

# Urban environment and health

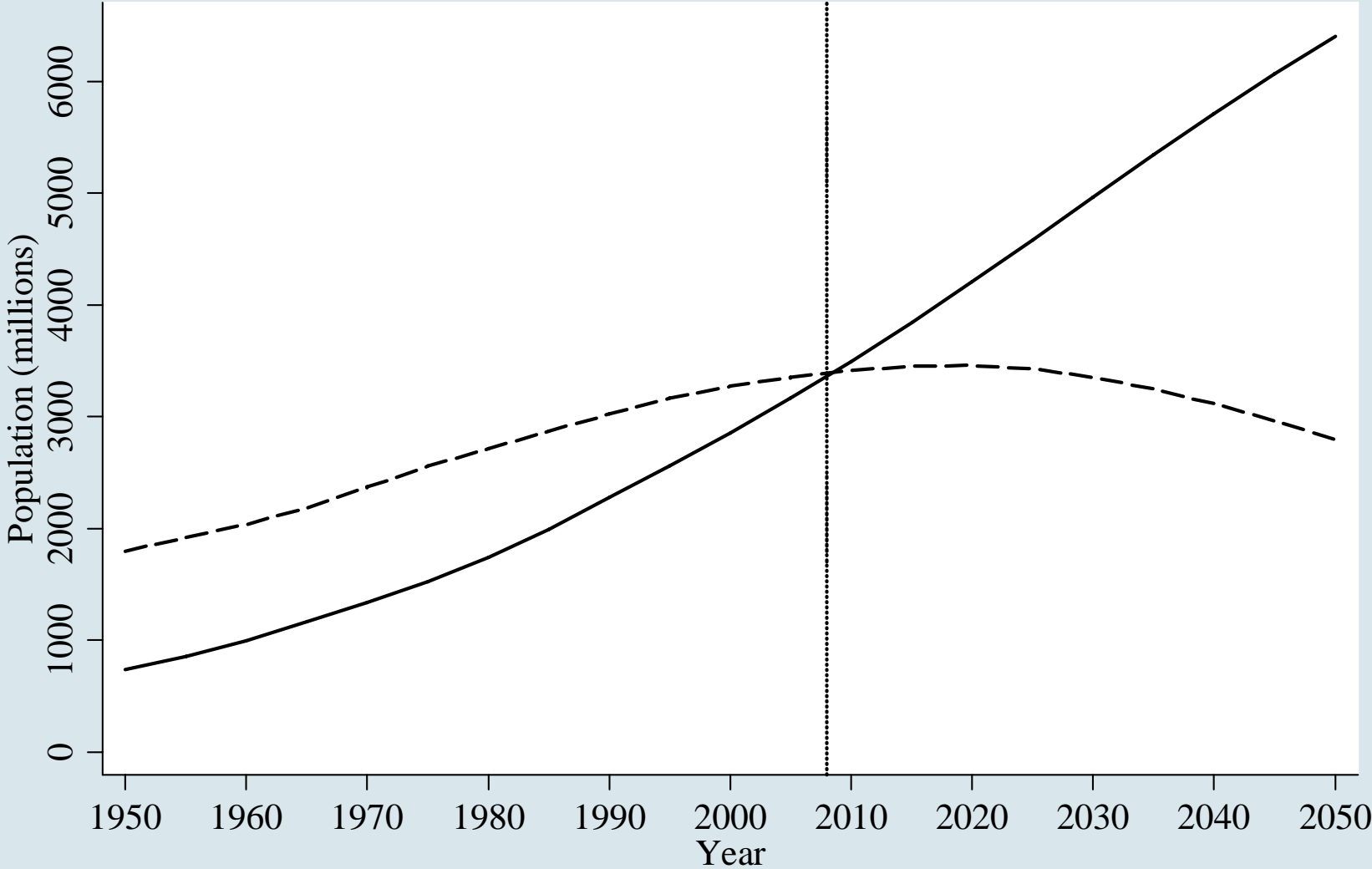


