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The importance of place shaping for health and wellbeing:

evidence base and delivery mechanisms

UWE Bristol | University of the West of England

Content

1. The evidence base linking the built environment and health, bringing together the healthy planet-healthy people agenda

2. The international and national drivers to "do something"

3. The solutions: examples of what cities in Europe have achieved and how

4. Examples of tools and support available to cities

5. Finally the role of phase VII Healthy Cities

The evidence base linking the built environment and health, bringing together the healthy planet-healthy people agenda

# Urban dimension of health: has emerged strongly in research in recent years

Scientific evidence: links urban activities and health

1. Urbanisation: has had positive economic and social benefits but has at the same time led to risks from air pollution, noise levels, waste, flooding, sedentary behaviour and isolation

2. => contribute to the growing epidemic of non communicable diseases and mental health issues.

3. Differences in the quality, availability and maintenance of urban infrastructures and services =>lack of social equality in health, resulting in some population groups being more affected by the state of the urban environment.
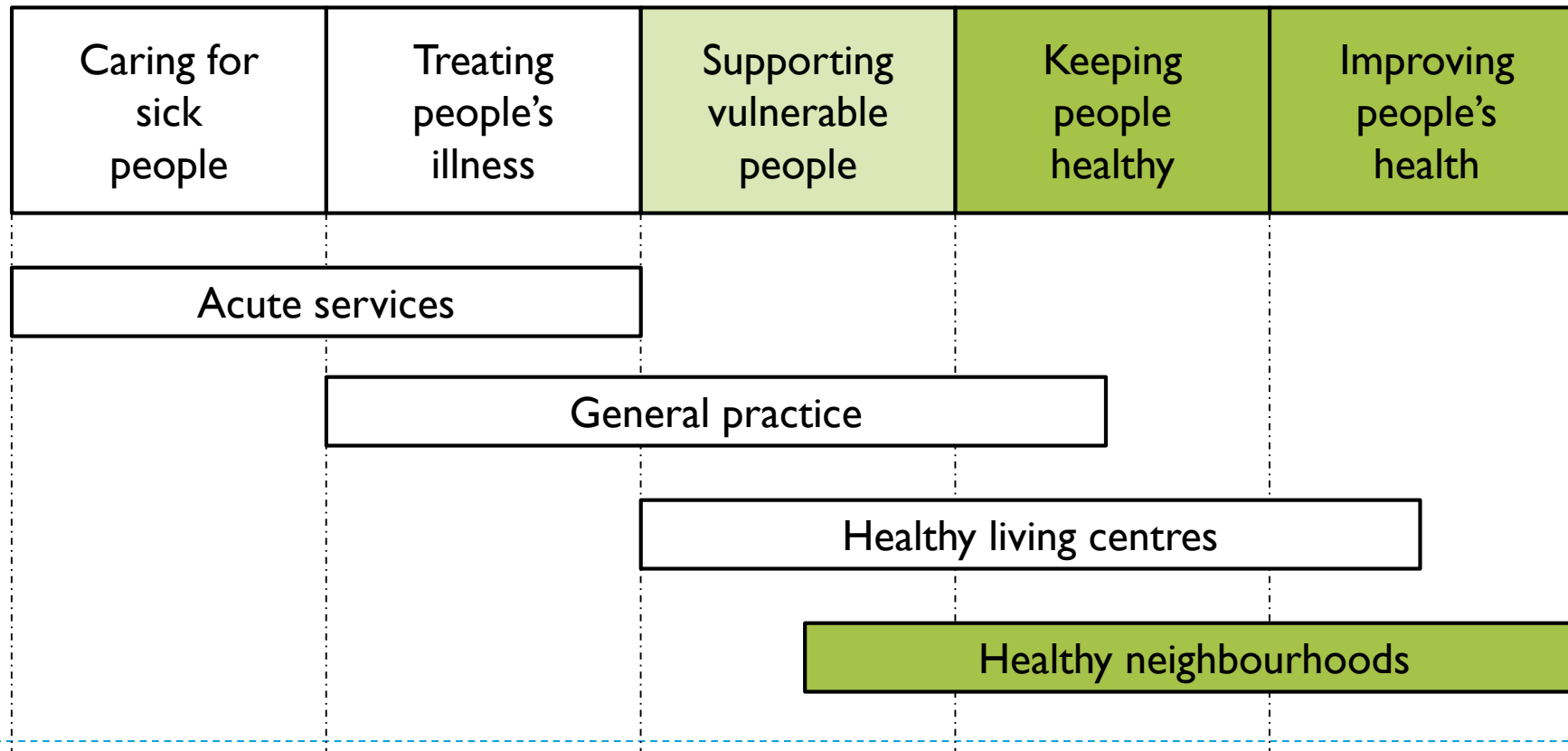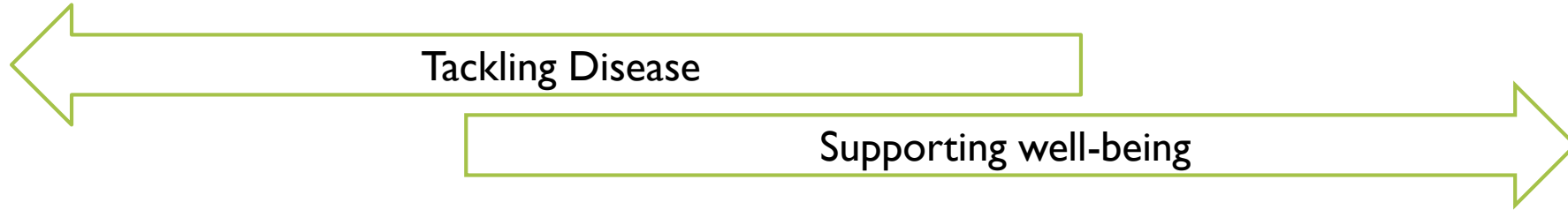
Wider determinants of health

'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' WHO, 1948

The health map: Barton and Grant 2006 developed from a concept by Dahlgren and Whitehead 1991
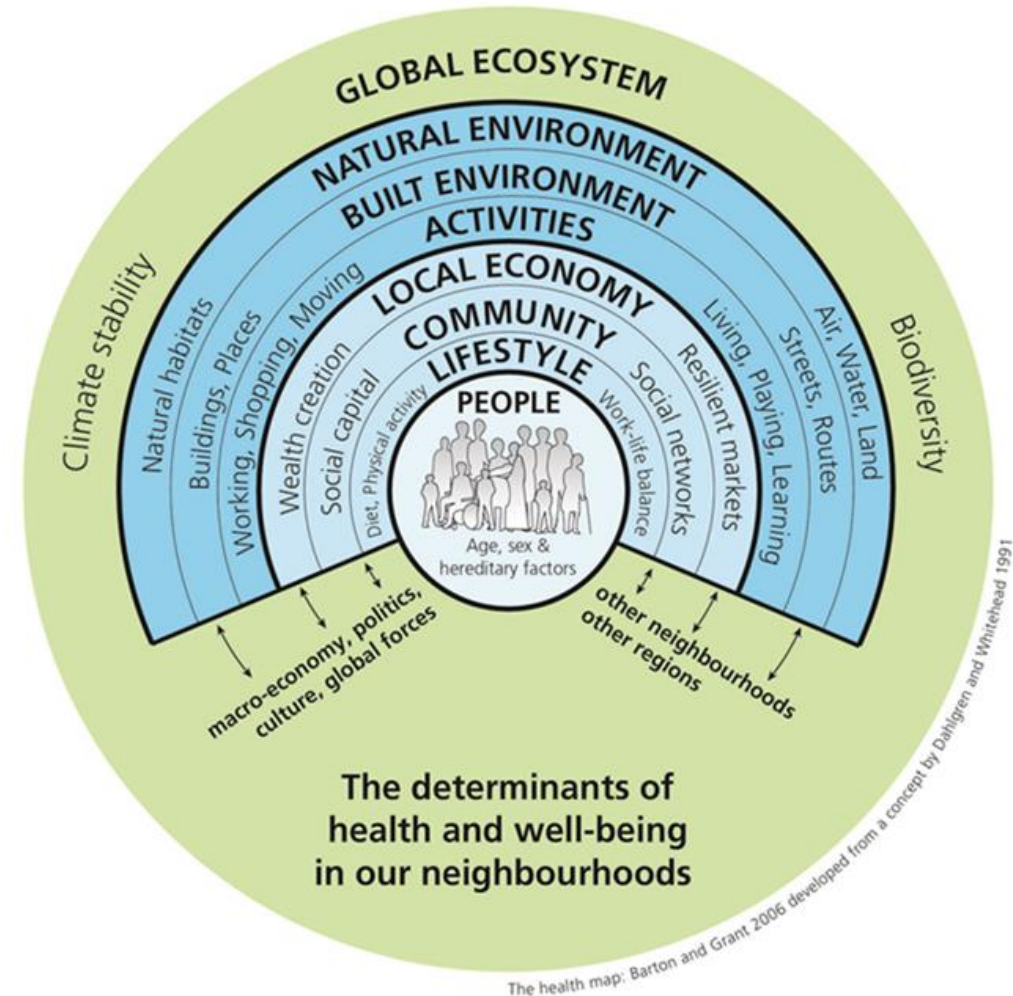
Summary of evidence base for links between health and the built environment
Adapted from HUDU checklist (1) , UWE umbrella review (2), and Sustainable Building (3)

