

# The Impacts of Climate Change on Human Health in Cities

How are cities mitigating health  
impacts of climate change through  
planning and policy?

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# Research Project

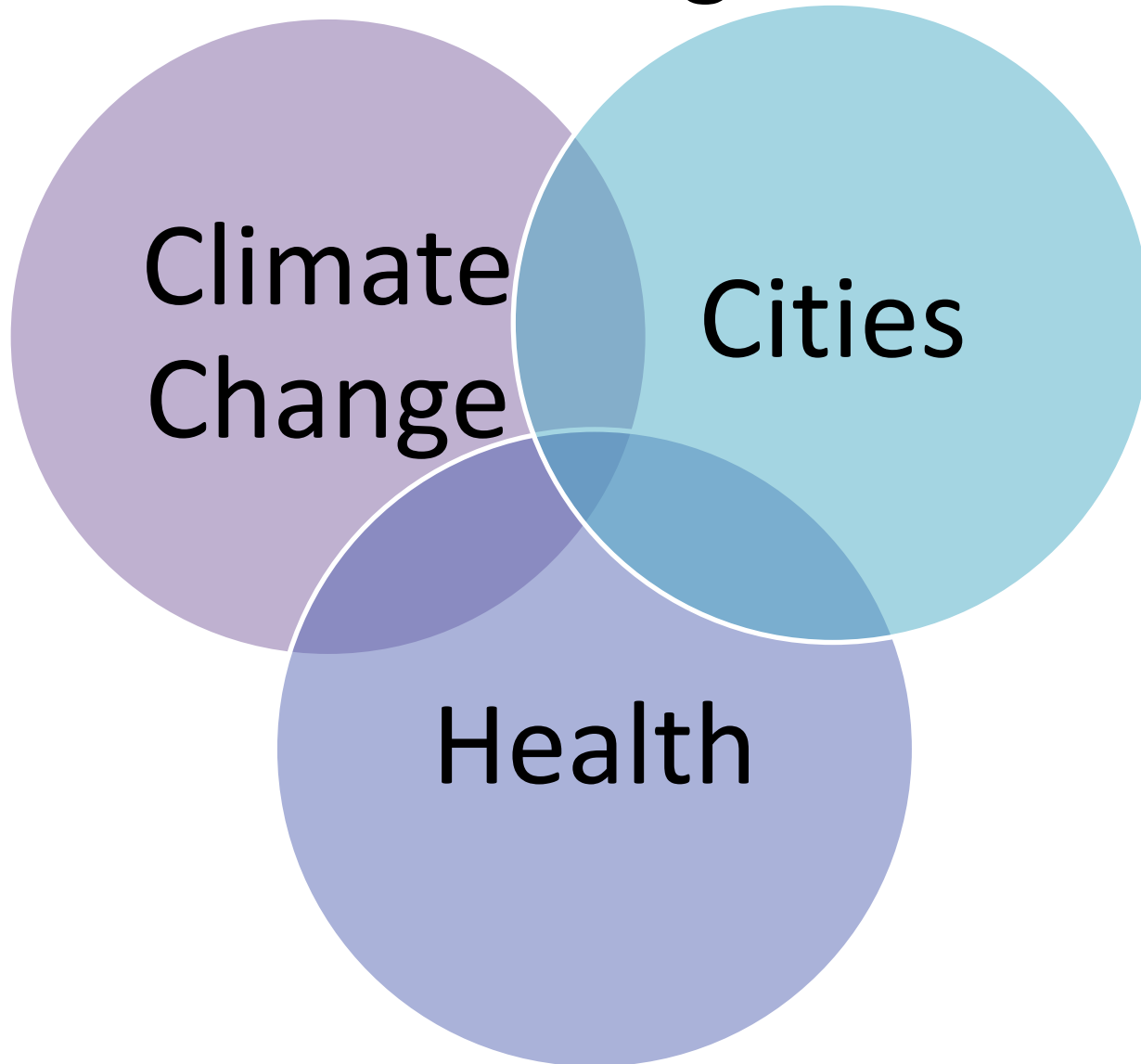
- **Question**

How are cities responding to threats on human health presented by climate change and is a focus on health vulnerability a viable solution for addressing climate change in cities?

- **Objectives**

1. Evaluate how urban policy-makers are tackling climate change adaptation and urban resilience issues;
2. Assess urban policy responses to health issues stemming from climate change in terms of effectiveness for mitigating vulnerability and increasing resilience.
3. Identify the gaps in policy responses to climate change and health.

