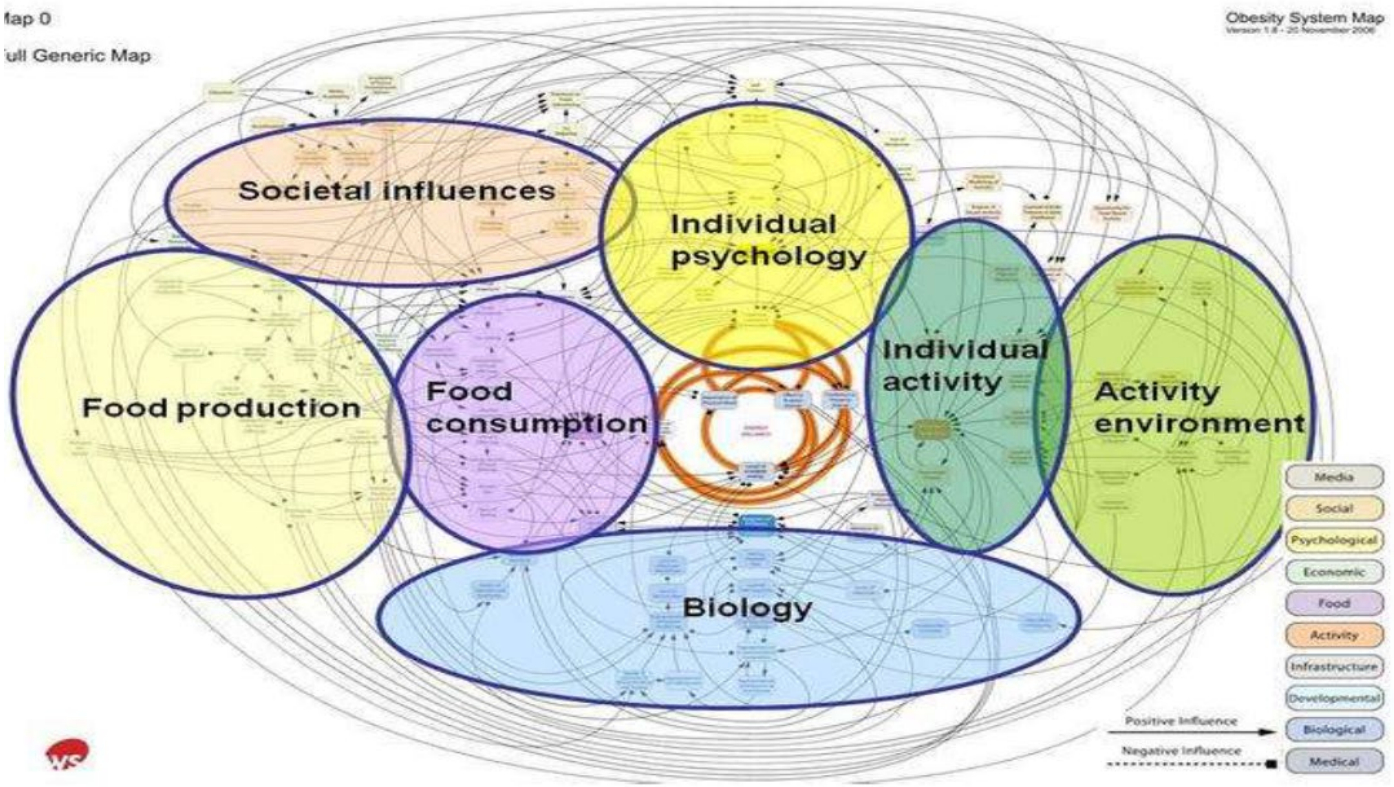
The social and environmental determinants of health and wellbeing

the factors combine together to affect the health of individuals and communities

The determinants of health include:

- the social (i.e. networks, sense of community) and economic environment (i.e. income and social status)
- the physical environment (i.e. safe water and clean air, safe housing etc)
- the person's individual characteristics (i.e. gender, genetics) and behaviours