Theme	Link to health	What can planning do
Neighbourhoods	Access to local food shops Access to education Access to healthcare services Access to social infrastructure Local employment and healthy workplaces Public buildings and spaces Poor environment leading to physical inactivity Ill health exacerbated by fear of crime, social isolation, etc.	Restricting unhealthy outlets (alcohol, fast food, gambling) Increasing healthy outlets (leisure centres, healthy food) Dt esigning high quality public realm Provision of social infrastructure (healthcare, education, social, employment) Accessible to people across the life course and of all needs e.g. mobility, cognitive, sensory Community empowerment Waste removal, drainage Lighting Irregular, curved grid pattern streets (support dementia, social interaction) Local employment and healthy workplace
Housing	Physical impacts (e.g. cold, damp, daylight, ventilation, noise) Psychosocial impacts (e.g. overcrowding, noise) Social isolation Excess deaths due to cold/ overheating Injuries in the home	Housing design - natural light, broadband, space, removal of hazards, etc Energy efficiency, fuel poverty Accessible to people across the life course and of all needs Housing mix and affordability (Shelter definition) Space standards ($37m^2$ for 1 person, $50m^2$ for 2 people), Lifetime Home standards High residential density but medium-low rise buildings with local facilities Stairs more prominenthan lifts Active transport facilities Set back from street, with 'transition zone' Provision for homeless and those with chronic disease
Transport	Road traffic injuries Active travel promotes physical activity – obesity, cardiovascular disease Wellbeing impact from social isolation Noise and air pollution from traffic	Hierarchy (pedestrian, cyclist, public transport, private vehicles) Active travel infrastructure Minimise car use/ car free/ zero emission Connectivity Road safety – traffic calming, speed limits Signage is intuitive and easy to navigate for people with impairments, e.g. dementia, autism Accessible to people across the life course and of all needs, e.g. mobility scooters, wheelchairs and pushchairs - public toilets, rest stops, shelters Vegetation as lane separator
Open space	Increases physical activity Improves wellbeing Improves social connectedness Improves air quality Disturbance and stress caused by construction activity Toxicity Excess summer deaths due to overheating	Open space standards Increase accessibility of open space to people across the life course and of all needs Increase use of open space, points of interest, green/ blue/ play space Urban planting / biodiversity Local food growing, allotments Construction planning Noise mitigation Contaminated land
Sustainability	Health impacts of climate change – cardiovascular, respiratory and infectious disease, overheating, allergies, vectors, injuries	Flood risk plans Water fountains Energy efficiency/ renewables Local food

1. Healthy Urban Development Unit. Healthy Urban Planning checklist. 2014
2. Bird E, Ige J, Burgess-Allen J, Pinto A, and Pilkington P. Healthy people healthy places evidence tool: Evidence and practical linkage for design, planning and health. University of the West of England, Bristol. 2017
3. Sustainable Building Design & Wellbeing research unit, University of Warwick. What Makes Us Happy? Wellbeing and design. 2016

Neighbourhood design

Neighbourhoods are places where people live, work, and play an have a sense of belonging.

▸ The design of a neighbourhood can contribute to the health and well-being of the people living there, maximise opportunities for social engagement and active travel.

▸ Neighbourhood design can impact on our day-to-day decisions and therefore have a significant role in shaping our health behaviours.

▸ Principles for building healthy neighbourhoods:
  ▸ Enhance neighbourhood walkability
  ▸ Build complete and compact neighbourhoods:
  ▸ Enhance connectivity with safe and efficient infrastructure

Build Complete and Compact Neighbourhoods

Enhance Neighbourhood Walkability

Enhance connectivity with safe and efficient infrastructure

Cagnes-sur-mer, France:

Compact neighbourhood

100% walkable

Kuopio, Finland:

A neighbourhood fit for all generations

Kuopio, Finland:

Walkability through ambitious transport strategy

Angers, France:

Central square

Walkability

Public Transport

Retail- housing integration

Green infrastructure

St Nazaire, France:

Mixed development

Playground

Retail –housing integration

Child friendly

Adapted to rainy climate!

Copenhagen

Mixed development

Cagnes-sur-mer, France

Catering for all ages

Housing

A considerable amount of time is spent daily in the home. Housing is a basic human right and the quality and affordability of houses can determine the health status of residents.

Living in good quality and affordable housing is associated with numerous positive health outcomes for the general population and those from vulnerable groups.

Increase Provision of Affordable Housing for Groups with Specific Needs

Improve Quality of Housing

Increase Provision of Affordable and Diverse Housing

Hannam Hall, Bristol, UK

Integrating quality design for human and planetary health

Kuopio, Finland:
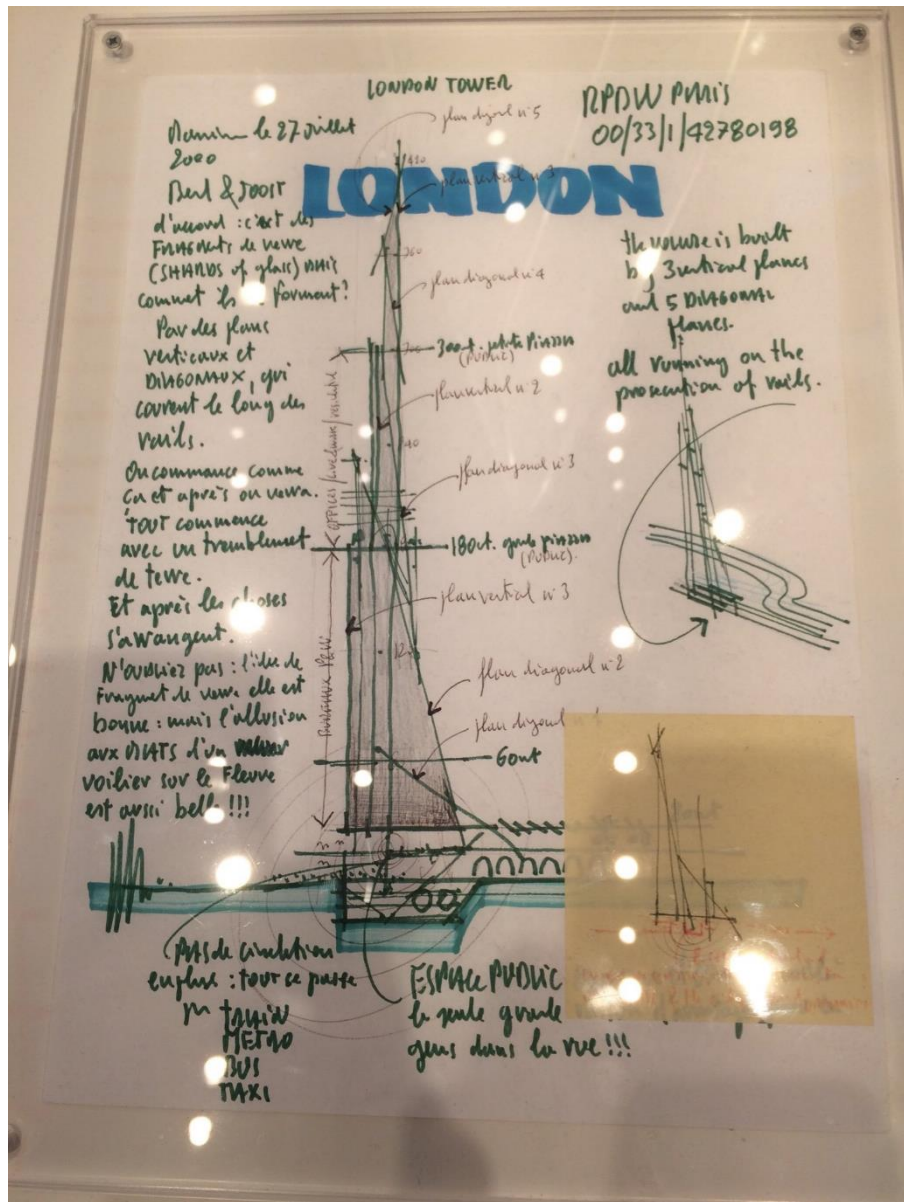
Thinking of the details

Kuopio, Finland:

Promoting good habits

The importance of iconic buildings:

Here the first ever draft by Renzo Piano of The Shard, London on a A4 side! (apologies for poor quality of image: taken at the Royal Academy, London).

And the finished result…

Food environment

The food environment plays an important role in promoting a healthy diet, but this is a complex system influenced and determined by a series of factors, including a person's proximity to food retail outlets and the type of food available.

Vulnerable groups are less likely to achieve a healthy and balanced diet: limited good quality review level evidence on the influence of the food environment on health and wellbeing outcomes.

However, existing evidence indicates that making healthier foods more accessible and increasing provision of low cost healthier food could be effective interventions, but these are likely to be more effective as part of a whole system approach to diet and obesity.