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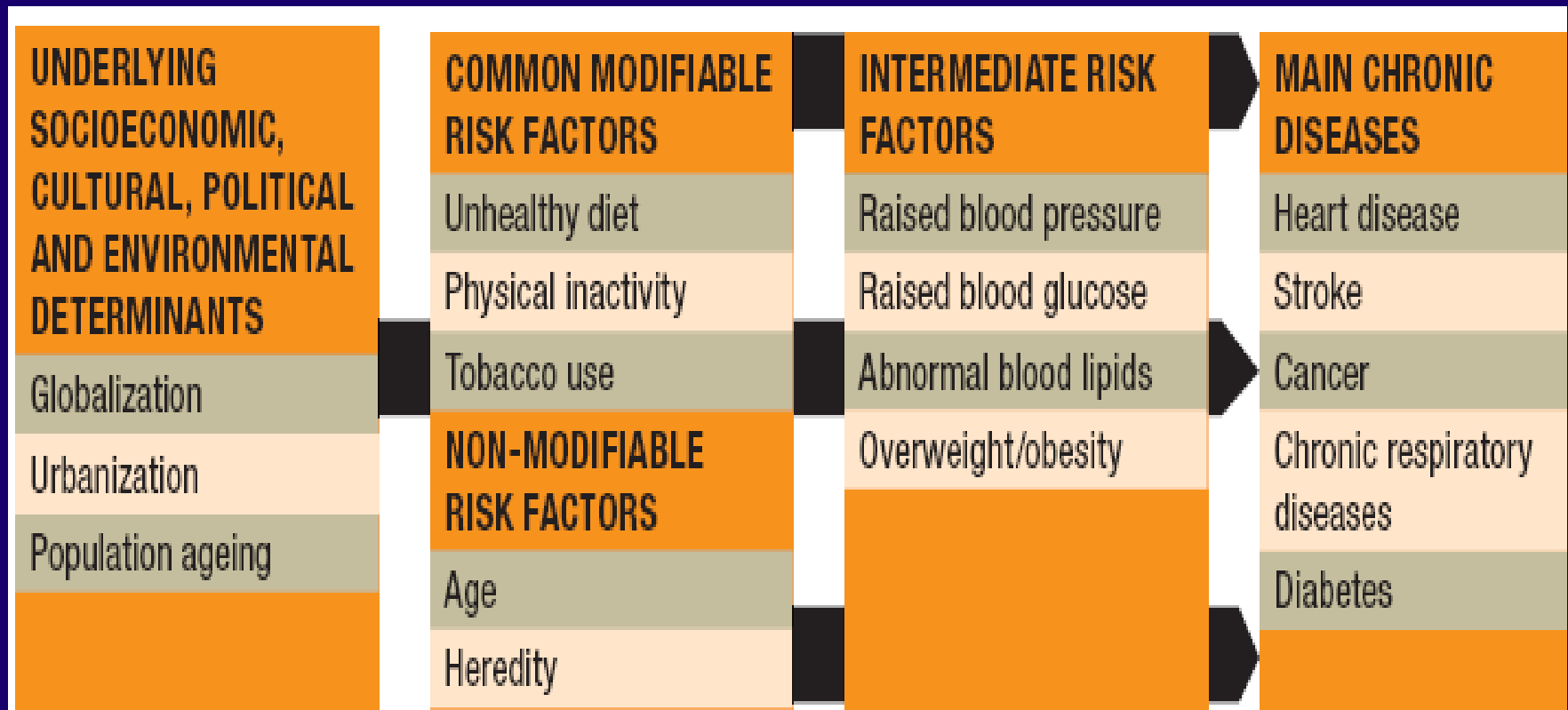