Complexity: example the childhood obesity system

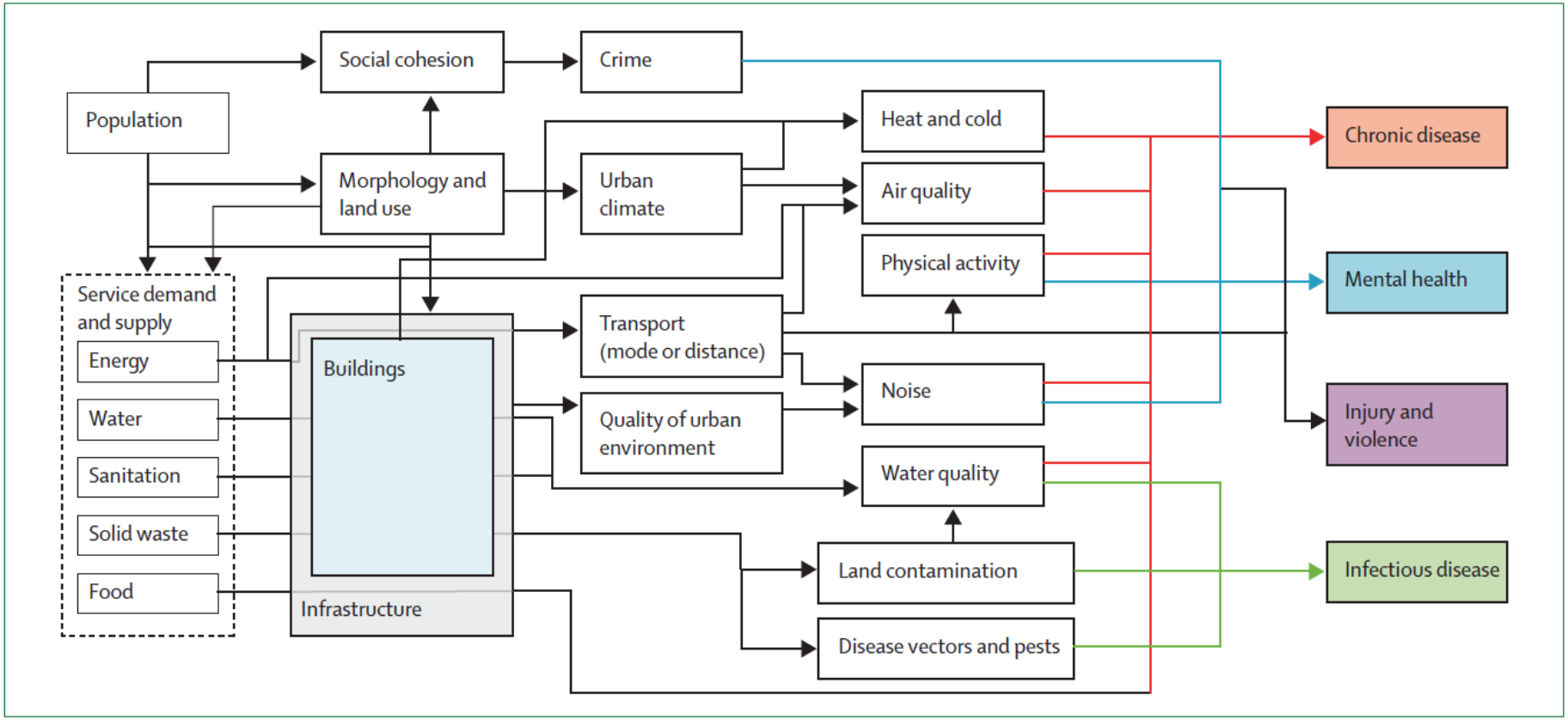


http://hdvchpediatricobesity.wikispaces.com/About+child+obesity

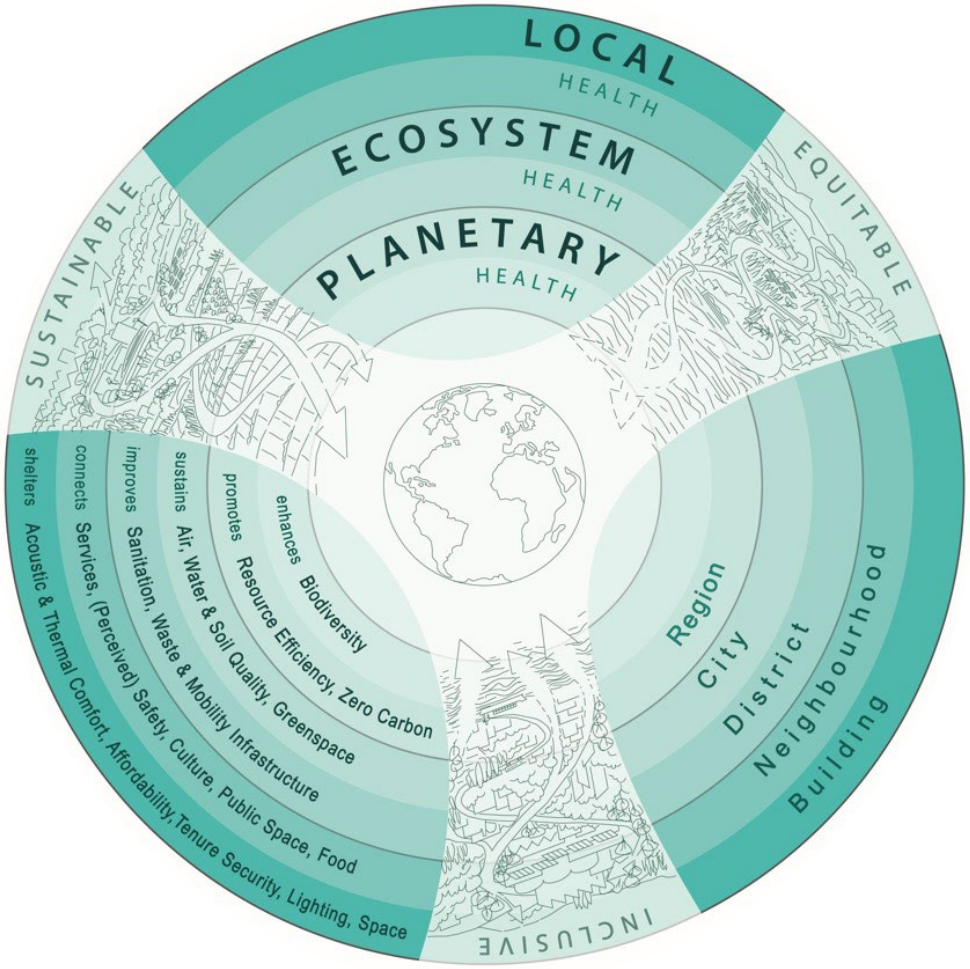
Source: Laurence Carmicheal (2017)

Settlement Health Map (Barton H and Grant M 2006)

Rydin et al. (2012) Shaping cities for health: complexity and the planning of urban environments in the 21st century