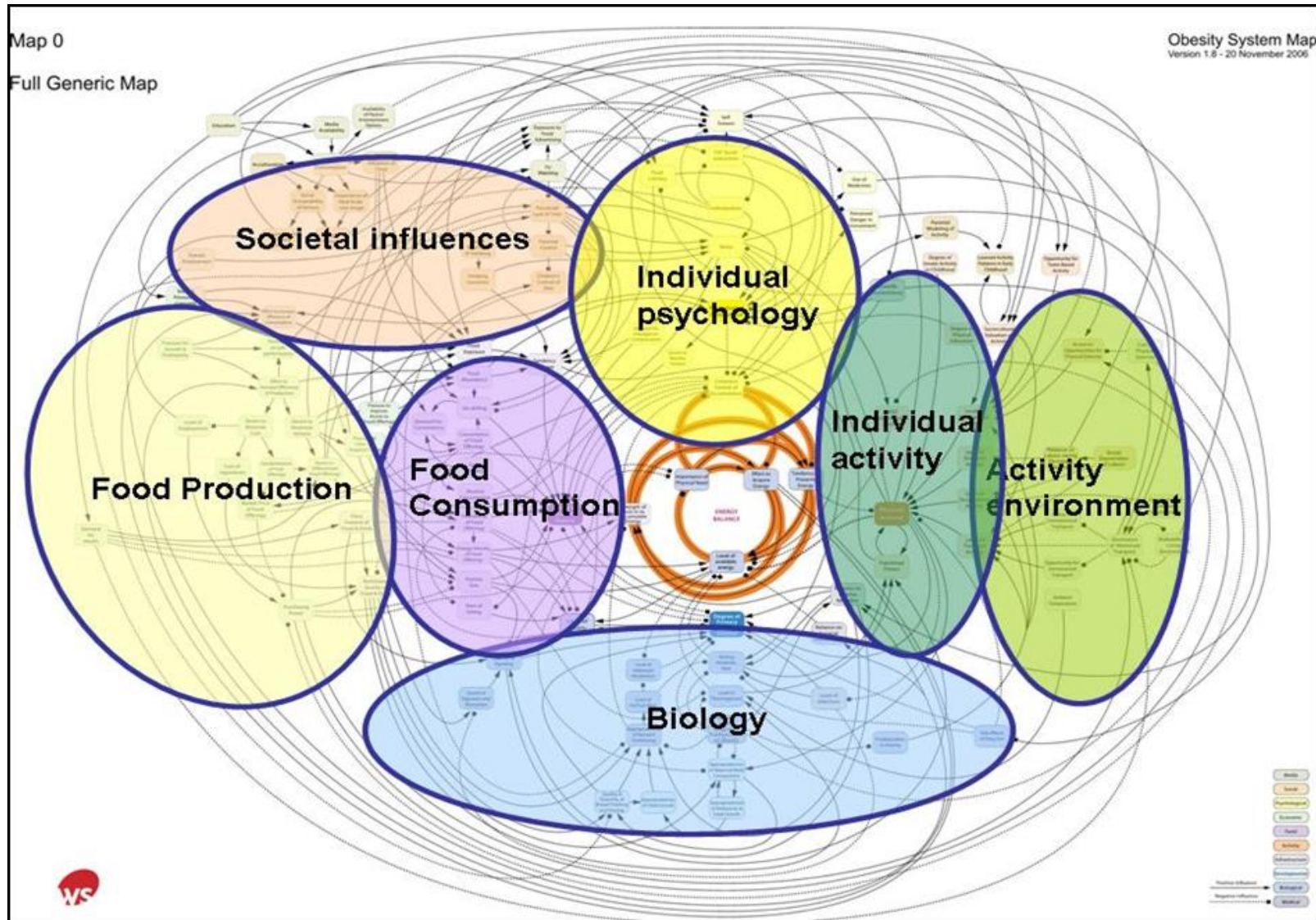Provision of healthy, affordable food for the general population

Enhance community food infrastructure

Obesity system map

(Foresight – Tackling obesities – Government Office for Science, 2007)

Copenhagen: green roof

Cagnes-sur-mer, France

Indoor market

Natural and sustainable environments

There is a very significant and strong body of evidence linking contact and exposure to the natural environment with improved health and wellbeing.

Natural and sustainable environment includes neighbourhood ecosystems and the resulting co-benefits between the environment and health.

Protecting the natural environment is essential to sustaining human civilization.

Access to and engagement with the natural environment

Adaptation to climate change

Reduce exposure to environmental hazards

Barking Riverside, London

Green infrastructure fit for climate change and urban living

Green Roof technology for Renzo Piano's California Academy of Science building (Renzo Piano retrospective at the Royal Academy, London).

Transport

Transportation plays an important role in supporting daily activities.

Active travel (cycling, walking and use of public transport) can increase physical activity levels and improve physical and mental wellbeing.

Prioritisation of active travel can also: reduce over reliance on motorised transport, contributing to improved air quality and a reduction in road injuries.

CYCLE LANE
LOOK RIGHT

Prioritise active travel and road safety

Provision of active travel infrastructure
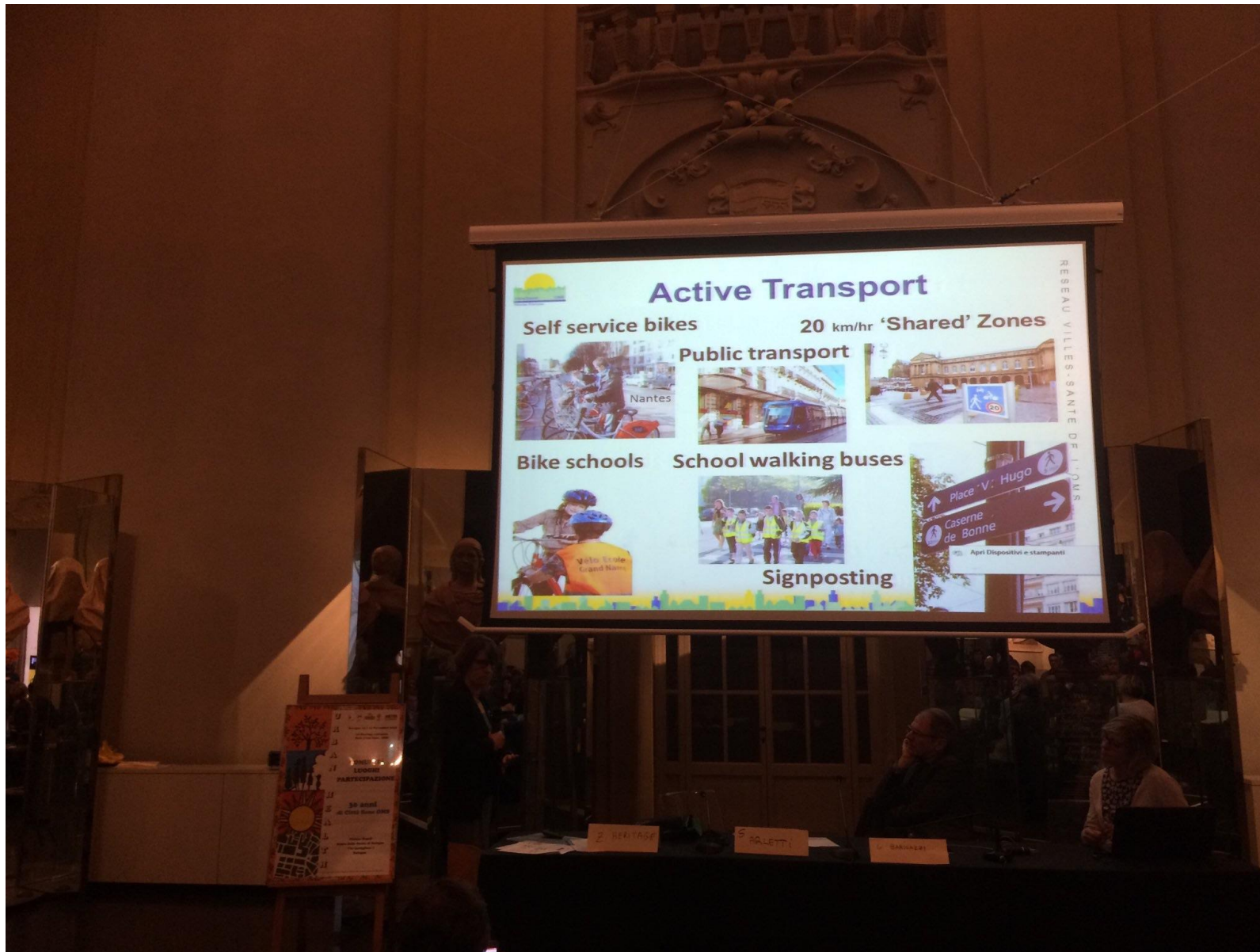
Provision of public transport