# Venn Diagram



Climate  
Change

Cities

Health

# Methodology

- **Literature Review:**
  - Climate Change & Cities
  - Climate Change & Public Health
  - Cities and Health:
- **Content Analysis**
  - 30 City Plans Internationally
- **Case Studies**
  - Selected from content analysis
  - 2-4 Cities

# Literature Review

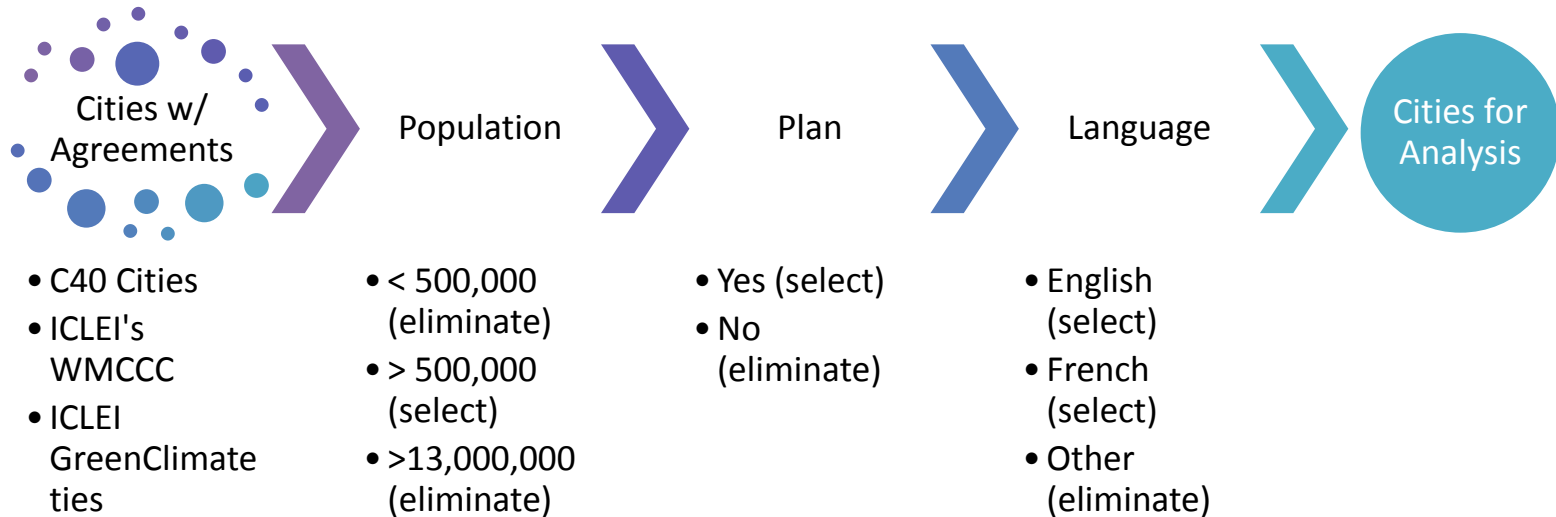
- Why Cities?
  - Cities serve as a secure place for people to live (Mumford, 1961). People have developed cities to meet their basic needs of accessing shelter, food, and water.
  - Cities were centers of political power, with political leaders making decisions that shaped the city (Mumford, 1961).
  - Betsill and Bulkeley (2007) highlighted the capacity of cities to address climate change, beyond GHGs

# Literature Review

- Why Health?
  - WHO: Healthy Cities movement in the mid 80s, and again now.
  - Direct impacts a visible impact on human health:
    - extreme weather events - injury and mortality
  - Indirect impacts the not so obvious impacts:
    - Rising temp. and air quality - communicable and non communicable diseases

# Content Analysis

- Selection Process for cities:



- Results 54 cities.

- Review each plan for Climate Change & Health Policies

# Content Analysis

<u>City</u>	<u>Country</u>	<u>Population</u>
Istanbul	Turkey	13300000
Tokyo	Japan	13180000
Sao Paulo,	Brazil	11400000
Seoul	Republic of Korea	10600000
New York	United States	8400000
London	United Kingdom	7800000
Hong Kong	China	7060000
Singapore	Singapore	5300000
Sydney	Australia	4667283
Dar Es Salaam	Tanzania	4364541
Melbourne	Australia	4246345
Los Angeles	United States	4100000
Johannesburg	South Africa	3900000
Cape Town	South Africa	3740026
EThekwni Municipality (Durban)	South Africa	3442361
City of Tshwane	South Africa	2921488
Chicago	United States	2830000
Kaohsiung	Chinese Taipei	2769072
Taipei	China	2652959
Toronto	Canada	2620000
Paris	France	2260000
Brisbane	Australia	2189878
Houston	United States	2100000
Perth	Australia	1897548
Bursa	Turkey	1704441
Kampala	Uganda	1659600
Montreal	Canada	1649519

<u>City</u>	<u>Country</u>	<u>Population</u>
Philadelphia	United States	1500000
Kyoto	Japan	1473746
Auckland	New Zealand	1397300
Adelaide	Australia	1227174
Bruxelles-Capitale Region	Belgium	1138854
Changwon	Republic of Korea	1100000
Calgary	Canada	1096833
Lille	France	1015744
Jerusalem	Israel	890428
Stockholm	Sweden	860000
Bordeaux	France	832605
San Francisco	United States	820000
Austin	United States	800000
Zagreb	Croatia	790017
Seattle	United States	630000
Oslo	Norway	629313
Washington, DC	United States	620000
Vancouver	Canada	600000
Glasgow	United Kingdom	598830
Portland	United States	560000
Copenhagen	Denmark	559440
Albuquerque	United States	555417
Arusha	Tanzania	534102
Göteborg	Sweden	529343
Dublin	Ireland	525383
Brampton	Canada	523911
Kitwe	Zambia	504194



# Questions/Comments

- Thank-you!