# Urban and rural populations of the world, 1950-2050



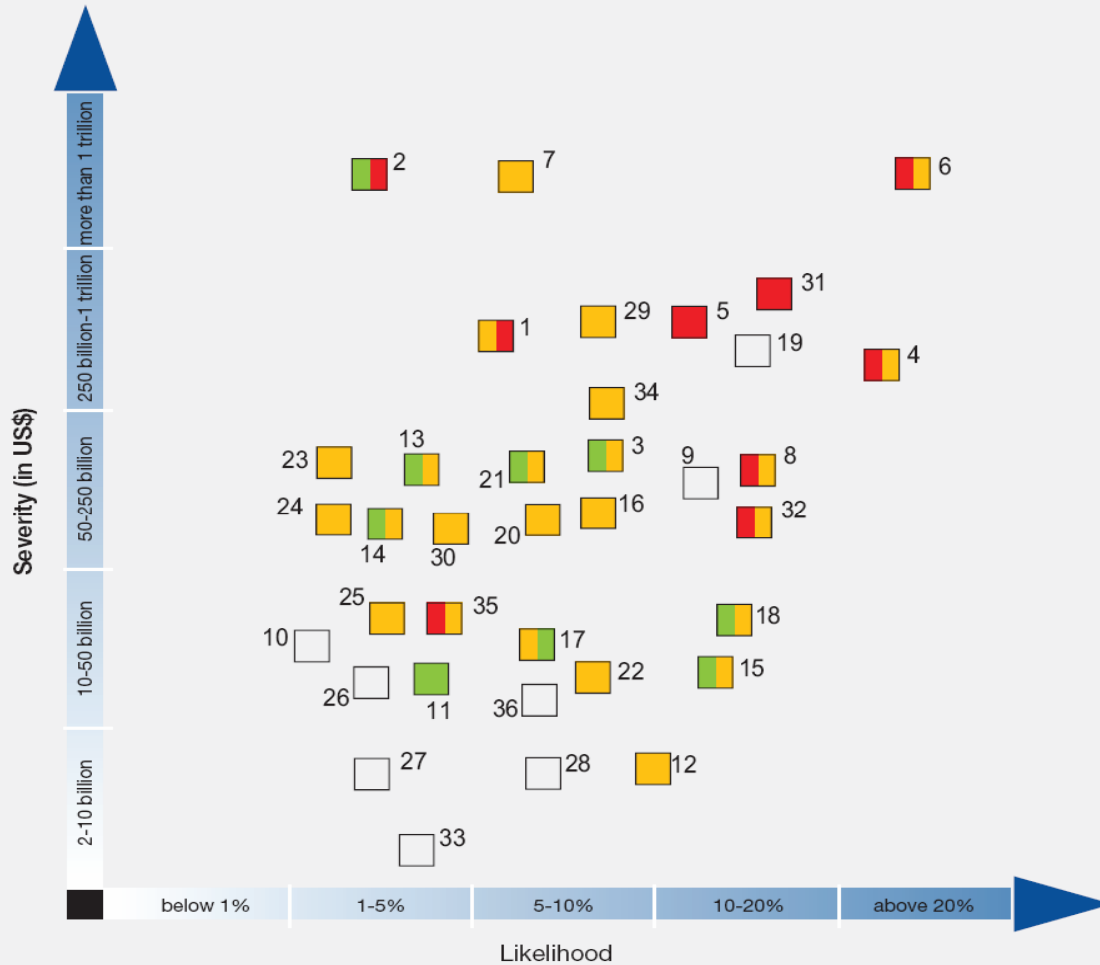
— Urban Population    - - - - Rural Population

# Causes of chronic disease (WHO)



# Lessons from ongoing successes

Figure 1: Global Risks Landscape 2009: Likelihood with Severity by Economic Loss



Source: World Economic Forum 2009

## ECONOMIC

- 1 Food price volatility
- 2 Oil and gas price spike
- 3 Major fall in US\$
- 4 Slowing Chinese economy (6%)
- 5 Fiscal crises
- 6 Asset price collapse
- 7 Retrenchment from globalization (developed)
- 8 Retrenchment from globalization (emerging)
- 9 Regulation cost
- 10 Underinvestment in infrastructure

## GEOPOLITICAL

- 11 International terrorism
- 12 Collapse of NPT
- 13 US/Iran conflict
- 14 US/DPRK conflict
- 15 Afghanistan instability
- 16 Transnational crime and corruption
- 17 Israel-Palestine conflict
- 18 Violence in Iraq
- 19 Global governance gaps

## ENVIRONMENTAL

- 20 Extreme climate change related weather
- 21 Droughts and desertification
- 22 Loss of freshwater
- 23 NatCat: Cyclone
- 24 NatCat: Earthquake
- 25 NatCat: Inland flooding
- 26 NatCat: Coastal flooding
- 27 Air pollution
- 28 Biodiversity loss

