# CITIES, HEALTH AND WELL-BEING NOVEMBER 2011

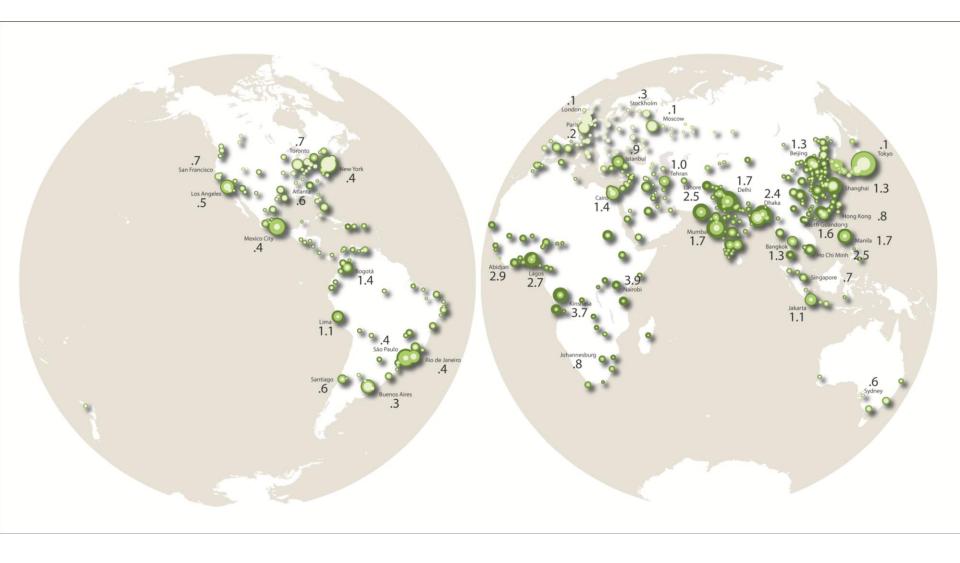
# **Ricky Burdett**

Professor of Urban Studies; Director, LSE Cities and Urban Age, London School of Economics