Towards healthy urbanism



THRIVES

towards healthy urbanism:
inclusive equitable
sustainable

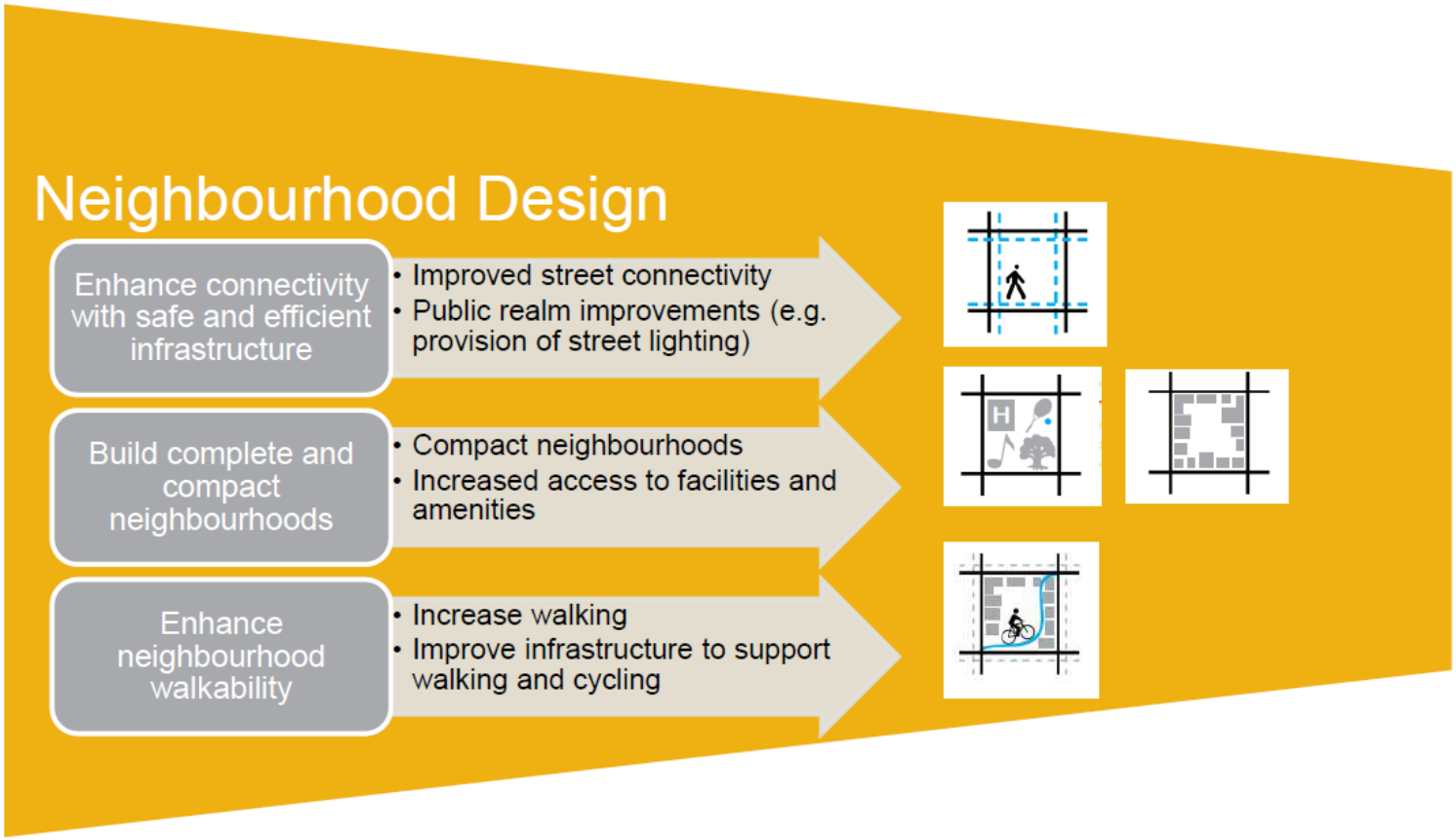
(Pineo, doi.org/10.1080/23748834.2020.1769527)

THRIVES: Key messages

Health impacts often occur far away from new development	Think beyond the 'boundaries' of development
Structural barriers prevent healthy living for many people	Target interventions & design with inclusive processes
Environmental degradation affects health now	Use sustainable design principles for health

(Pineo, doi.org/10.1080/23748834.2020.1769527)

Spatial planning for health (PHE 2017): An evidence resource for planning and designing healthier places



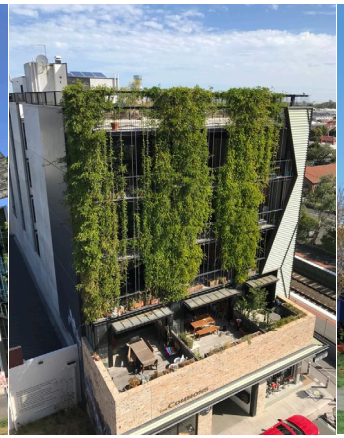
Current questions in practice

- What is the role of planning and design in delivering and achieving elements of health and wellbeing (i.e. social interaction, physical activity, accessibility, resource efficiency)?

- How and where do impacts occur?

- Can well-designed spaces and buildings reduce activities that are considered “unhealthy” (e.g. crime, anti-social behaviour, noise, congestion) and promote civility, sustainability and wellbeing?

Case studies


(Images Flickr CC: Centre Jeffrey Beall, Right Howard Stanbury)

Barton Park, Oxford, UK

Type: Mixed-use, housing, retail, community centre, school

Size: 94 acres (885 new homes, retail; 12.29 ha of public open space)

Organisation(s): Barton Oxford LLP (Grosvenor Developments Ltd and Oxford City Council)

Key Goals: Green infrastructure, public space, services, nutrition

Standards: Level 4 of the Code for Sustainable Homes

THRIVES links: Inclusion, Equity

Beyond the boundaries

‘…Grosvenor sees the health of the existing community at Barton, which is situated just beyond its site’s boundary, as being a key feature of the development to shape residents’ wellbeing.

