BRE Healthy Cities Index
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Part of the BRE Trust
The BRE Healthy Cities Index is a tool that provides an assessment of global cities against a set of indicators that measure the impact of the urban environment on health and wellbeing. It is an agenda setter for city governments, identifying their unique health challenges and priority areas for action.
Healthy Cities Index – an Development Timeline

- BRE TRUST CITIES RESEARCH PROGRAMME
- HEALTHY CITIES CONCEPT DEVELOPED AND RESEARCHED 2015
- DUBAI LAND DEPARTMENT ENGAGEMENT 2016-17
- SOUTHWARK HEALTHY PLANNING PROJECT, 2017
- HEALTHY CITIES RESEARCH PAPER PUBLISHED, OCT 2017
- LAUNCH OF HEALTHY CITIES INDEX, NOV 2017
WHO – 12.6 million global deaths/annum are from unhealthy environments.
Air pollution contributes to 3.7 million deaths annually
The Burden of Non-Communicable Disease

Proportion of global deaths, under the age of 70, by cause of death

- Non-communicable diseases, 52%
- Communicable, maternal, perinatal and nutritional conditions, 34%
- Injuries, 14%

... from non-communicable diseases

- Cardiovascular diseases, 37%
- Respiratory diseases, 8%
- Diabetes, 4%
- Cancer, 27%
- Other, 23%

World Health Organisation, 2014
World Economic Forum estimates: US$47 trillion by 2030
Why Cities?

- 662 cities > 1 million people by 2030*
- 41 megacities of >10 million people by 2030*
- Important enablers of development.
- Help create healthy, sustainable, resilient and prosperous places for society.

*The World’s Cities in 2016, United Nations
“The design and location of homes, schools, workplaces, stores, streets and open spaces – our built environment – has a tremendous impact on physical, mental and social health.”

Dr. Richard Jackson, Former Director National Center for Environmental Health, Centers for Disease Control and Prevention
Index Development

Index Guiding Principles:

1. Clear conceptual framework
2. Global and local
3. Evidence-based
4. Focus on avoiding inequalities
5. Aligned with existing data/indicator systems
6. Peer reviewed
7. Informed by users
8. Promotes a systems approach
9. Spatial
10. Focused on built environment
Indicators and Data

- Measures the urban environment impact on health & wellbeing via 10 categories (>50 indicators)
- Focus is:
  - natural & physical environment
  - Influenced by built environment professionals
- Data from publicly available sources
- Data challenges (e.g. consistency, scale, language barriers)
- Considerations around data sharing and usage

BRE HCI Categories:
1. Air quality
2. Food access
3. Green infrastructure
4. Housing and Buildings
5. Leisure and Recreation
6. Noise pollution
7. Resilience
8. Safety and Security
9. Transport
10. Utilities and Services
Index Cities (initial round)

- Amman, Jordan
- Amsterdam, Netherlands
- Barcelona, Spain
- Bogota, Colombia
- Boston, USA
- Buenos Aires, Argentina
- Dubai, UAE
- Guadalajara, Mexico
- Haiphong, Vietnam
- Johannesburg, South Africa
- London, UK
- Los Angeles, USA
- Makati, Philippines
- Melbourne, Australia
- Mecca, Saudi Arabia
- San Diego, USA
- Shanghai, China
- Taipei, Taiwan
- Toronto, Canada
- Zagreb, Croatia
## BRE HCI Causal Pathways

### Urban Environment Exposures

- Poor healthy food access
- Urban sprawl
- Poor access to services*
- Crime & safety cues
- Car-centric design
- Lack of greenspace
- Air pollution
- Noise pollution
- Poor water infrastructure
- Poor waste infrastructure
- Poor sanitation infrastructure
- Flooding
- Natural disasters
- Urban heat island effect
- Excess heat
- Excess cold
- Poor ventilation
- Unsafe materials
- Inadequate lighting
- Low space/overcrowding
- Insecure tenure

### Direct Exposures

- Toxins/particles
- Noise (dB)
- Infectious agents
- Deep/fast moving water
- Building/infrastructure damage
- Damp/mould
- Toxins
- glare/<daylight
- Insecure housing

### Behavioural Outcomes

- Unhealthy diet
- Physical inactivity
- Social isolation
- Traffic danger
- Stress/sleep disturbance

### Health Outcomes

- Multiple chronic diseases
- Cardiovascular disease
- Respiratory disease
- Allergies
- Mental ill health
- Deaths/injuries
- Drowning
- Heat exhaustion
- Diseases (including fatal)

### Key

- Robust evidence for a causal link
- Association or other link

*Includes employment, education, leisure etc.
Where Next?

- HCI launch - November 2017 in London
- Webinar in USA, Nov 2017
- Ministry of Climate conference in Dubai in Dec 2017
- Working with more cities and health agencies in UK & USA
- Further identification of partners in built environment and health