Linking the Physical to the Social



# **URBAN GROWTH RATES WORLDWIDE**



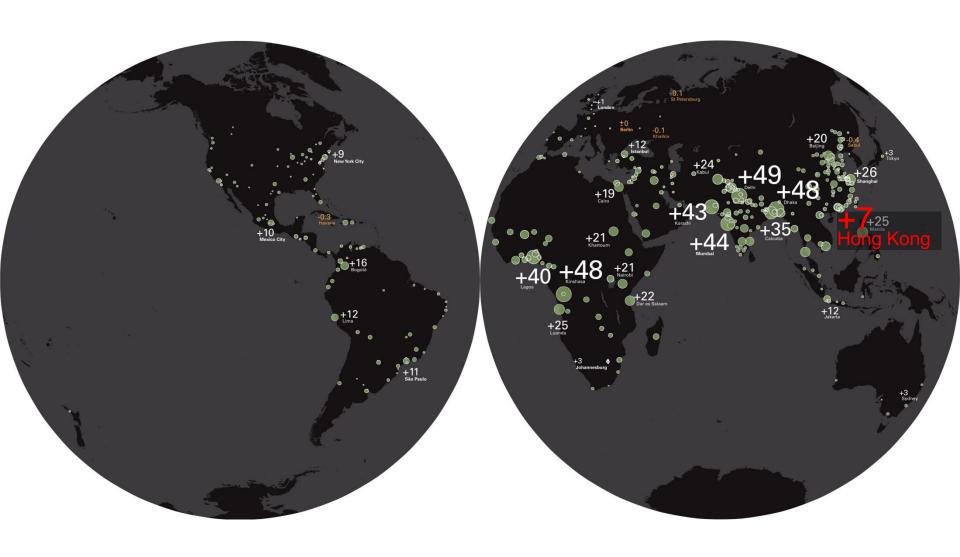
# **MEXICO CITY**

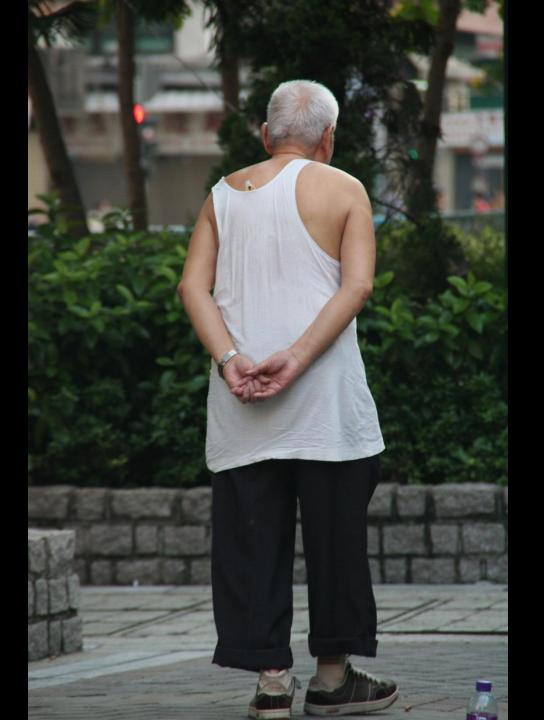


# **HONG KONG**

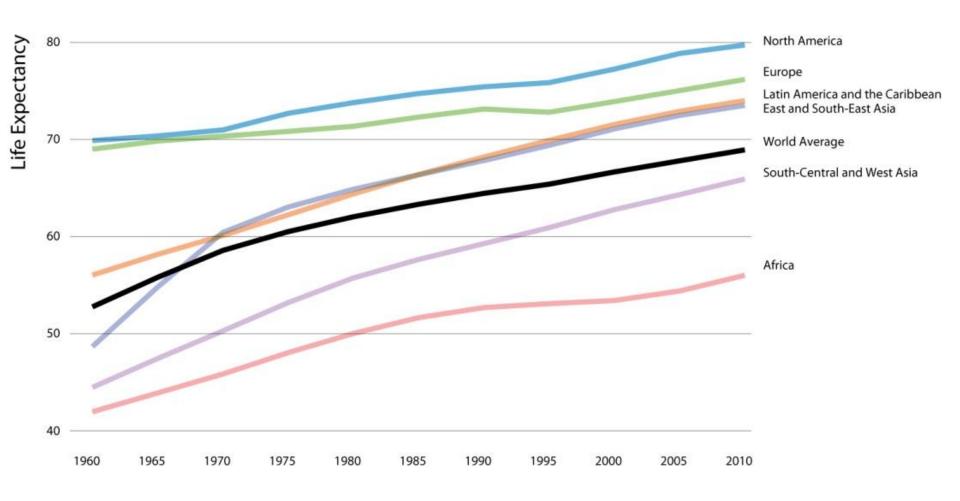


# **URBAN GROWTH PER HOUR**



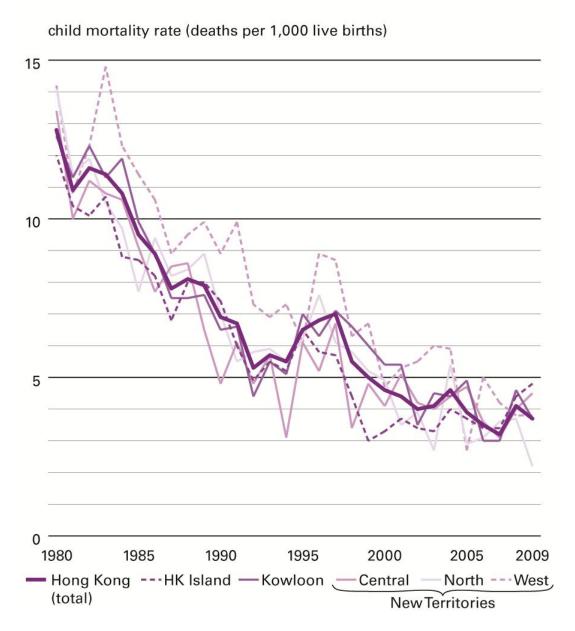


# **LIFE EXPECTANCY IN THE WORLD (1960-2010)**

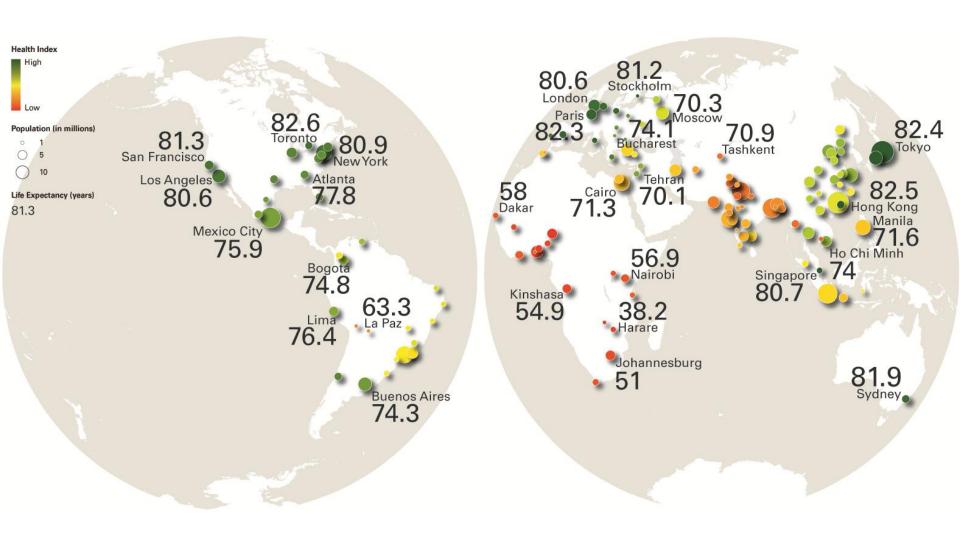




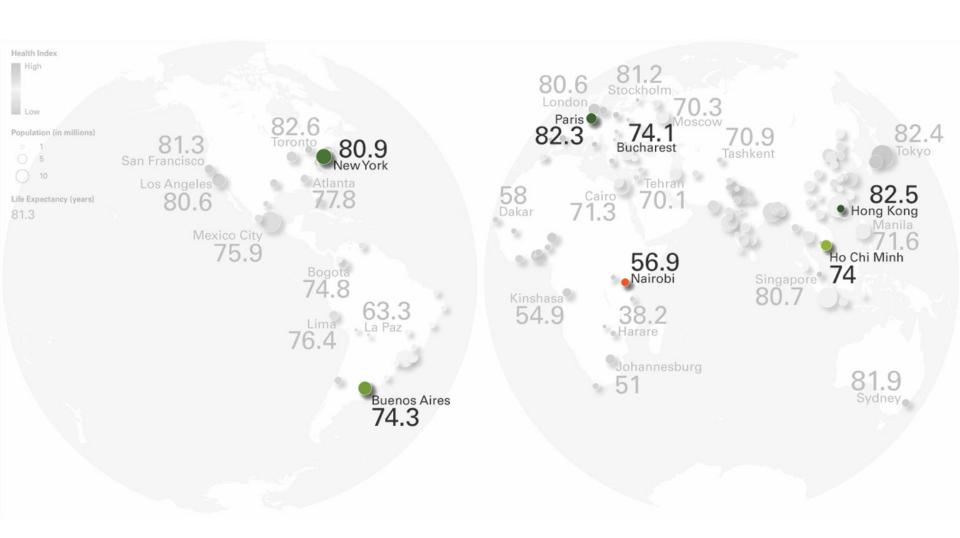
# **CHILD MORTALITY IN HONG KONG (1980-2009)**