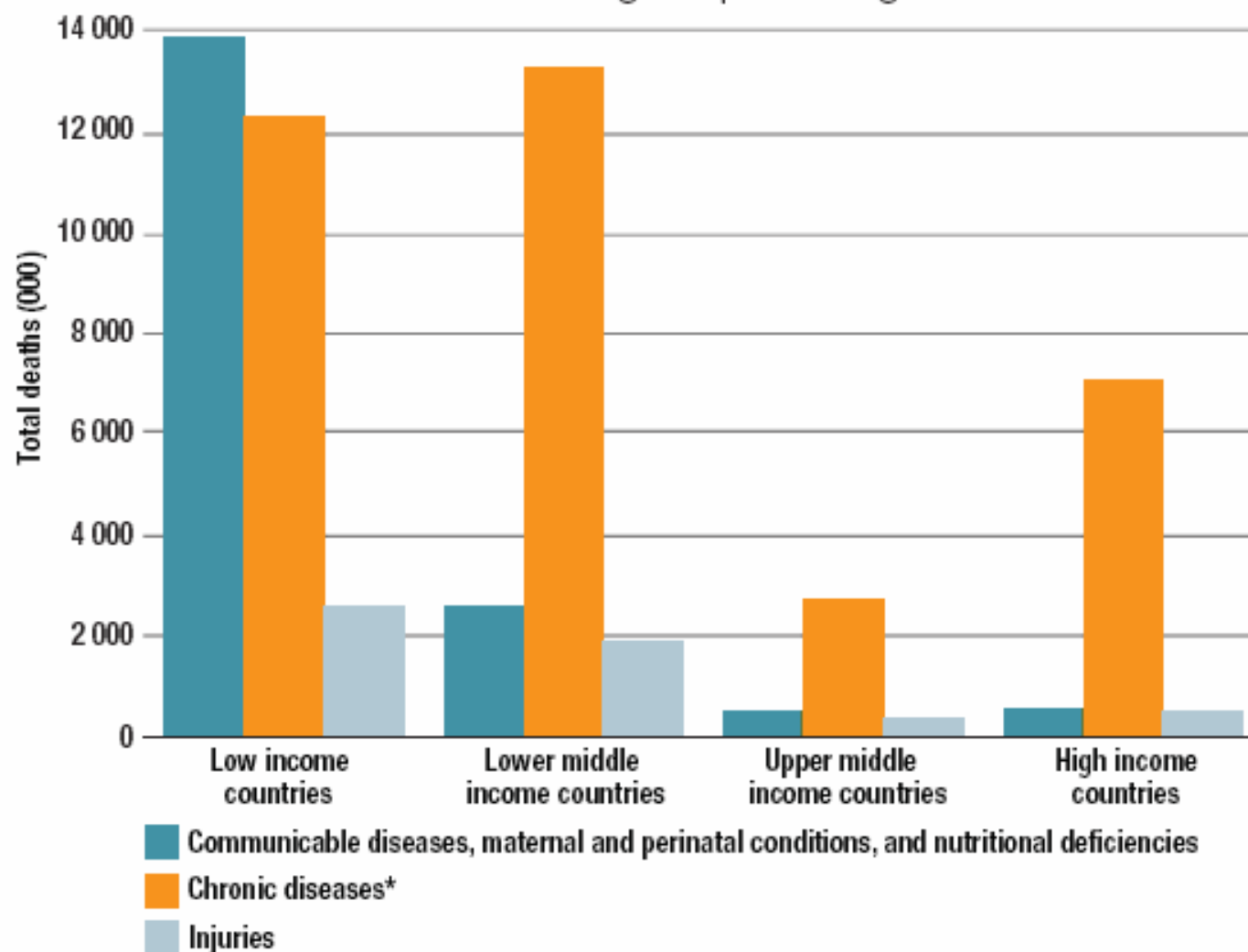
## SOCIETAL

- 29 Pandemic
- 30 Infectious disease
- 31 Chronic disease
- 32 Liability regimes
- 33 Migration

## TECHNOLOGICAL

- 34 CII breakdown
- 35 Emergence of nanotechnology risks
- 36 Data fraud/loss

## Projected deaths by major cause and World Bank income group, all ages, 2005



\* Chronic diseases include cardiovascular diseases, cancers, chronic respiratory disorders, diabetes, neuropsychiatric and sense organ disorders, musculoskeletal and oral disorders, digestive diseases, genito-urinary diseases, congenital abnormalities and skin diseases.