Cambridge, UK
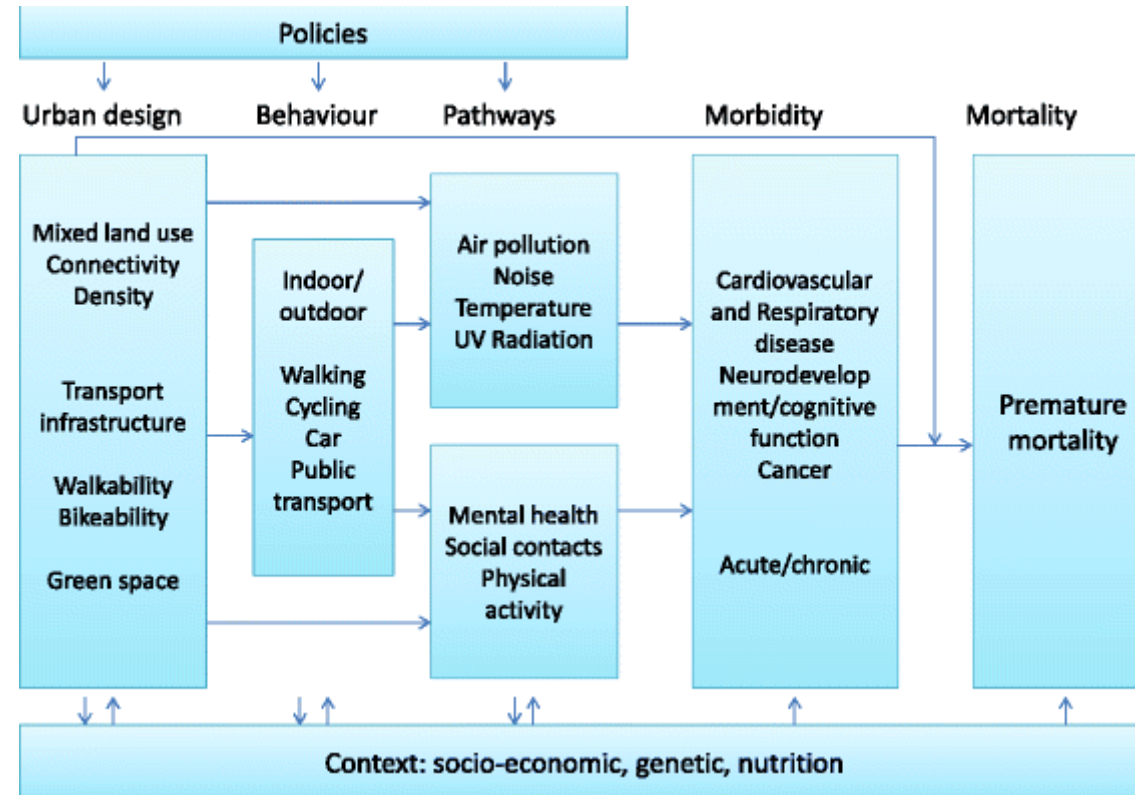
Bristol, UK

Active transport in the French WHO Healthy Cities network

(Belfast, Healthy Cities Conference, 2018)

Bologna, Healthy City

Healthy cities cannot be delivered without good policies: top-down or bottom-up...

Source: Nieuwenhuijsen, 2016

Let's not forget to celebrate diversity of our cities

Nantes, Les machines de l'ile.

Bologna, Healthy City

Key drivers of policy change

Urbanisation – climate change, but also:

Demographic trends (ageing, 80% Europeans living in cities by 2030/50% global population now urban)

+ economic, social and political tensions of unprecedented levels of international and internal migration

=> many of the urban policy responses deployed to promote health and well-being and reduce health inequalities (for example, urban and transport planning, environmental health and social services) can benefit the environment, deliver economic savings and promote social justice.

The international and national drivers to "do something"

Examples of international responses for healthy urban environments

- UN 2030 Sustainable Development Agenda and its goals: in particular SDG11:Make cities and human settlements inclusive, safe, resilient and sustainable

- UN Human Settlements Programme (HABITAT)'s New Urban Agenda Urban Agenda for the EU

- It is also at the core of the WHO European policy framework and strategy for health and well-being for the 21st century, Health 2020 (creation of resilient communities and environments = priority areas to achieve the strategic objectives of reducing health inequalities and improving governance for health)… and Phase VII Healthy Cities Programme with its People Place and Participation agenda

Carmichael, L., Racioppi, F., Calvert, T., and Sinnett, D. (2017). Environment and Health for European Cities in the 21st Century: Making a Difference, WHO Europe: Copenhagen, Denmark.

SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

11.1: Ensure access for all to adequate, *safe and affordable housing...*

11.2 Provide access to *safe, affordable, accessible and sustainable transport* systems for all, improving *road safety*...

11.3 Enhance *inclusive and sustainable urbanization* and capacity for *participatory, integrated and sustainable human settlement planning...*

11.6: Reduce the adverse per capita environmental impact of cities, including by paying special attention to *air quality and municipal and other waste management*

11.7: *P*rovide universal access to safe, inclusive and accessible, green and public spaces...

11.a: Support *positive economic, social and environmental* links between urban, per-urban and rural areas by strengthening national and regional development planning

11.b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans *towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters...*

The solutions: examples of what cities in Europe have achieved and how
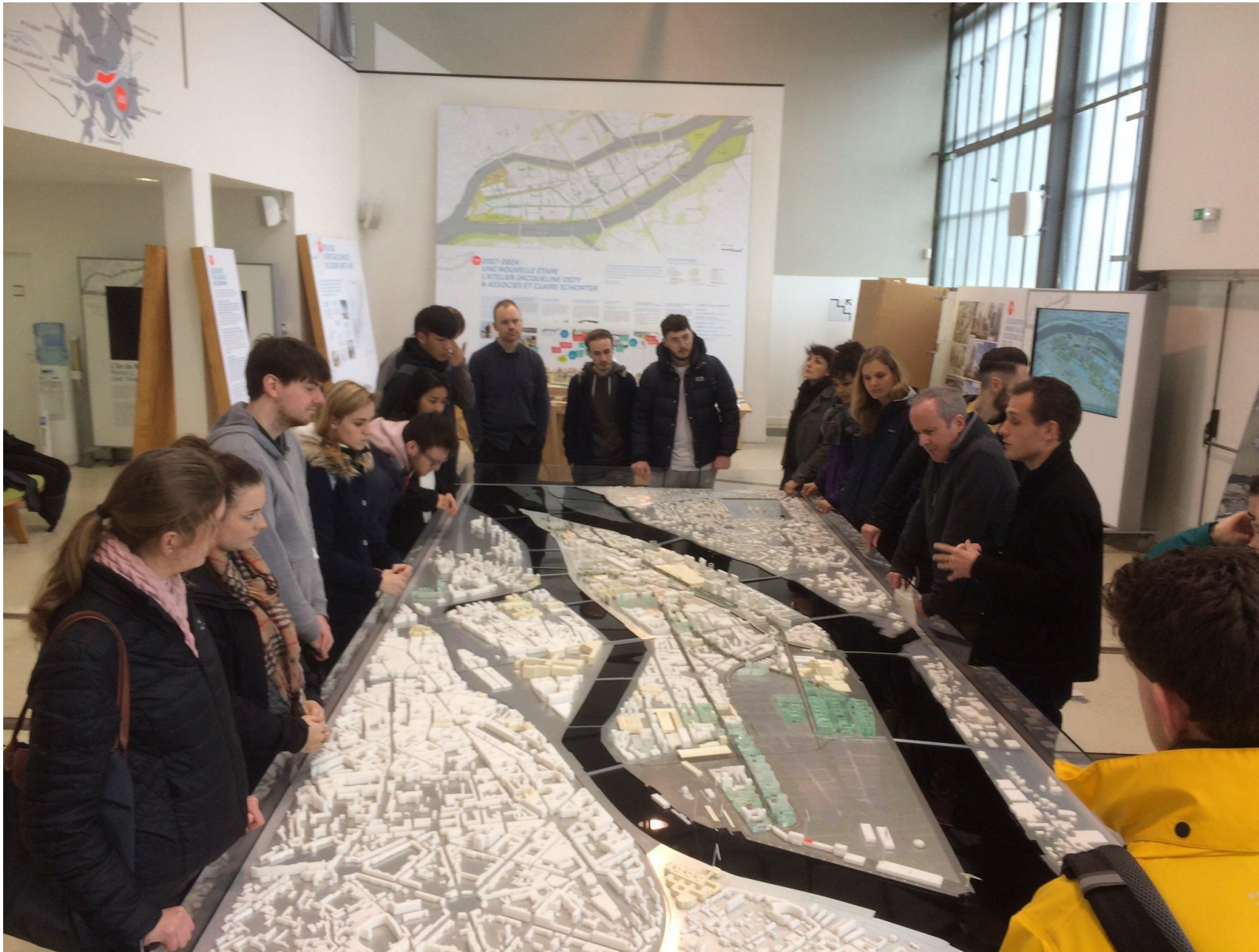
Nantes, France:

Masterplanning, masterplanning, masterplanning!