#### METROPOLITAN HEALTH INDEX AND LIFE EXPECTANCY



#### **METROPOLITAN HEALTH INDEX AND LIFE EXPECTANCY**



# CITIES HEALTH AND WELL-BEING LIFE EXPECTANCY IN SELECTED WORLD CITIES

| HONG KONG 82.5 | 82.5 |
|----------------|------|
|----------------|------|

**TOKYO** 82.4

**PARIS** 82.3

STOCKHOLM 81.2

NEW YORK 80.9

SINGAPORE 80.7

LONDON 80.6

LIMA 76.4

MOSCOW 70.3

LA PAZ 63.3

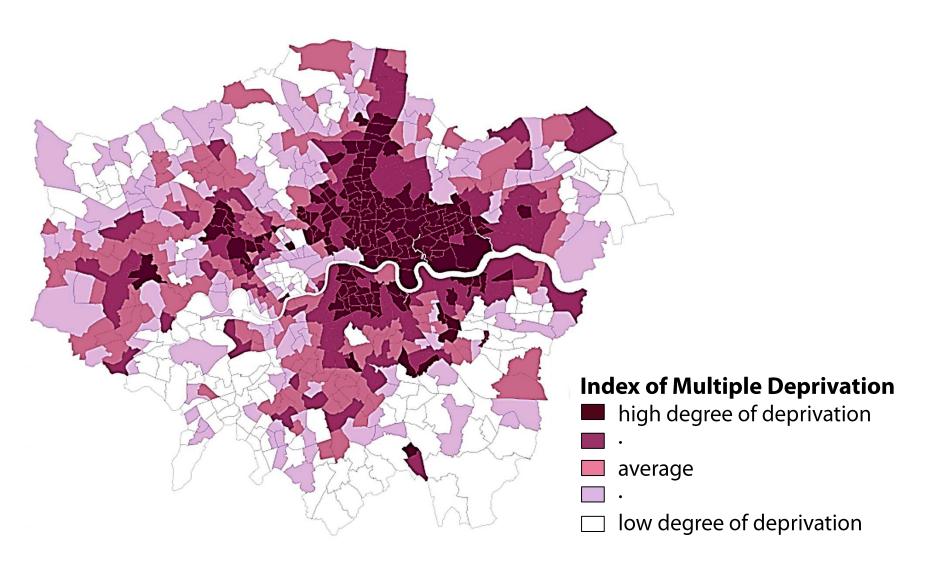
JOHANNESBURG 51.0

HARARE 38.2

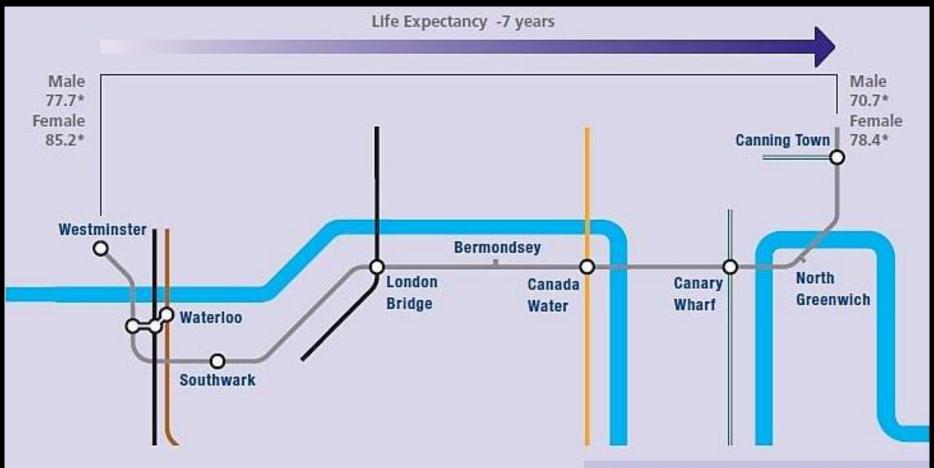




## **DEPRIVATION IN LONDON**



#### **LIFE EXPECTANCY IN LONDON**



Electoral wards just a few miles apart geographically have life expectancy spans varying by years. For instance, there are eight stops between Westminster and Canning Town on the Jubilee Line - so as one travels east each stop, on average, marks nearly half a shortened lifespan\*

\*\*CI= Confidence Interval

- \* Male Life Expectancy 77.7 (CI\*\* 75.5 79.9)
- \* Female Life Expectancy 85.2 (CI\*\* 82.2 88.2)
- \* Male Life Expectancy 70.7 (CI\*\* 69.0 72.5)
- \* Female Life Expectancy 78.4 (CI\*\* 76.7 80.2)