- new community engagement manager
- funding for a significantly expanded GP surgery
- new and improved outdoor sports facilities
- improvements to existing secondary school education
- support for health and social care
- strategic transport provision.’[1]

[1]Chang, M., 2018. Securing constructive collaboration and consensus for planning healthy developments: A report from the Developers and Wellbeing project. Town and Country Planning Association, London, UK.

Photo Howard Stanbury, Flickr.

Inclusive process to support equity

Target interventions & design with inclusive processes

Creation of a new baseline for health, wellbeing and health inequality, based on data and primary research, to guide the project's future physical and service plans.

Improved health and community hub accessible to new and existing residents.

Co-designed with the community and supported by the voluntary sector.

Aims to improve access to initiatives such as social prescribing but also deliver better utilisation of community assets to help address inequalities faced by existing residents.[1]

Barton HNT - the impact on residents

https://www.youtube.com/watch?v=ueUNalemris&t=31s

[1]Chang, M., 2018. Securing constructive collaboration and consensus for planning healthy developments: A report from the Developers and Wellbeing project. Town and Country Planning Association, London, UK.

Mariposa, Denver, USA

Type: Masterplanning, housing, community centre

Size: 17.5 acres (900 new homes)

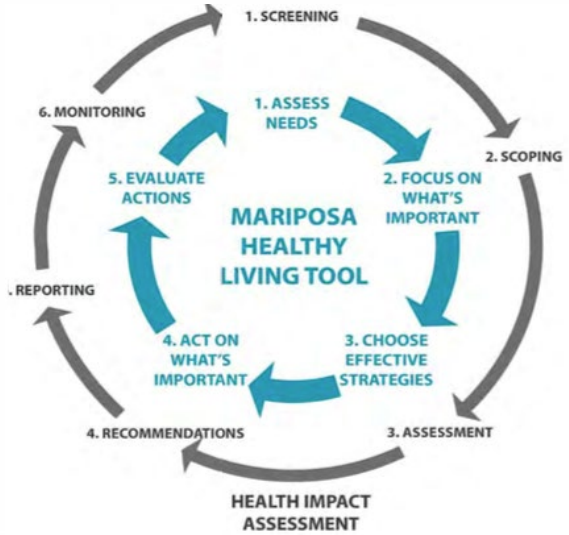
Key Goals: Safety, transport infrastructure, mobility, social cohesion, public realm, nutrition, community-based design

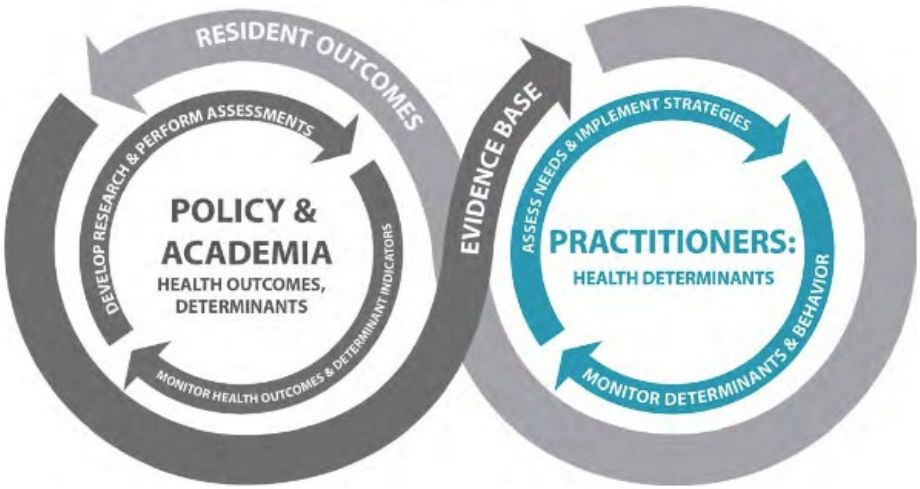
THRIVES links: Inclusion, Equity

Strong points: increased density of housing, “design beyond buildings” through community health initiatives, monitoring and evaluation (community indicators)

Inclusive Process

Target interventions & design with inclusive processes





Christensen E. The Mariposa Healthy Living Initiative. 2012.