Nantes, France: shared spaces

Hammarby Sjöstad, Stockholm:eco-friendly urbandevelopment (1999 onwards)

Example of infrastructure integration: resource/transport/building

Masterplan ensuring high quality in design and environmental performance – Local authority driving up standards

West of England Joint Spatial Plan: size matters for infrastructure and urban planning

Hannam Hall, Bristol: partnership, design

England's first large-scale housing scheme to achieve the 2016 zero-carbon standard

Prioritising views and light, linking private and public realm, sense of community, encouraging active travel

Public Private sector partnership

Copenhagen: cycling city

Leadership

Partnership

Investment in infrastructure

Urbanism (and bike only bridges)

Sustainability agenda

Source: Mark Drane

Home Zones

Residential streets designed to be places for people, instead of just motor traffic

Reduction in vehicle flows and speeds

No change to self-reported walking of residents

Increase in self-reported time spent outdoors by residents

Source: Webster et al., 2006

Shared space in Brighton

New Road – busy, commercial street

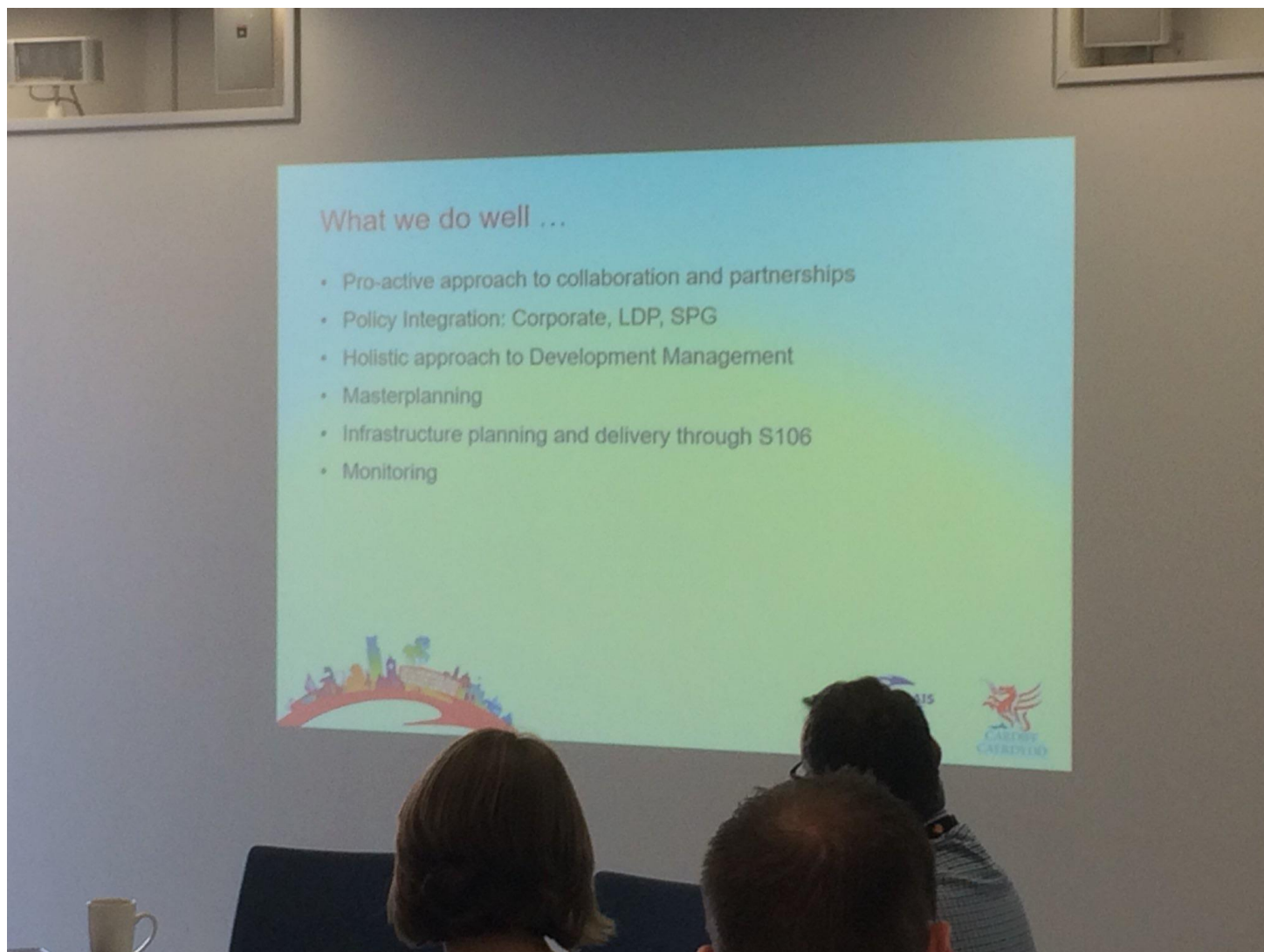**High quality granite paving, seating and lighting**

Very large increase in pedestrian activity (162%) and increase in stationary activity (600%)

Very large reduction in traffic volume (93%)

Well received by public and business community

Source: Jim Mayor, pers.comm.

Cardiff, Wales, UK:

Example of integration between health and planning

Bristol: Regulating planning
Health Impact Assessment - DM14

▸ Development should contribute to reducing the causes of ill health, improving health and reducing health inequalities within the city through: i. Addressing any adverse health impacts; and ii. Providing a healthy living environment; and iii. Promoting and enabling healthy lifestyles as the normal, easy choice; and iv. Providing good access to health facilities and services.

▸ Developments that will have an unacceptable impact on health and wellbeing will not be permitted.

▸ A Health Impact Assessment will be require100 or more units, non-residential developments of 10,000m² or more and for other developments where the proposal is likely to have a significant impact on health and wellbeing. d for residential developments of Where significant impacts are identified, measures to mitigate the adverse impact of the development will be provided and/or secured by planning obligations.

Example - Salford City Council: planning policy

Hot food takeaways and schools

▸ Where a hot food take away is proposed within 400 metres of a secondary school, planning permission will only be granted subject to a condition that the premises are not open to the public before 5pm Monday to Friday and there are no over the counter sales before that time.

▸ This policy will not apply to hot food take aways proposed in:

▸ A) A designated local centre, town centre or the Manchester/Salford City Centre; or

▸ B) Locations that would be unlikely to be accessed by pupils of a nearby school.

▸ https://www.salford.gov.uk/media/385433/hfta_spd_final_with_amendment_to_rj.pdf

East London Green Grid

Green infrastructure for long term environmental and social benefits

Partnership and planning policy instruments for multifunctional spaces and regeneration

Source: Laurence Carmichael

Vauban, Freiburg (from 1993 onwards)

Promoting green values and social interaction: energy, transport/mobility, design and participation, public spaces

Example: 20 mph speed limit in Portsmouth

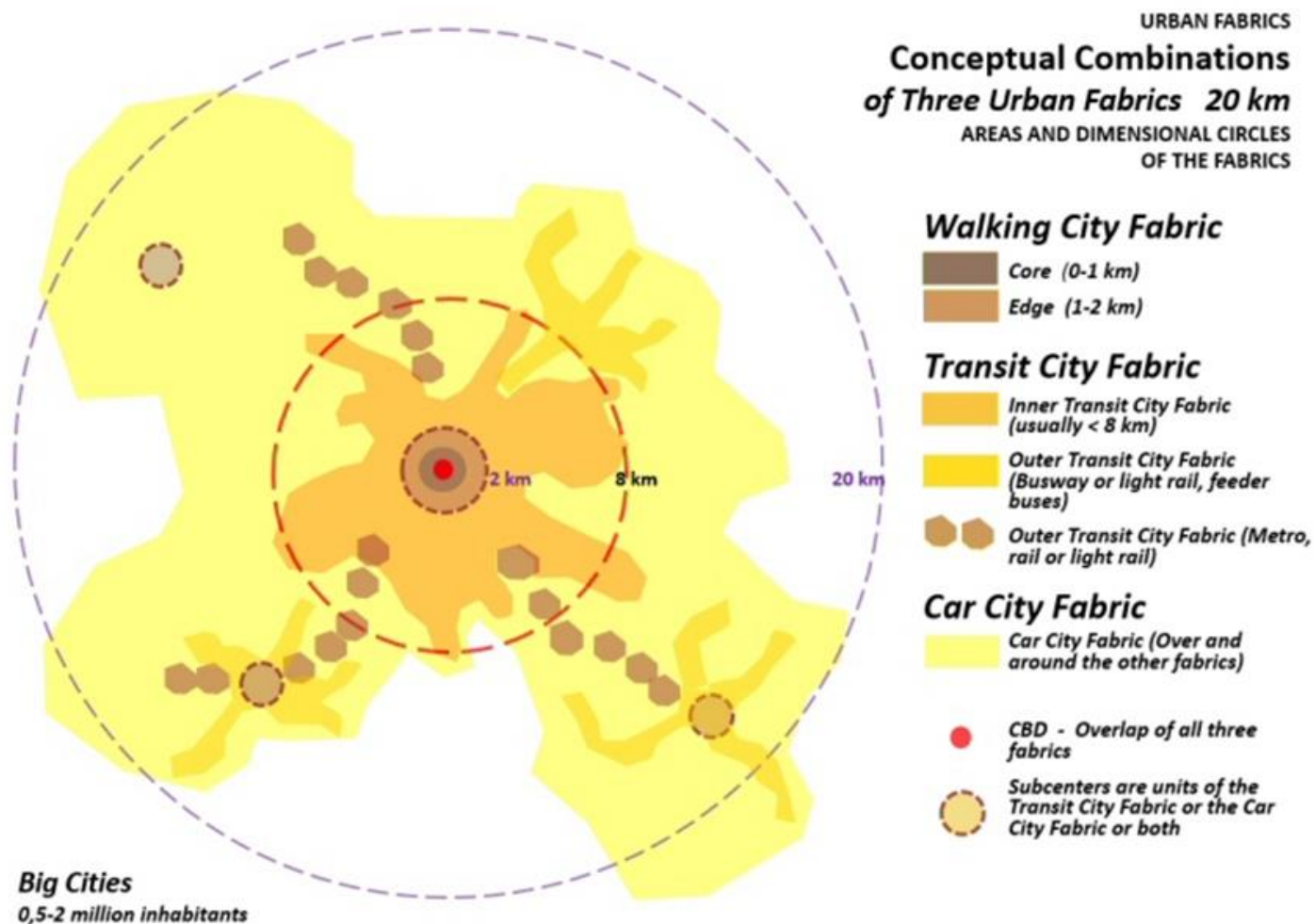**Area-wide speed limit reduction to 20 mph using signing alone**