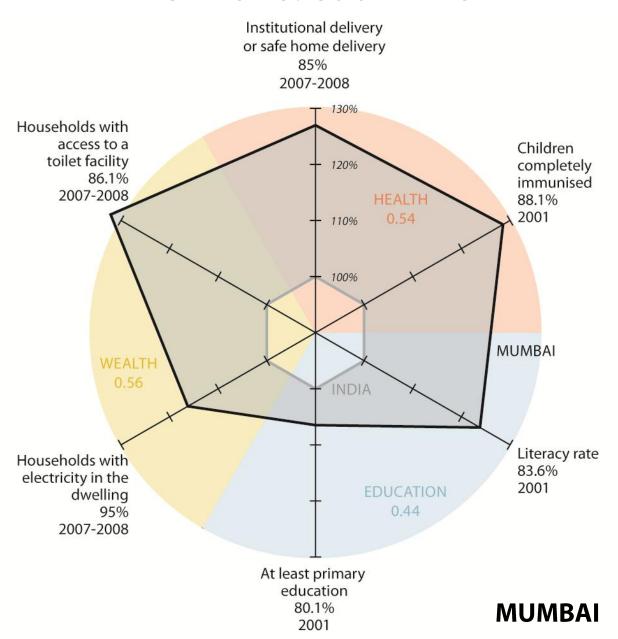


**London 2012 Olympics** 

| Extended Metropolitan Region<br>(EMR)  | Nation                      | EMR<br>pop. 2010        | Health | Education | Wealth | Extended Metropolitan Region (EMR) | Nation                | EMR<br>pop. 2010        | Health    | Education | Wealth |
|--|-----------------------------|-------------------------|--------|-----------|--------|------------------------------------|-----------------------|-------------------------|-----------|-----------|--------|
| Hong Kong  | Hong Kong                   | 7,069,378               | 0.88   | 0.66      | 0.77   | Porto Alegre                       | Brazil                | 4,264,436               | 0.59      | 0.58      | 0.65   |
| Osaka  | Japan                       | 18,488,755              | 0.86   | 0.75      | 0.73   | Nanchang                           | China                 | 4,836,946               | 0.59      | 0.54      | 0.60   |
| Tokyo  | Japan                       | 42,607,376              | 0.86   | 0.76      | 0.74   | Curitiba                           | Brazil                | 3,446,485               | 0.59      | 0.58      | 0.66   |
| Singapore  | Singapore                   | 4,836,691               | 0.86   | 0.64      | 0.78   | Makassar                           | Indonesia             | 2,579,112               | 0.59      | 0.50      | 0.49   |
| Stockholm  | Sweden                      | 1,990,493               | 0.85   | 0.76      | 0.78   | Fuzhou                             | China                 | 7,252,632               | 0.59      | 0.53      | 0.60   |
| Rome   | Italy                       | 4,101,228               | 0.83   | 0.73      | 0.74   | Sio Paulo                          | Brazil                | 26,193,667              | 0.58      | 0.58      | 0.67   |
| Madrid   | Spain                       | 6,418,863               | 0.82   | 0.75      | 0.75   | Salvador                           | Brazil                | 3,924,954               | 0.58      | 0.57      | 0.60   |
| Paris  | France                      | 12,177,135              | 0.82   | 0.73      | 0.78   | Medan                              | Indonesia             | 5,255,905               | 0.58      | 0.53      | 0.50   |
| Berlin   | Germany                     | 4,945,877               | 0.81   | 0.79      | 0.71   | Ankara                             | Turkey                | 4,771,716               | 0.58      | 0.55      | 0.66   |
| Sydney   | Australia                   | 7,253,400               | 0.81   | 0.89      | 0.75   | Rio de Janeiro                     | Brazil                | 13,331,714              | 0.58      | 0.58      | 0.64   |
| Randstad   | Netherlands                 | 6,969,690               | 0.80   | 0.77      | 0.77   | Jakarta                            | Indonesia             | 34,772,342              | 0.58      | 0.51      | 0.51   |
| London   | United Kingdom              | 14,830,051              | 0.79   | 0.71      | 0.77   | Istanbul                           | Turkey                | 15,613,932              | 0.57      | 0.52      | 0.68   |
| Toronto  | Canada                      | 6,456,145               | 0.79   | 0.79      | 0.76   | Chennai                            | India                 | 12,397,681              | 0.57      | 0.44      | 0.55   |
| San Francisco-San Jose   | USA                         | 9,143,536               | 0.79   | 0.81      | 0.80   | Casablanca                         | Morocco               | 5,619,089               | 0.57      | 0.42      | 0.53   |
| New York   | USA                         | 23,514,804              | 0.78   | 0.80      | 0.79   | Kochi                              | India                 | 3,279,860               | 0.57      | 0.45      | 0.53   |
| Lisbon   | Portugal                    | 2,845,126               | 0.78   | 0.66      | 0.73   | Manila                             | Philippines           | 23,065,889              | 0.56      | 0.62      | 0.55   |
| Los Angeles  | USA                         | 17,950,451              | 0.77   | 0.78      | 0.78   | Tehran                             | Iran                  | 14,795,116              | 0.55      | 0.59      | 0.63   |
| Athens   | Greece                      | 4,123,518               | 0.77   | 0.77      | 0.75   | Surabaya                           | Indonesia             | 8,728,602               | 0.55      | 0.51      | 0.49   |
| Boston   | USA                         | 9,073,643               | 0.77   | 0.81      | 0.79   | Alexandria                         | Egypt                 | 9,433,514               | 0.55      | 0.50      | 0.55   |
| Miami  | USA                         | 7,432,017               | 0.76   | 0.79      | 0.77   | Cairo                              | Egypt                 | 24,243,250              | 0.54      | 0.50      | 0.54   |
| Santiago   | Chile                       | 6,921,403               | 0.76   | 0.68      | 0.66   | Mumbai                             | India                 | 26,167,972              | 0.54      | 0.44      | 0.56   |
| Chicago  | USA                         | 11,599,646              | 0.75   | 0.79      | 0.78   | Hyderabad                          | India                 | 9,306,634               | 0.54      | 0.42      | 0.56   |
| Dallas   | USA                         | 7,731,414               | 0.74   | 0.78      | 0.77   | Bangalore                          | India                 | 10,576,167              | 0.54      | 0.43      | 0.56   |
| Washington DC-Baltimore  | USA                         | 9,489,664               | 0.73   | 0.81      | 0.81   | Rabat                              | Morocco               | 2,648,773               | 0.53      | 0.43      | 0.53   |
| Atlanta  | USA                         | 7,506,267               | 0.73   | 0.79      | 0.78   | Pune                               | India                 | 9,426,959               | 0.52      | 0.43      | 0.54   |
| Philadelphia   | USA                         | 7,903,476               | 0.73   | 0.80      | 0.79   | Mashhad                            | Iran                  | 5,940,766               | 0.52      | 0.57      | 0.61   |
| Warsaw   | Poland                      | 2,472,713               | 0.73   | 0.72      | 0.74   | Ahmadabad                          | India                 | 8,595,678               | 0.51      | 0.43      | 0.56   |
| Budapest   | Hungary                     | 2,930,934               | 0.72   | 0.78      | 0.73   | Ludhiana                           | India                 | 3,487,882               | 0.51      | 0.43      | 0.58   |
| Bucharest  | Romania                     | 1,948,038               | 0.67   | 0.76      | 0.75   | Indore                             | India                 | 3,272,335               | 0.51      | 0.42      | 0.53   |
| Monterrey  | Mexico                      | 4,653,458               | 0.66   | 0.63      | 0.67   | Islamabad-Rawalpindi               | Pakistan              | 5,814,142               | 0.50      | 0.39      | 0.54   |
| Buenos Aires   | Argentina                   | 18,485,510              | 0.66   | 0.68      | 0.67   | Hubli-Dharwad                      | India                 | 1,846,993               | 0.50      | 0.41      | 0.48   |