# Sri Lanka

# India

## SRI LANKA

7/9 provinces

Excludes Northern & Eastern

5,000 (RR>99%)



## INDIA

Tamil Nadu

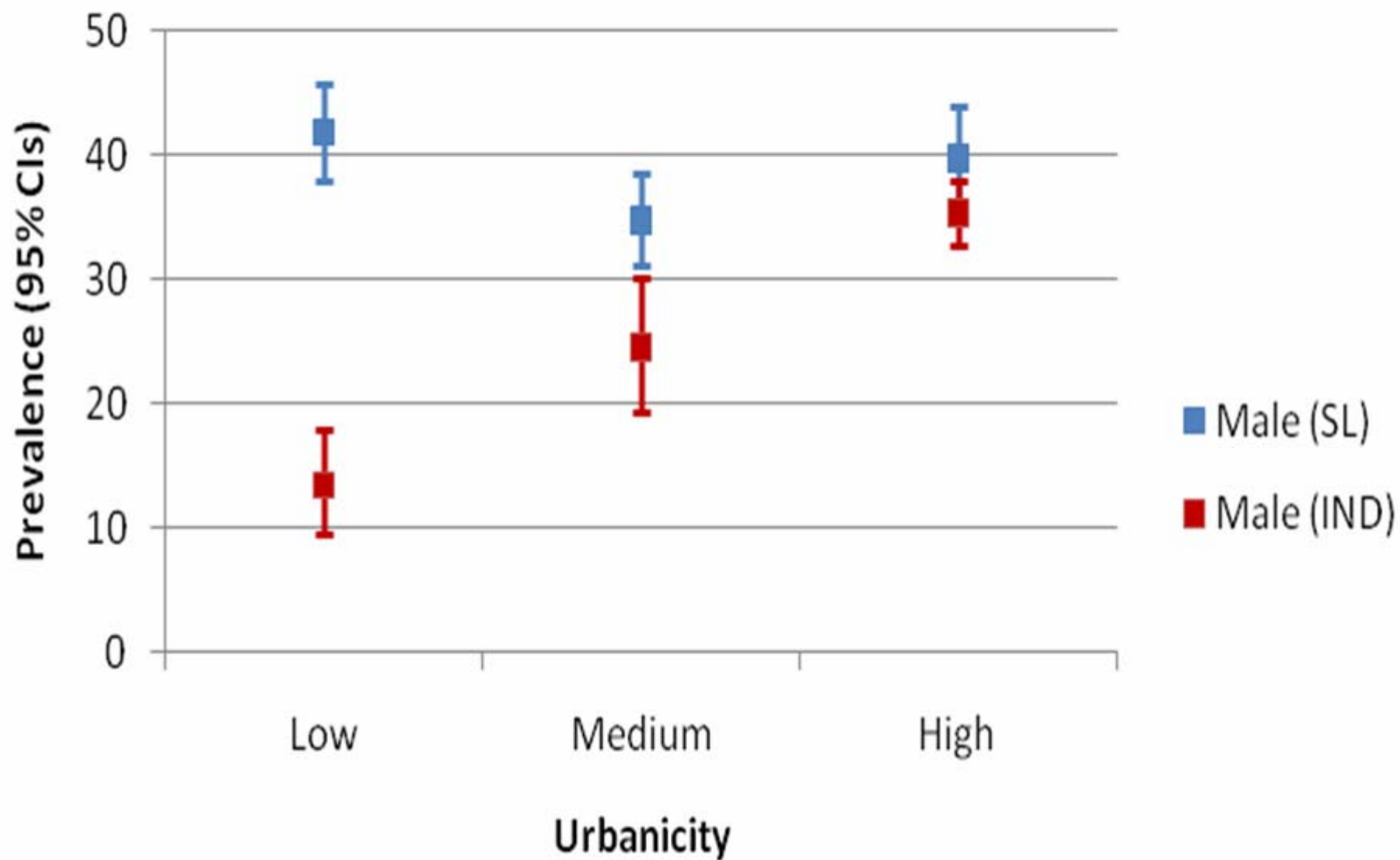
Six rural villages

One urban town

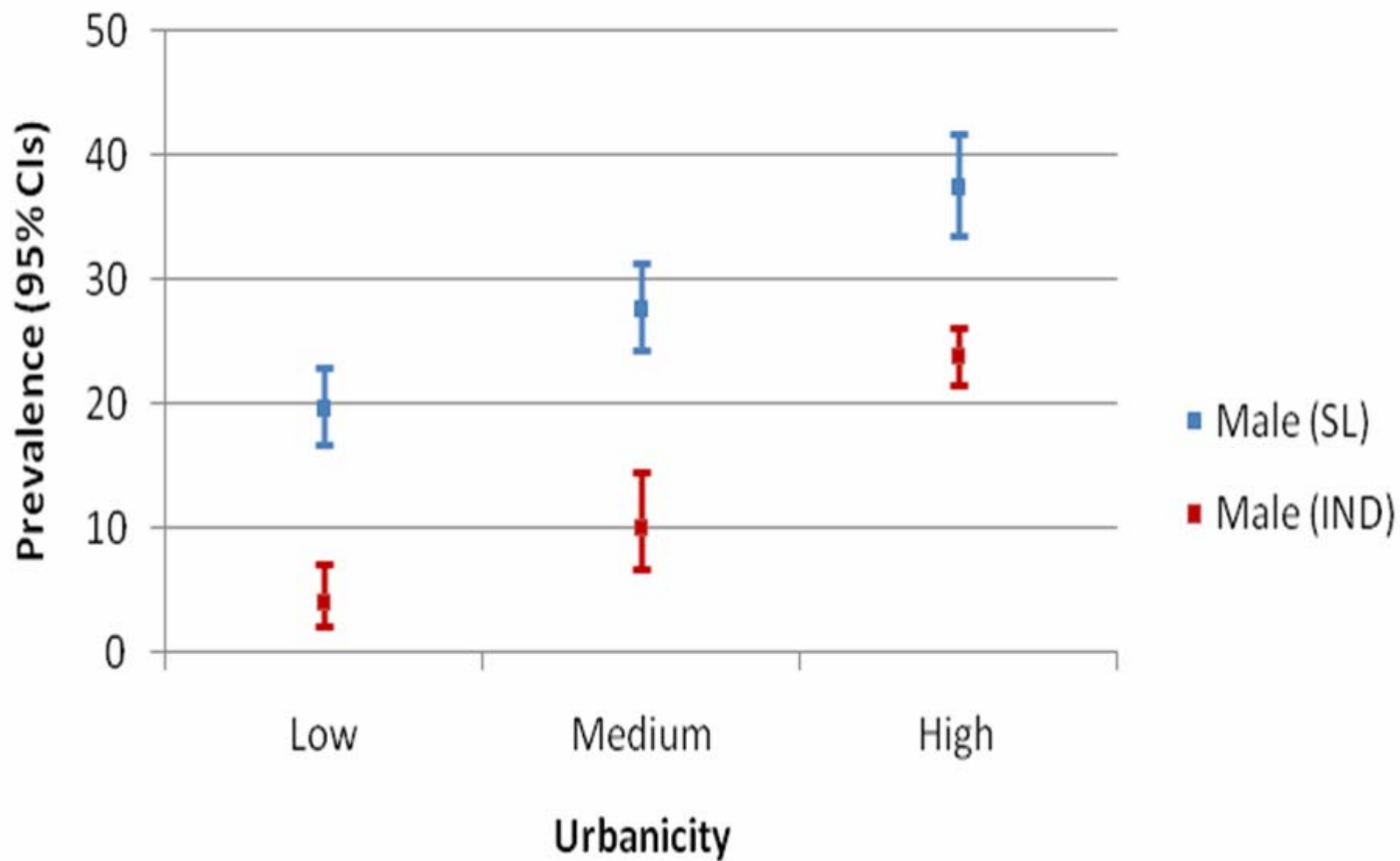
3,705 participants (97% RR)