Goals

Use sustainable design principles for health

Think beyond the 'boundaries' of development

Sustainable safe transportation: Reduce vehicle miles traveled (VMT); provide accessible, affordable public transportation; create safe, quality environments for walking and biking.

Healthy housing: Provide a range of housing options: size, tenure, affordability; protect from involuntary displacement; decrease concentrated poverty; ensure access to healthy, quality housing and home environment.

Healthy economy: Increase quality, healthy employment opportunities and access for residents; Increase equity in income and wealth; promote entrepreneurship, locally and resident owned businesses.

Social cohesion: Promote a socially cohesive community; support a diverse population; promote a safe and secure community; support community gathering and spaces for interaction; support mental health.

Public infrastructure: Promote access to, and affordability of quality public infrastructure: education, child care, public health and recreation facilities, daily goods and services; promote affordable and high-quality food access.

Environmental stewardship: Restore, preserve, and protect natural areas and open space; preserve clean air quality and water quality; maintain safe levels of community noise.

Christensen E. The Mariposa Healthy Living Initiative. 2012.

Mariposa Healthy Living Initiative: **Evaluation**

By 2012, after the first phases of redevelopment:

- 38% of residents said their health had improved
- Smoking rates dropped by 6%
- Residents with access to open space and nature within a half mile (0.8 km) of their homes increased from 26% to 32%
- Crime rate per 1,000 people decreased from 248 to 157.[1]

Other reported benefits:

- Greater understanding of how to navigate the health system
- Fewer residents using the Emergency Room as primary care and fewer 911 calls (and subsequent savings for city and health care system)
- Number of healthy food outlets within ½ mile increased from 0 to 1.[2]

[1]Kramer, A., Lassar, T.J., Federman, M., Hammerschmidt, S., 2014. Building for Wellness: The Business Case. Urban Land Institute, Washington DC. [2]Joseph, M., 2019. Mixed-Income Communities as a Strategic Lever to Impact Health Equity: Lessons from the Field and Implications for Strategy and Investment. Mixed-Income Strategic Alliance.

Nightingale 1, Melbourne, Australia

Type: Housing

Size: 20 units

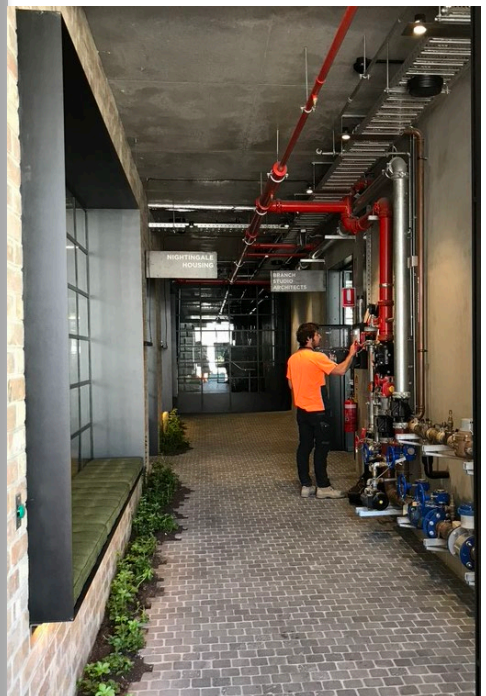
Organisation(s): Breathe Architecture, Nightingale 1 Investment Co.

Key Goals: Affordability, tenure security, energy, water, carbon neutral

Standards: NATHERS

THRIVES Links: Sustainability, Equity

Strong points: Affordable housing, design for sustainability and social interaction, community engagement



Bullitt Center, Seattle, USA

Type: Office building

Size: 52,000 sq ft (6 stories)

Key Goals: net zero energy, water and carbon

THRIVES links: Sustainability

Standard: Living Building Challenge

Strong points: on-site energy generation and wastewater treatment, pushing innovation in local regulations, supporting physical activity, natural light

Sustainable design

- net zero energy: solar array generates all electricity needed (60% more than the building used in 2014).
- net zero water: rainwater is collected on the roof, stored in an underground cistern and used throughout the building
- net zero carbon,
- composting toilets,
- toxic-free materials,
- an enticing stairway,
- 80+ percent daylit using high-performance windows

Schwanke D. ULI Case Studies- Bullitt Center. Urban Land Institute Case Study. 2015;(February):1–12.