| Belgrade   | Serbia                      | 2,253,185               | 0.65   | 0.68      | 0.62   | Santa Cruz                         | Bolivia               | 1,992,709               | 0.50      | 0.66      | 0.57   |
| Mexico City  | Mexico                      | 35,418,952              | 0.64   | 0.62      | 0.64   | Surat                              | India                 | 6,079,231               | 0.49      | 0.42      | 0.53   |
| Damascus   | Syrian Arab Republic        |                         | 0.64   | 0.43      | 0.54   | Dhaka                              | Bangladesh            | 18,105,000              | 0.49      | 0.37      | 0.40   |
| Guadalajara  | Mexico                      | 7,350,682               | 0.64   | 0.61      | 0.65   | Bhopal                             | India                 | 2,368,145               | 0.48      | 0.42      | 0.54   |
| Lima   | Peru                        | 10,054,952              | 0.63   | 0.70      | 0.63   | Khulna                             | Bangladesh            | 2,294,000               | 0.48      | 0.38      | 0.38   |
| Beijing  | China                       | 17,487,816              | 0.63   | 0.54      | 0.65   | Chittagong                         | Bangladesh            | 7,509,000               | 0.47      | 0.36      | 0.41   |
| Aleppo   | Syrian Arab Republic        |                         | 0.62   | 0.36      | 0.49   | Kolkata                            | India                 | 33,084,734              | 0.47      | 0.41      | 0.53   |
| Ho Chi Minh City   | Viet nam                    | 12,592,100              | 0.62   | 0.47      | 0.49   | Karachi                            | Pakistan              | 14,270,132              | 0.47      | 0.39      | 0.60   |
| Shanghai   | China                       | 19,553,651              | 0.62   | 0.53      | 0.67   | La Paz                             | Bolivia               | 1,908,813               | 0.47      | 0.66      | 0.52   |
| Shenyang-Fushun  | China                       | 9,587,314               | 0.62   | 0.54      | 0.63   | Lucknow                            | India                 | 4,588,455               | 0.45      | 0.41      | 0.51   |
| Dalian   | China                       | 6,296,304               | 0.61   | 0.53      | 0.66   | Lahore                             | Pakistan              | 13,335,777              | 0.45      | 0.37      | 0.55   |
| Wuhan  | China                       | 9,202,994               | 0.61   | 0.53      | 0.62   | Tashkent                           | Uzbekistan            | 4,789,500               | 0.45      | 0.63      | 0.49   |
| Caracas  | Venezuela                   | 5,431,709               | 0.61   | 0.53      | 0.63   | Delhi                              | India                 | 30,141,583              | 0.44      | 0.43      | 0.56   |
| Bogot‡   | Colombia                    | 9,840,818               | 0.61   | 0.61      | 0.62   | Yangon                             | Myanmar               | 7,122,722               | 0.42      | 0.39      | 0.45   |
| Nanjing  | China                       | 8,060,882               | 0.61   | 0.53      | 0.64   | Jaipur                             | India                 | 6,663,971               | 0.42      | 0.41      | 0.50   |
| Bangkok  | Thailand                    | 14,190,762              | 0.61   | 0.56      | 0.63   | Faisalabad                         | Pakistan              | 7,055,417               | 0.41      | 0.34      | 0.41   |
| XiŌan  | China                       | 8,611,430               | 0.61   | 0.54      | 0.57   | Phnom Penh                         | Cambodia              | 2,746,038               | 0.40      | 0.47      | 0.48   |
| Tianjin  | China                       | 12,142,489              | 0.61   | 0.53      | 0.64   | Cotonou                            | Benin                 | 1,523,836               | 0.37      | 0.40      | 0.40   |
| Saint Petersburg   | Russian Federation          | 6,137,260               | 0.61   | 0.66      | 0.67   | Dar es Salaam                      | Tanzania              | 4,149,873               | 0.36      | 0.33      | 0.41   |
| Kunming  | China                       | 6,435,490               | 0.61   | 0.53      | 0.57   | Abidjan                            | C™ te d <b>©</b> bire | 7,845,100               | 0.36      | 0.31      | 0.42   |
| Jinan  | China                       | 6,877,240               | 0.61   | 0.53      | 0.62   | Dakar                              | Senegal               | 4,514,693               | 0.35      | 0.39      | 0.44   |
| Chengdu  | China                       | 13,184,294              | 0.61   | 0.54      | 0.59   | Nairobi                            | Kenya                 | 7,806,748               | 0.34      | 0.51      | 0.44   |
| Kiev   | Ukraine                     | 4,506,900               | 0.61   | 0.77      | 0.60   | CapeTown                           | South Africa          | 5,223,900               | 0.31      | 0.61      | 0.61   |
| Hefei  | China                       | 5,130,599               | 0.61   | 0.53      | 0.60   | Kampala                            | Uganda                | 3,840,400               | 0.30      | 0.45      | 0.41   |
| Hanoi  | Viet nam                    | 9,633,100               | 0.60   | 0.47      | 0.50   | Johannesburg                       | South Africa          | 11,191,700              | 0.30      | 0.62      | 0.62   |
| Fortaleza  | Brazil                      | 3,950,596               | 0.60   | 0.56      | 0.55   | Barnako                            | Mali                  | 4,414,117               | 0.22      | 0.23      | 0.37   |
| Moscow   | Russian Federation          | 17,928,071              | 0.60   | 0.65      | 0.69   | Kinshasa                           | Congo, DRC            | 9,426,523               | 0.22      | 0.36      | 0.21   |
| Guiyang  | China                       | 4,035,935               | 0.60   | 0.53      | 0.55   | Abuja                              | Nigeria Nigeria       | 4,957,411               | 0.21      | 0.39      | 0.47   |
| Belo Horizonte   | Brazil                      | 5,453,312               | 0.60   | 0.58      | 0.63   | Lagos                              | Nigeria               | 15,373,213              | 0.20      | 0.44      | 0.46   |
|  | China                       | 40,437,810              | 0.60   | 0.54      | 0.67   | Harare                             | Zimbabwe              | 3,847,834               | 0.20      | 0.50      | 0.13   |
| South Guandona   | 3 (2)                       |                         | 0.60   | 0.54      | 0.57   | Ibadan                             | Nigeria               | 6,322,614               | 0.19      | 0.41      | 0.44   |
| South Guandong<br>Recife   | Brazil                      |                         |        |           |        |                                    |                       | Almento 14              | 100000000 | B-10-     | 100    |
| Recife   | Brazil                      | 4,054,966               |        |           |        |                                    | Zambia                | 2467467                 | 0.18      | 0.41      | 0.40   |
| The state of the s | Brazil<br>China<br>Colombia | 10,350,973<br>6,065,846 | 0.60   | 0.54      | 0.58   | Lusaka<br>Kano                     | Zambia<br>Nigeria     | 2,467,467<br>10,643,633 | 0.18      | 0.41      | 0.40   |