Modest reduction in vehicle speeds

No before measurement of walking activity

Children walking to school increased from 67.5 to 72.5%

Source: DfT, 2010

URBAN FABRICS

Conceptual Combinations
of Three Urban Fabrics **20 km**
AREAS AND DIMENSIONAL CIRCLES
OF THE FABRICS

Walking City Fabric

- Core (0-1 km)
- Edge (1-2 km)

Transit City Fabric

- Inner Transit City Fabric (usually < 8 km)
- Outer Transit City Fabric (Busway or light rail, feeder buses)
- Outer Transit City Fabric (Metro, rail or light rail)

Car City Fabric

- Car City Fabric (Over and around the other fabrics)

- CBD - Overlap of all three fabrics
- Subcenters are units of the Transit City Fabric or the Car City Fabric or both

Big Cities
0,5-2 million inhabitants

28.11.2013 **UF** Leo Kosonen

Transport planning for a healthy city: Kuopio

Kuopio (Finland) has developed a sophisticated transport system prioritising walking, cycling and public transport in the city centre and relegating car use to the suburbs

Not like this!

Source: Morag Lindsey

Tools and support available to cities

How to integrate public health evidence into planning practice?

Health/sustainability indicators:

What is the importance of health indicators in planning processes/policy? At what stage of policy making should they be used?

▸ Health indicators important to operationalise the buy-in and help to assess how planners, developers, local authorities and communities are doing in implementing healthy environments

▸ Large house builder had recently reported they 'don't do health' because no-one is asking them to

▸ It was also suggested that targets should be set at the local level

▸ Many types of indictors and different roles in decision-making process: target, transparency monitoring

▸ Examples of indicators: http://ec.europa.eu/environment/integration/research/newsalert/pdf/indicators_for_sustainable_cities_IR12_en.pdf p.17

Integrating into the neighbourhood

1 Connections
Does the scheme integrate into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the development site?

2 Facilities and services
Does the development provide (or is it close to) community facilities, such as shops, schools, workplaces, parks, play areas, pubs or cafes?

3 Public transport
Does the scheme have good access to public transport to help reduce car dependency?

4 Meeting local housing requirements
Does the development have a mix of housing types and tenures that suit local requirements?

Creating a place

5 Character
Does the scheme create a place with a locally inspired or otherwise distinctive character?

6 Working with the site and its context
Does the scheme take advantage of existing topography, landscape features (including water courses), wildlife habitats, existing buildings, site orientation and microclimates?

7 Creating well defined streets and spaces
Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?

8 Easy to find your way around
Is the scheme designed to make it easy to find your way around?

Street & home

9 Streets for all
Are streets designed in a way that encourage low vehicle speeds and allow them to function as social spaces?

10 Car parking
Is resident and visitor parking sufficient and well integrated so that it does not dominate the street?

11 Public and private spaces
Will public and private spaces be clearly defined and designed to be attractive, well managed and safe?

12 External storage and amenity space
Is there adequate external storage space for bins and recycling as well as vehicles and cycles?

BUILDING FOR LIFE 12
The sign of a good place to live
www.builtforlifehomes.org

By David Birkbeck and Stefan Kuczkowski
Edited by Paul Collins and Brian Quinn

http://builtforlifehomes.org/downloads/BfL12_201501.pdf

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Healthy Urban Planning Checklist

- NHS London – Healthy Urban Development Unit (HUDU)
- Builds on 2012 Olympic Legacy Masterplan
- 'major' developments
- Four themes
  - Healthy housing
  - Active travel
  - Healthy environment
  - Vibrant neighbourhoods
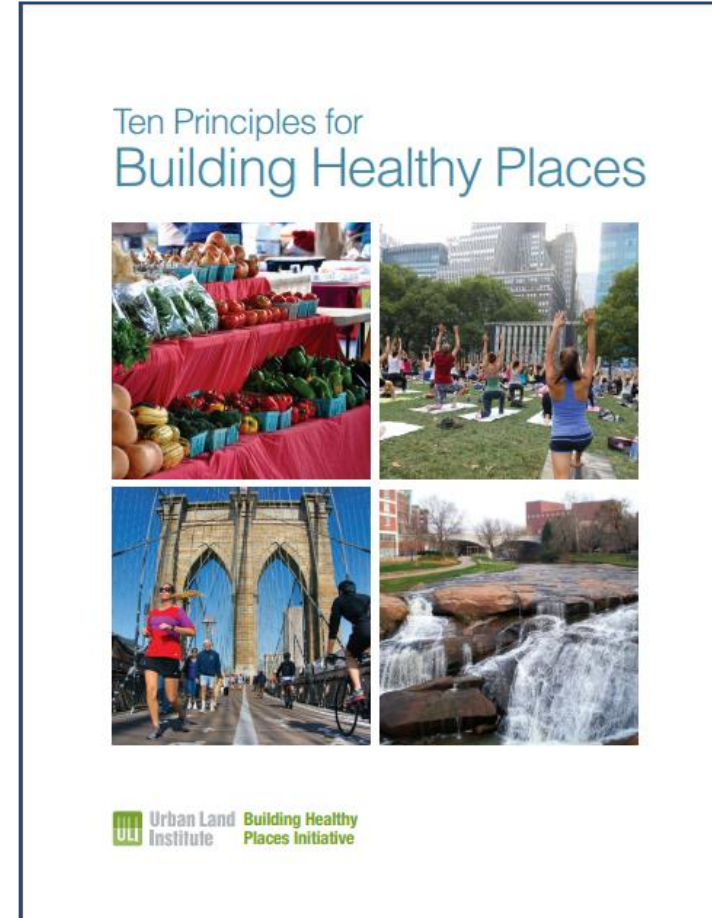
- London-based (links to London Plan policy)

http://www.healthyurbandevelopment.nhs.uk/wp-content/uploads/2014/04/Healthy-Urban-Planning-Checklist-March-2014.pdf

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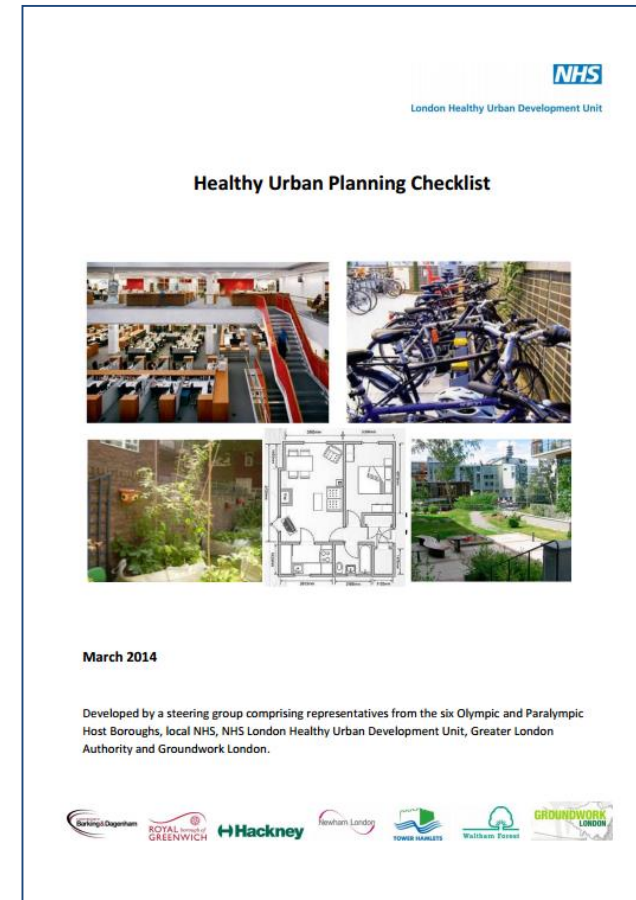
Building Healthy Places

- Urban Land Institute (USA)
- Healthy communities
- Public health – wellbeing – quality of life
  - Put people first
  - Recognise the economic value
  - Empower champions for health
  - Energize shared spaces
  - Make healthy choices easy
  - Ensure equitable access
  - Mix it up
  - Embrace unique character
 - Promote access to healthy food
  - Make it active