# Daily smoking - males

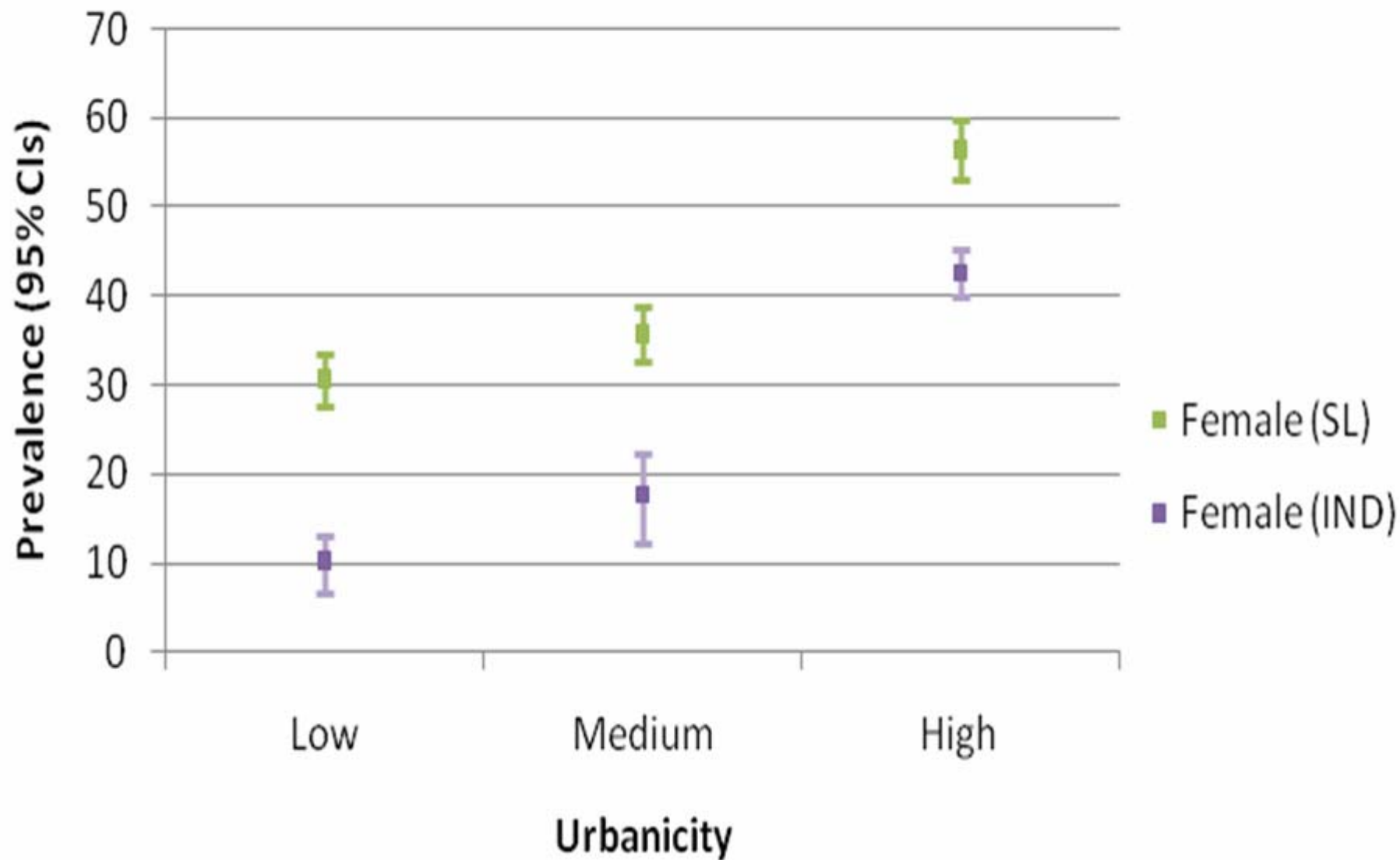


# High BMI - males





# High BMI - females



# Results summary – urbanicity scale is associated with

## Males

- drinking
  - BMI > 23 Kgm<sup>-2</sup>
  - diabetes mellitus
  - physical inactivity
- 
- smoking
  - hypertension
  - ECG changes