| Extended Metropolitan Region Nation (EMR) | EMR<br>pop. 2010        | Health | Education    | Wealth       | Extended Metropolitan Region<br>(EMR) | Nation              | EMR<br>pop. 2010       | Health Education<br>Index index | n Wealth<br>Index            |
|---|-------------------------|--------|--------------|--------------|---------------------------------------|---------------------|------------------------|---------------------------------|------------------------------|
| Extended Metropolitan Region<br>(EMR)     | n Nar                   | tion   |              |              | EMR<br>pop. 2010                      | Health<br>index     | Education index        | Wealth<br>index                 | 0.65<br>0.60<br>0.66<br>0.49 |
| Hong Kong                                 | Ho                      | ng K   | ong          |              | 7,069,378                             | 0.88                | 0.66                   | 0.77                            | 0.60                         |
| Osaka                                     | Ja                      | pan    |              |              | 18,488,755                            | 18,488,755 0.86     |                        | 0.73                            | 0.60                         |
| Tokyo                                     | Ja                      | pan    |              |              | 42,607,376                            | 0.76                | 0.74                   | 0.66                            |                              |
| Singapore                                 | Sir                     | ngap   | ore          |              | 4,836,691                             | 0.86                | 0.64                   | 0.78                            | 0.51                         |
| Stockholm                                 | Sv                      | vede   | n            |              | 1,990,493                             | 0.85                | 0.76                   | 0.78                            | 0.55<br>0.53                 |
| Rome                                      | Ita                     | ly     |              |              | 4,101,228                             | 0.83                | 0.73                   | 0.74                            | 0.53                         |
| Madrid                                    | Sp                      | ain    |              |              | 6,418,863                             | 6,418,863 0.82 0.75 |                        |                                 | 0.63                         |
| Paris                                     | Fra                     | ance   |              |              | 12,177,135                            | 0.82                | 0.73                   | 0.78                            | 0.49<br>0.55                 |
| Berlin                                    | Germ                    |        |              |              | 4,945,877                             | 0.81                | 0.79                   | 0.71                            | 0.54<br>0.56                 |
| Sydney                                    | Au                      | ıstral | ia           |              | 7,253,400                             | 0.81                | 0.89                   | 0.75                            | 0.56<br>0.56                 |
| Randstad                                  | Ne                      | therl  | ands         | ;            | 6,969,690                             | 0.80                | 0.77                   | 0.77                            | 0.53<br>0.54                 |
| London                                    | Un                      | nited  | King         | dom          | 14,830,051                            | 0.79                | 0.71                   | 0.77                            | 0.61<br>0.56                 |
| Toronto                                   | nada                    | 1      |              | 6,456,145    | 0.79                                  | 0.79                | 0.76                   | 0.58<br>0.53                    |                              |
| San Francisco-San Jose                    | US                      | SA     |              |              | 9,143,536                             | 0.79                | 0.81                   | 0.80                            | 0.54                         |
| New York                                  | US                      | SA     |              |              | 23,514,804                            | 0.78                | 0.80                   | 0.79                            | 0.57<br>0.53                 |
| Lisbon                                    | Po                      | rtuga  | al           |              | 2,845,126                             | 0.78                | 0.66                   | 0.73                            | 0.40<br>0.54                 |
| Los Angeles                               | US                      | SA     |              |              | 17,950,451                            | 0.77                | 0.78                   | 0.78                            | 0.38<br>0.41                 |
| Athens                                    | Gr                      | eece   |              |              | 4,123,518                             | 0.77                | 0.77                   | 0.75                            | 0.53                         |
| Boston                                    | US                      | SA     |              |              | 9,073,643                             | 0.77                | 0.81                   | 0.79                            | 0.52                         |
| Miami                                     | US                      | SA     |              |              | 7,432,017                             | 0.76                | 0.79                   | 0.77                            | 0.51                         |
| Santiago                                  | Ch                      | ile    |              |              | 6,921,403                             | 0.76                | 0.68                   | 0.66                            | 0.49                         |
| Chicago                                   | US                      | SA     |              |              | 11,599,646                            | 0.75                | 0.79                   | 0.78                            | 0.45<br>0.50                 |
| Dallas                                    | US                      | SA     |              |              | 7,731,414                             | 0.74                | 0.78                   | 0.77                            | 0.41                         |
| Washington DC-Baltimore                   |                         |        | 9,489,664    | 0.73         | 0.81                                  | 0.81                | 0.40                   |                                 |                              |
| Atlanta                                   | USA                     |        |              |              | 7,506,267                             | 0.73                | 0.79                   | 0.78                            | 0.42                         |
| Philadelphia                              | US                      | SA     |              |              | 7,903,476                             | 0.73                | 0.80                   | 0.79                            | 0.44                         |
| Warsaw                                    | Po                      | land   |              |              | 2,472,713                             | 0.73                | 0.72                   | 0.74                            | 0.41                         |
| Budapest                                  | Hu                      | ıngar  | у            |              | 2,930,934                             | 0.72                | 0.78                   | 0.73                            | 0.37                         |
| Bucharest                                 | Ro                      | man    | ia           |              | 1,948,038                             | 0.67                | 0.76                   | 0.75                            | 0.47                         |
| South Guandong China                      | 40,437,810              | 0.60   | 0.54         | 0.67         | Harare                                | Zimbabwe            | 3,847,834              | 0.20 0.50<br>0.19 0.41          | 0.13                         |
| Recife Brazil Harbin China                | 4,054,966<br>10,350,973 | 0.60   | 0.56         | 0.57<br>0.58 | Ibadan<br>Lusaka                      | Nigeria<br>Zambia   | 6,322,614<br>2,467,467 | 0.18 0.41                       | 0.44                         |
| Medellin Colombia Brasilia Brazil         | 6,065,846<br>4,164,421  | 0.60   | 0.56<br>0.58 | 0.59         | Kano                                  | Nigeria             | 10,643,633             | 0.17 0.33                       | 0.38                         |