(Eitler et al, 2013)

Ten Principles for
Building Healthy Places

Urban Land Institute | Building Healthy Places Initiative

http://uli.org/report/ten-principles-for-building-healthy-places/

Healthy Urban Development Checklist

•

- NSW Government / NSW Health
- Masterplans and policy documents
- 10 checklist chapters
  - Healthy food
  - Physical activity
  - Housing
  - Transport and physical connectivity
  - Quality employment
  - Community safety and security
  - Public open space
  - Social infrastructure
  - Social cohesion and social connectivity
  - Environment and health

http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx
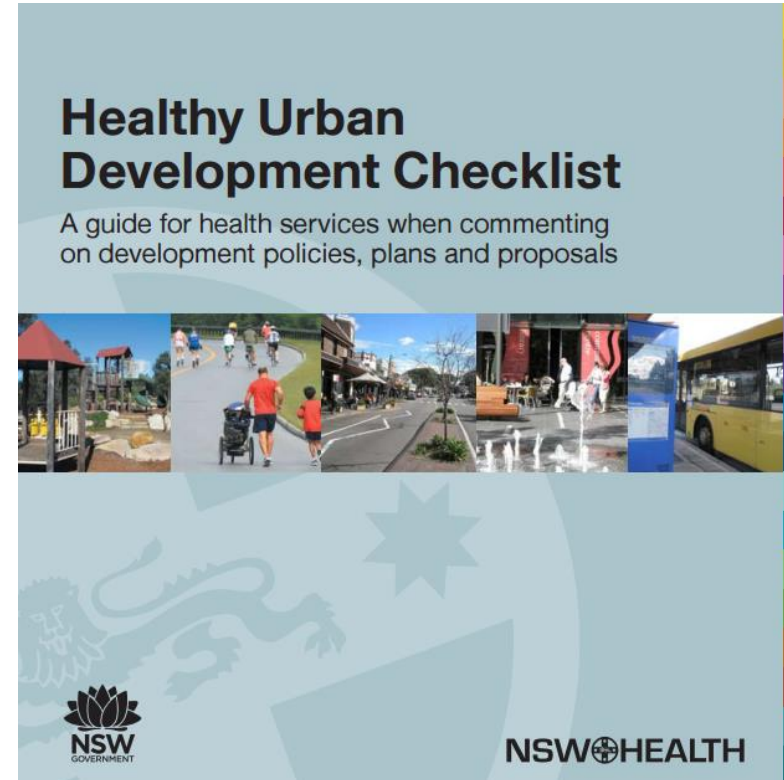
Healthier Homes, Healthier Communities

- Town and Country Planning Association (TCPA)
- Capacity building programme
- Policy-based checklist
- Aligned with National Planning Policy Framework (NPPF)

https://www.tcpa.org.uk/healthyplanning

The link to the document is called '**Reuniting health with planning. How planning and public health practitioners can work together to implement health and planning reforms in England (2012)**
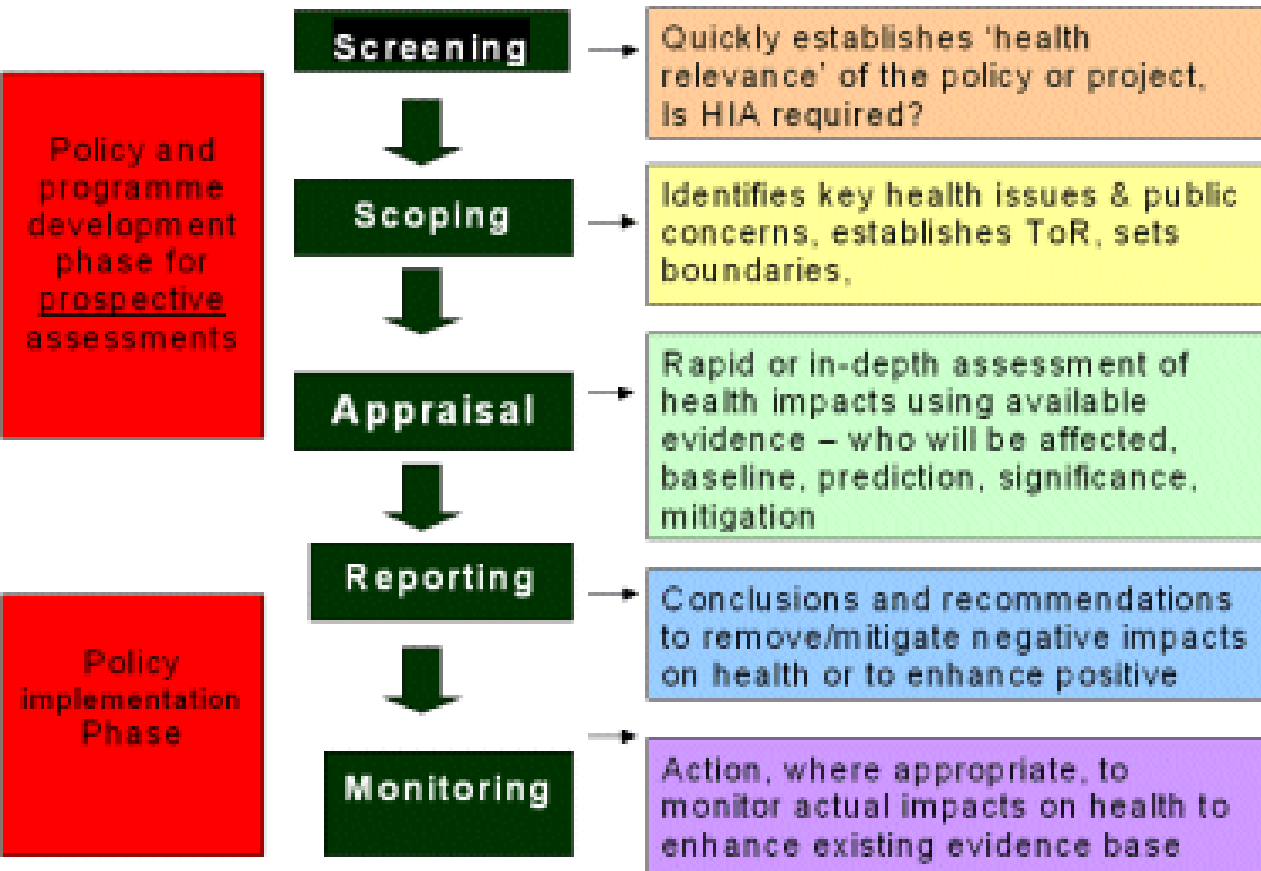
Healthy and Sustainable Places

- United Nations University and World Urban Campaign
- In advance of UN Habitat III (2016)
- Research project
- 10 principles
  - Ignite the senses
  - Build for health and wellbeing
  - Collaborate for equity and access
  - Exude openness and flexibility
  - Embrace diversity and complexity
  - Seek balance and harmony
  - Engage citizens dynamically
  - Enact participatory governance
  - Privilege integration and holistic approaches
  - Contemplate the paradoxes

PRINCIPLES FOR
**HEALTHY AND
SUSTAINABLE PLACES**

WORLD URBAN CAMPAIGN   UNITED NATIONS UNIVERSITY   thinkCITY

http://icuh2016.org/wp-content/uploads/2016/02/Principles-for-Healthy-and-Sustainable-Places.pdf

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Health Impact Assessment

HIA Procedure

Policy and programme development phase for _prospective_ assessments

Screening → Quickly establishes 'health relevance' of the policy or project. Is HIA required?

Scoping → Identifies key health issues & public concerns, establishes ToR, sets boundaries,

Appraisal → Rapid or in-depth assessment of health impacts using available evidence – who will be affected, baseline, prediction, significance, mitigation

Policy implementation Phase

Reporting → Conclusions and recommendations to remove/mitigate negative impacts on health or to enhance positive

Monitoring → Action, where appropriate, to monitor actual impacts on health to enhance existing evidence base

Combination of procedures, methods and tools

…that systematically judges the potential, and sometimes unintended, effects of a policy, programme or project

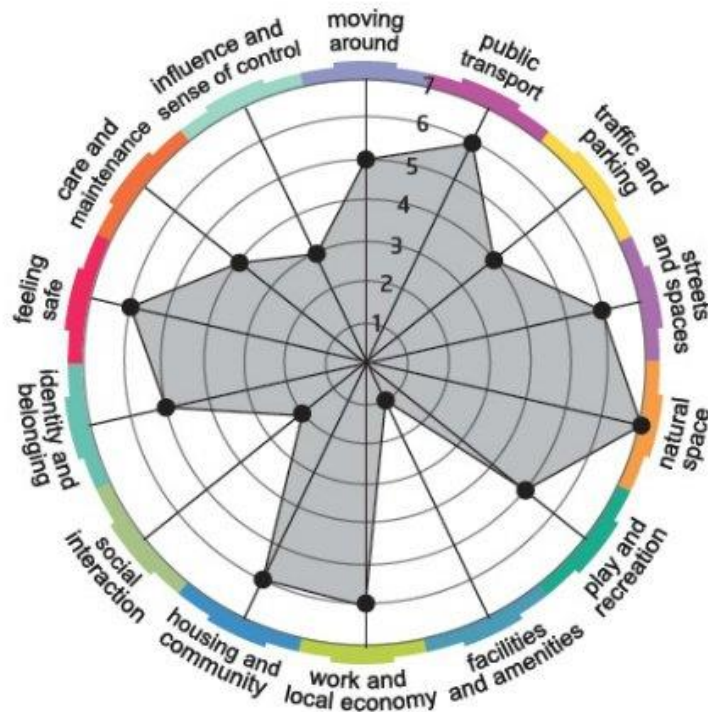… on the health of a population and the distribution of those effects within the population.