## Females

- drinking
- BMI > 23 Kgm<sup>-2</sup>
- diabetes mellitus
- physical inactivity

# Regulation potentials, gaps, and opportunities

Targeted – specific elements of the urbanising environment

## **Physical activity**

The built environment

Land use and zoning

Safety and aesthetic value

## **Nutrition**

Cost and availability

Arable land

Food labelling

Food marketing

## **Smoking**

Taxation

Social marketing

Generic

Clean affordable housing

Access to primary health care

Communicable disease control

Safe roads

Better education and assistance for women

Climate change

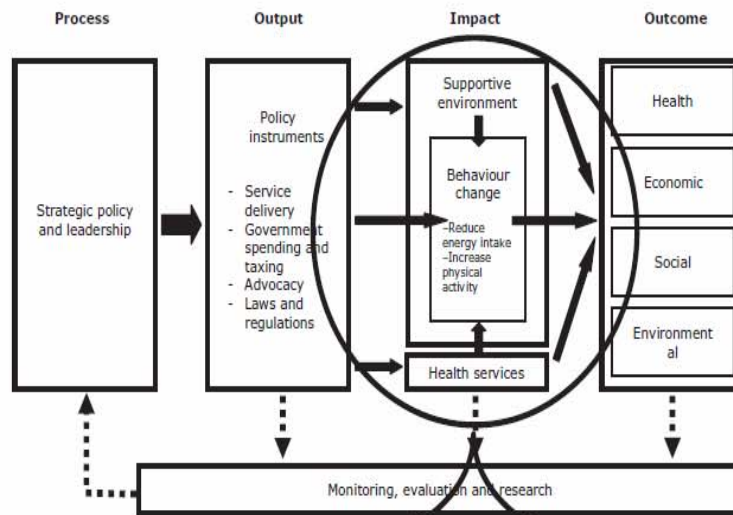
# Critical policy needs and challenges at the city/region/country/global levels

Collaboration between diverse experiences and approaches

Application of methods and tools in developing country settings

Maintain the positive elements of development process

Evaluate possible policy approaches



**Socio-ecological (upstream) approach**

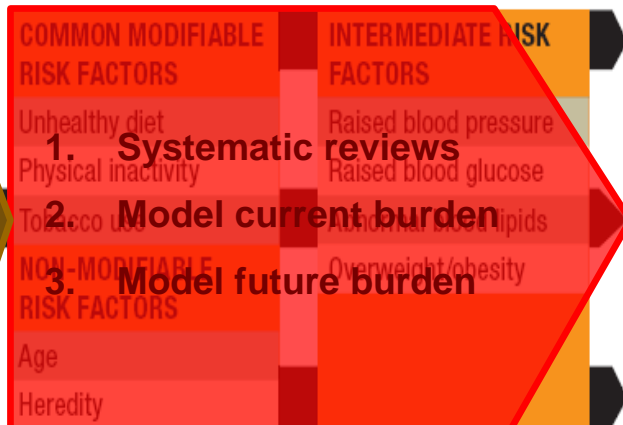
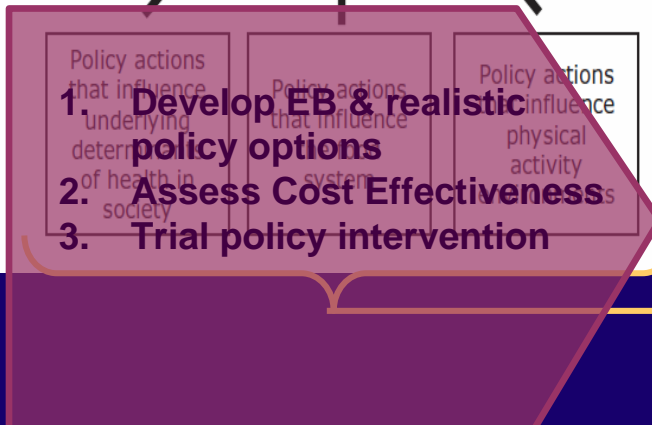
**Lifestyle (midstream) approach**

**Health services (downstream) approach**

Policy actions that shape the economic, social and physical (built and natural) environments

Policy actions that directly influence behaviour (reducing energy intake and increasing physical activity)

Policy actions that support health services and clinical interventions



MAIN CHRONIC DISEASES
Heart disease
Stroke
Cancer
Chronic respiratory diseases
Diabetes

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