Health & social benefits

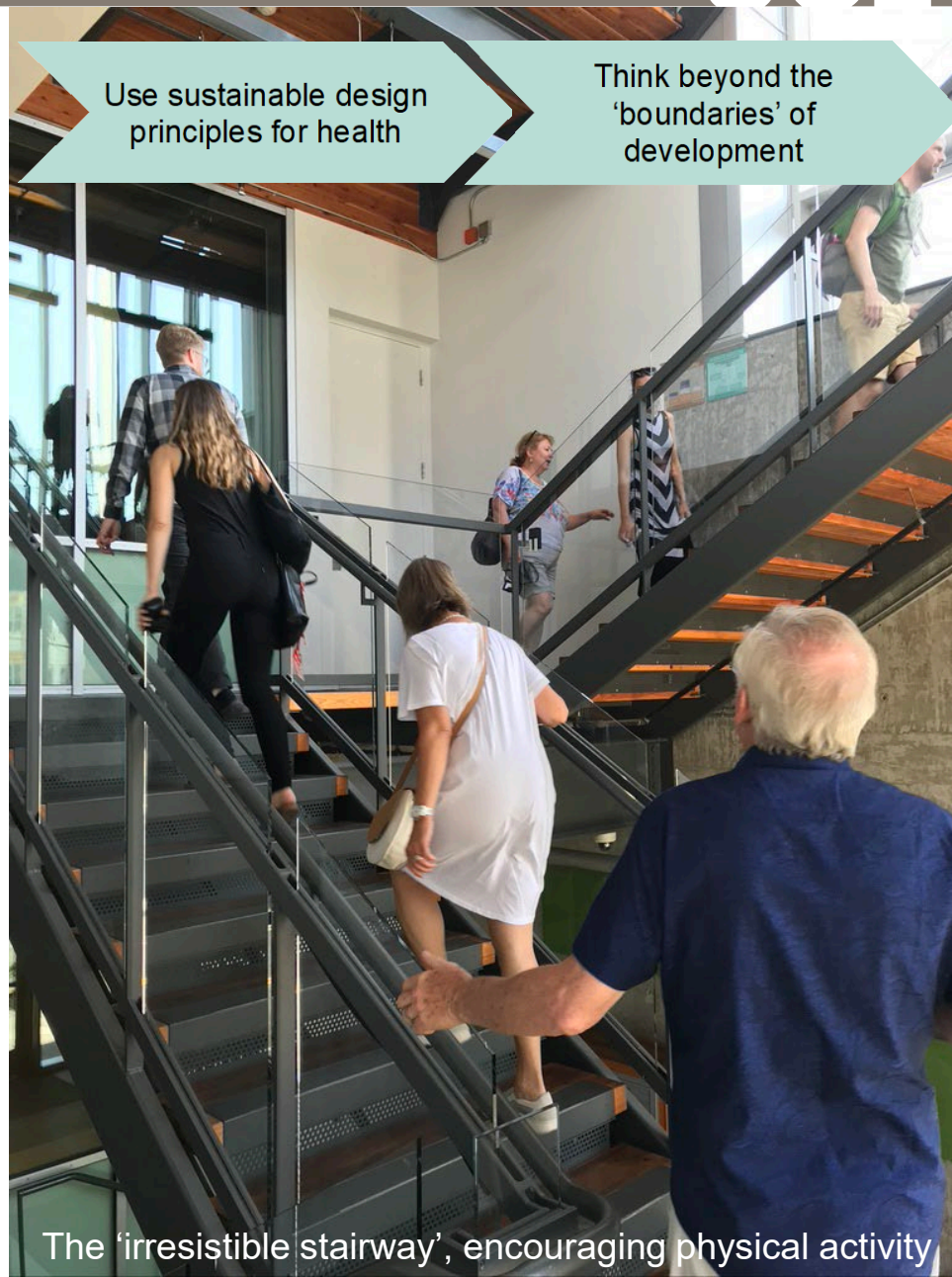
Bullitt promotes health through:

- Stairway
- Operable windows
- Features to promote walking and resource sharing
- No “Red List” hazardous materials