HIA identifies appropriate actions to manage those effects.

International Association for Impact Assessment, 2006 adapted from 1999 ECHP definition

http://www.iaia.org/publicdocuments/special-publications/SP5.pdf?AspxAutoDetectCookieSupport=1

Place Standard

Place Standard –
How good is Our Place?

The Place Standard tool provides a simple framework to structure conversations about place. It allows you to think about the physical elements of a place (for example its buildings, spaces, and transport links) as well as the social aspects (for example whether people feel they have a say in decision making).
The tool provides prompts for discussions, allowing you to consider all the elements of a place in a methodical way. The tool pinpoints the assets of a place as well as areas where a place could improve.

https://placestandard.scot/

Building with Nature

The UK's first green infrastructure benchmark

23 standards

1. Core
2. Wellbeing
3. Water
4. Wildlife

Post-construction award

Accreditation:

Achieved + Excellent

A tool for proactive, early engagement

A framework of consistent, evidence-based standards

A mechanism to secure: net gain, health and wellbeing, natural water management and landscape connections

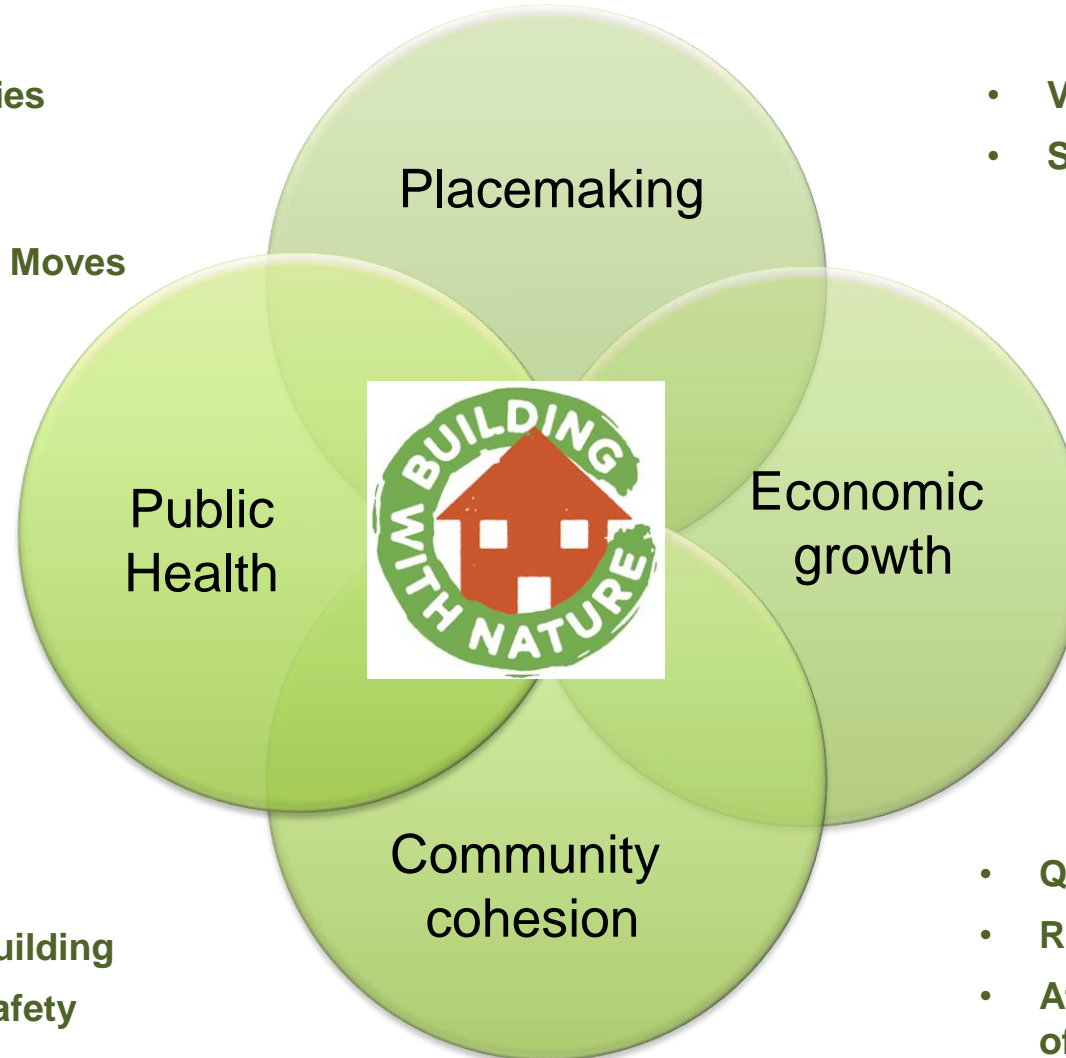New opportunities to deliver nature-rich development

https://www.buildingwithnature.org.uk/

Common cause with others

- **Health inequalities**
- **'Public health infrastructure'**
- **Gloucestershire Moves**

- **Vision 2050**
- **Shaping the City**

Placemaking

Public Health

BUILDING WITH NATURE

Economic growth

Community cohesion

- **Social justice**
- **Community building**
- **Community safety**

- **Quality of life**
- **Resilience**
- **Attraction and retention of businesses and talent**

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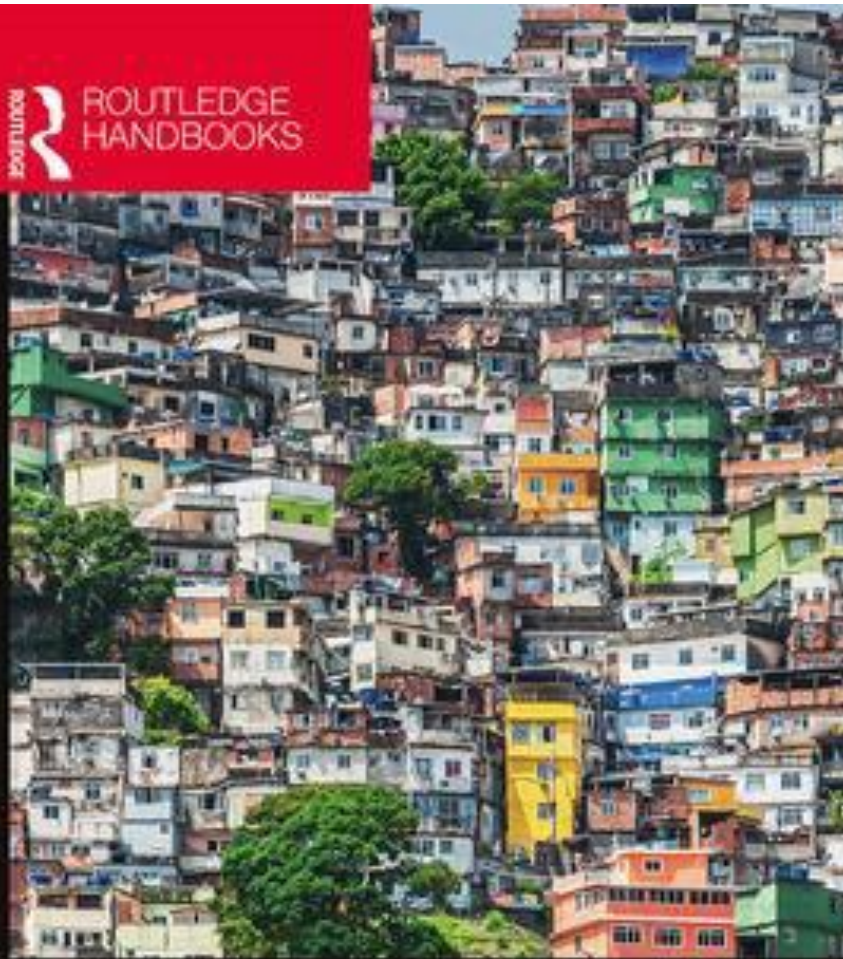
Handbook of Global Urban Health

Edited by Igor Vojnovic, Amber L. Pearson, Gershim Asiki,
Geoffrey DeVerteuil, and Adriana Allen

Phase VII Healthy Cities

WHO Healthy Cities and the Place People Participation Agenda

Sharing experience and good practice amongst WHO Healthy Cities across Europe

Sharing experience and good practice amongst WHO Healthy Cities across Europe

Here dancing Irish style in Belfast with Healthy Cities delegates!

Cooperation between academics and practitioners –

Here Charlotte Marchandise and I at the Belfast Healthy Cities conference

Listening to society too!

Thank you!

Laurence Carmichael

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