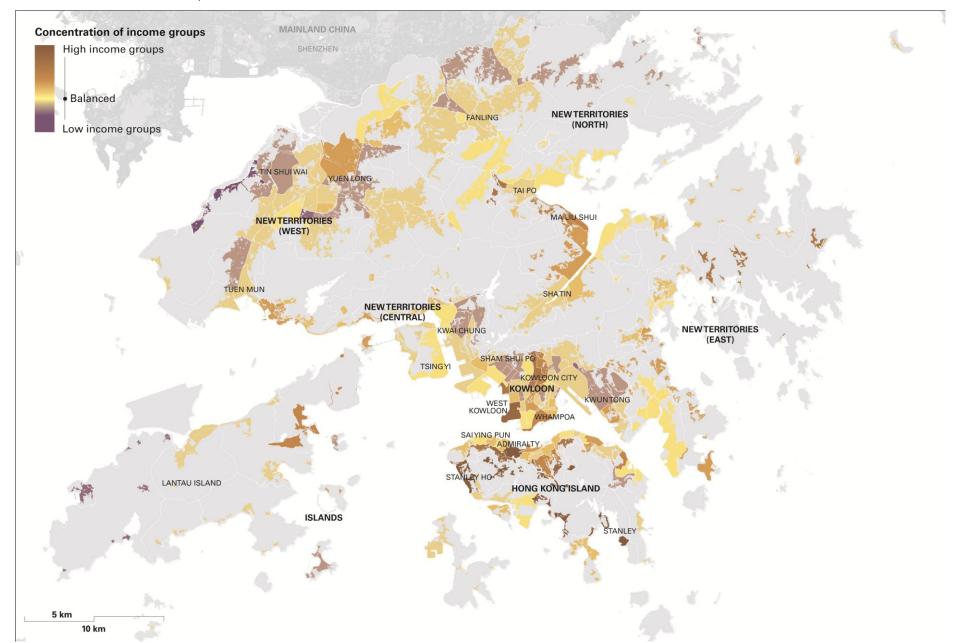
#### **HEALTH IN CITIES VS. COUNTRIES**



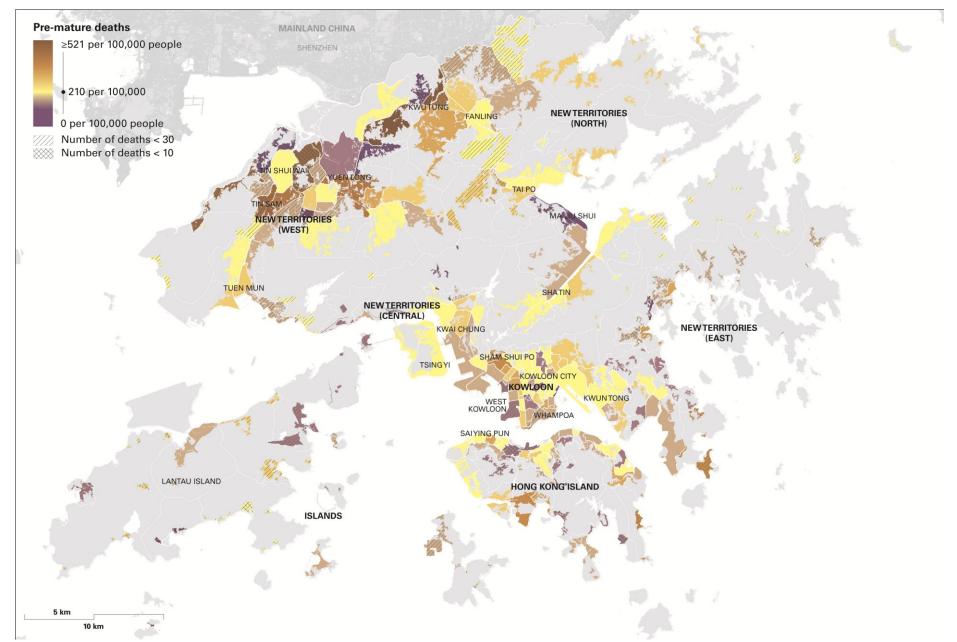
# **HONG KONG**



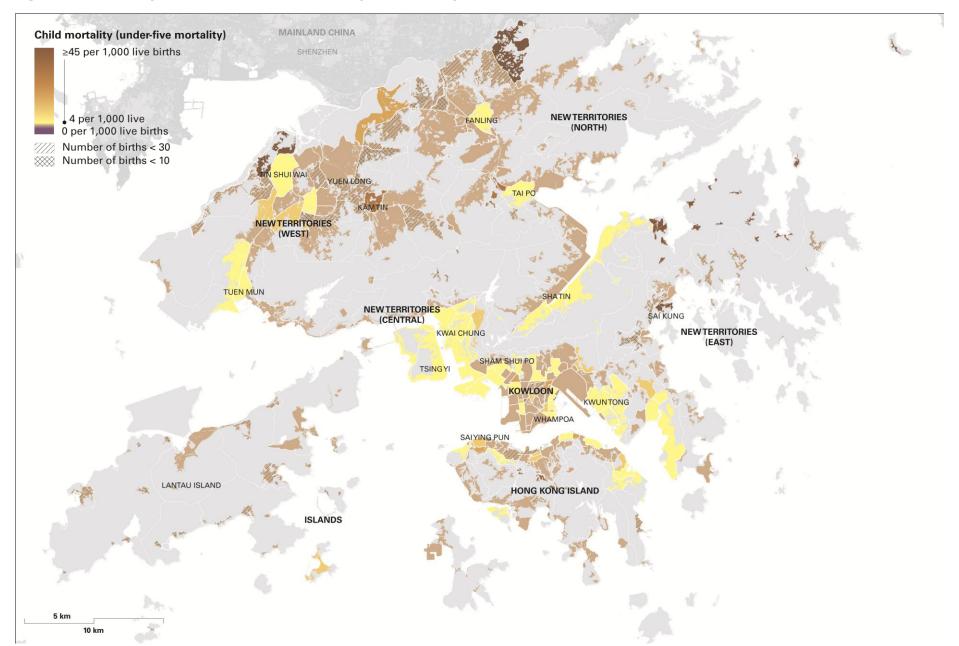
# **SOCIAL INEQUALITIES IN HONG KONG**



# PREMATURE MORTALITY IN HONG KONG (BEFORE 75 YEARS)

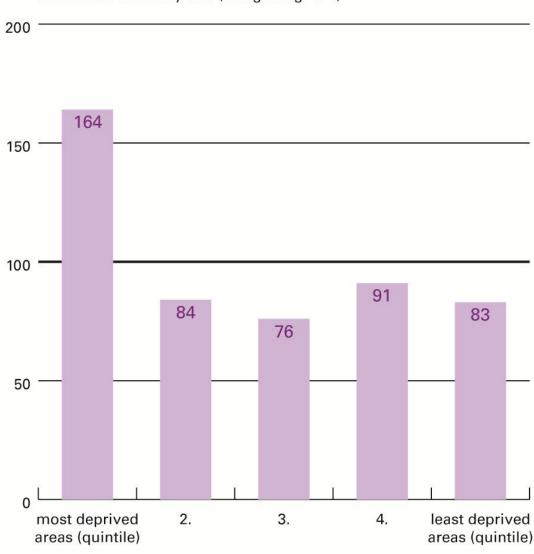


# **CHILD MORTALITY IN HONG KONG**



#### **CHILD MORTALITY AND DEPRIVATION IN HONG KONG**

index child mortality rate (Hong Kong=100)







## **URBAN DENSITY**

**NEW YORK** 

LONDON

HONG KONG 111,100 pp/km<sup>2</sup> 58,500 pp/km<sup>2</sup> 17,300 pp/km<sup>2</sup> peak density