Evaluation

- 68% of trips from the main floor to the 6th floor via stairs (versus 23-27% share of stair trips in typical office)[1]
- six of the Bullitt’s features – from energy efficiency to rainwater capture – could produce as much as $18.45m in public benefits[2]

[1]Burpee H, Gilbride M, Douglas K, Beck DAC, Meschke JS. Health Impacts of Living Building: The Bullitt Center. 2015. [2]Cowan BYS, Davies B, Diaz D, Enelow N, Halsey K. Optimizing Urban Ecosystem Services : The Bullitt Center Case Study. Ecotrust Portland, OR, USA. 2014;141.



The ‘irresistible stairway’, encouraging physical activity

What problems are encountered when integrating health and wellbeing into new development?*

- Perceived reputational risk of failure and actual financial risk
- Knowledge gaps among professionals (e.g. materials)
- Performance gap from design to occupation
- Constraints on site or wider location
- Difficulty quantifying ‘added value’ and measuring impact
- Difficulty of doing something new, changing norms
- Maintenance and management after occupation

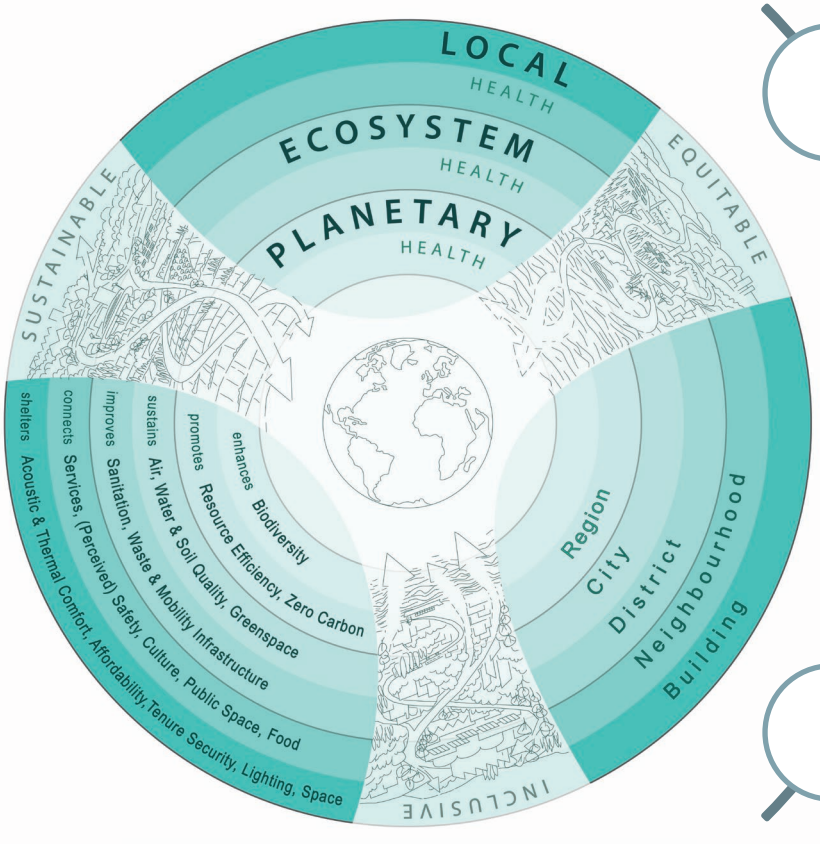
*Pineo and Moore, preliminary findings of interviews with 31 professionals

What helps to integrate health and wellbeing into new development?*

- Getting in early to the design and planning process
- Recognising occupant demand (clear business case)
- Using a framework to prioritise action
- Regular communication & collaboration with health ‘champions’
- Inclusive design process and diverse professional team
- Recognising risk held by different parties (‘pilot’ projects reduce risk)
- Measuring/communicating ‘added value’ of H&W (for commercial projects)

*Pineo and Moore, preliminary findings of interviews with 31 professionals

THRIVES Using the framework



- Build shared understanding
- Explore health impacts
- Support community participation
- Adapt THRIVES for your needs
- Inform further research

(Pineo, 2020) www.healthyurbanism.net

Future Neighbourhoods 2030:

How can health and wellbeing be embedded?

Questions