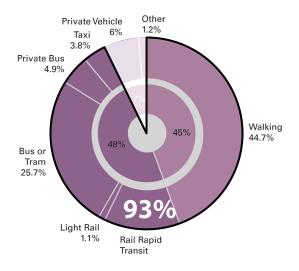


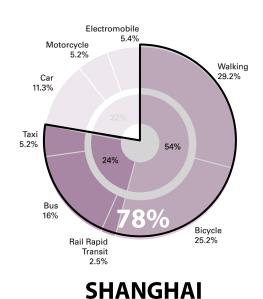
## **HONG KONG MTR NETWORK**

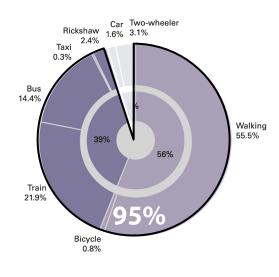


"I think we have the best transport here. I moved into the area here just because of this." "Although Hong Kong is dense, it is still convenient. We don't have to spend a long time travelling to the destination. Amenitywise ... it is good enough."

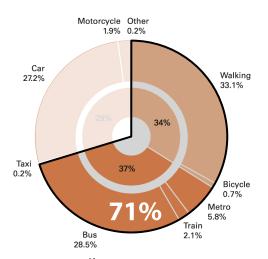
#### **MODAL SPLITS**







#### **HONG KONG**



Minibus / Dolmus / Taxi 9.3%

Company / School Buses 11.5%

Bus 14.8%

Rail

Car

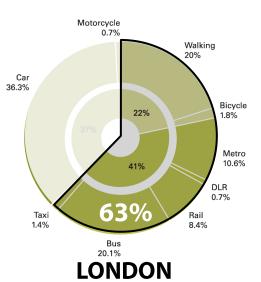
13.7%

Sea 1.6%

ISTANBUL

3.8%

**MUMBAI** 



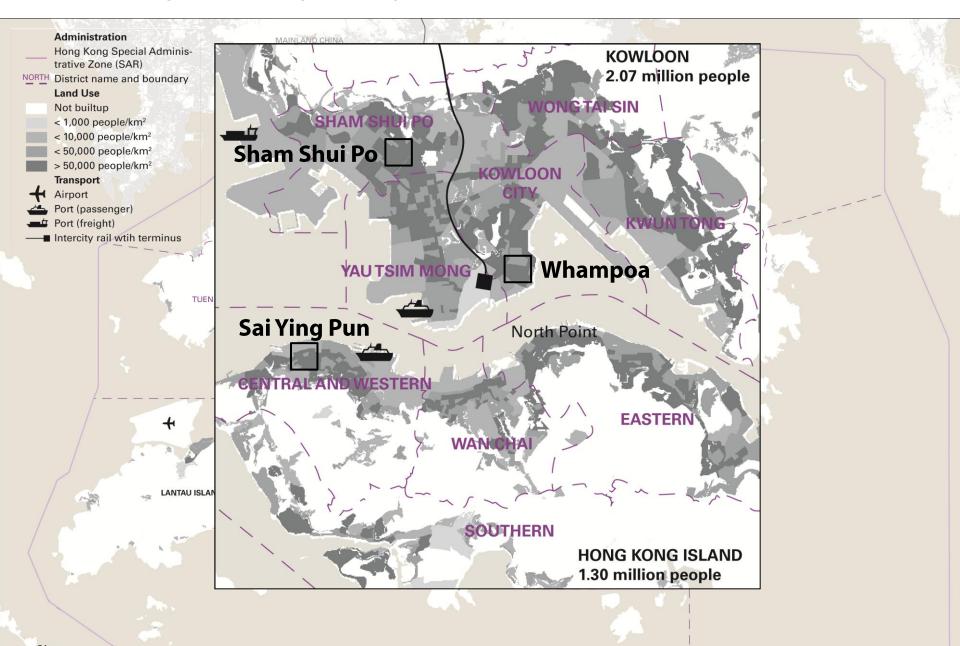
**SÃO PAULO** 

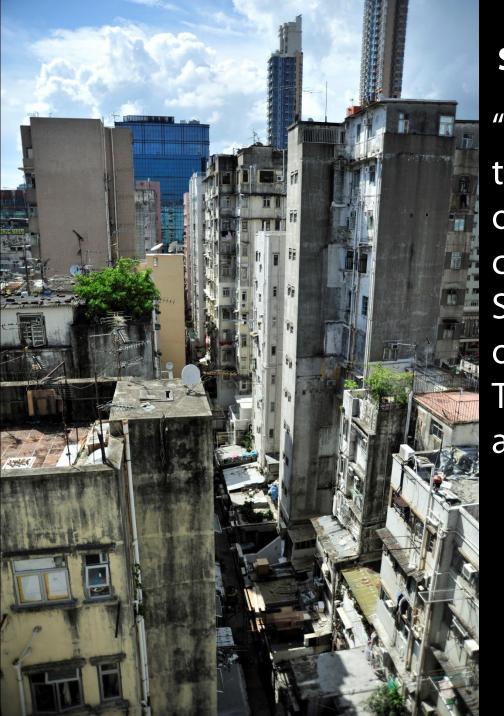




# "Time matters in Hong Kong."

## **HIGH DENSITY IN HONG KONG**





## **SHAM SHUI PO**

"If the neighbouring flat has their air conditioner turned on, the hot air from their air conditioner would affect you. So everyone now has to turn on their air conditioners ... The air quality is not so good and I always cough."

Ms Kwong, 61 Sham Shui Po, Kowloon





# **SAI YING PUN**

"You can touch the flat next to yours if you reached out your hands."

> Mr Ng, 58, retired Sai Ying Pun, Hong Kong Island

# **KOWLOON, HONG KONG**



"I wasn't experienced and I was so happy that I invited my colleagues to my home. The gross floor area was merely 300 feet, it was so cramped that ... everyone sat in rows as if they were at the cinema ... they said I had overestimated myself ... since then I've never invited anyone to my home."



"The success of a city cannot be measured only by its financial prowess; the mental health and the well-being of its residents must also be considered."

# CITIES HEALTH AND WELL-BEING - URBAN AGE HONG KONG CONCLUSIONS

- breaking point of high-density vs liveability
- impact on quality of life and well-being
- negative effect of regeneration policies
- reconsider planning and governance strategies
- understand the role of design and public space in making healthy cities

