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# A Framework for the Study of Urban Health

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# Course Objectives

- Understand key issues associated with rapid growth of urban population in developing countries with a focus on the poor
- Explore and critically analyze some of these issues, including urban demography, epidemiology, and environmental changes and their implications for urban public health

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- Understand key issues associated with rapid growth of urban population in developing countries with a focus on the poor
- Explore and critically analyze some of these issues, including urban demography, epidemiology, and environmental changes and their implications for urban public health
- Review successful case studies and initiatives by governments, NGOs, and development partners to learn about methods to deal with the complex issues of developing country urban health
- To critically analyze the successes and weaknesses of each case study, the lessons learned from them, and discuss how to use case studies in other situations

# Structure of the Course

- Module 1: Urbanization Trends and Urban Environment
- Module 2: Selected Urban Health Issues, e.g.,
  - Transport and health
  - Urban and infectious diseases
  - Urban primary health care and health systems
- Module 3: Case Studies

# Lecture 1: Session Outline

- Definition of urban
- Urbanization trends
- Current approaches to urban health research
- A framework for the study of urban health



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## Section A

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Urbanization Trends and Current Approaches to the Study  
of Urban Health

# How Do We Define “Urban”?

- Relating to a city or a densely populated area
- Various definitions have been used
- Criteria for defining “urban” include the following:
  - Type of administration, e.g., capital city, municipality
  - Population density (areas  $\geq 5,000$ )
  - Type and density of housing
  - Economic aspects: industrial vs. agricultural
  - Access to basic services, e.g., water, sanitation
  - Access to developed areas, e.g., streets
  - Access to support services, e.g., schools, clinics
- The definition of “urban” varies widely



# Definition of “Urban” in UN Member Countries

- UN compiles data for 228 countries
- Half use administrative considerations, such as residing in the capital of the country or in a municipal area
- Fifty-one countries distinguish urban and rural populations based on the size or density of the locales
- Thirty-nine rely on functional characteristics, such as the main economic activity of an area (“non-agricultural”)
- Twenty-two have no definition of “urban”
- Eight countries classify all or none of their population as living in urban areas

# How UN Compiles Urban Data?

- The UN accepts each country's definition when it calculates urban population estimates and projections
- This practice recognizes that governments know best what features distinguishes urban from rural places in their own countries
- This approach is, however, problematic

# What Is the Problem with the UN's Approach?

- Since no standard definition exists, this approach hinders comparisons of urban population data across countries
- Moreover, countries change their definition of “urban,” making precise measurement of urban population and comparison over time problematic

# How to Measure Urban Population Change?

- Urban population change is commonly described by two measures
  1. The level of urbanization
  2. The rate of urban growth

# Level of Urbanization

- The level of urbanization represents the proportion of a country's total population that lives in urban areas
- Therefore, urbanization is measured as the percent of the population residing in an urban area

# Rate of Urban Growth

- Urban growth indicates the number of persons added to an urban population during a year per 100 urban dwellers
- This measure is commonly used to compare countries over time and among each other
- Urbanization and urban growth are two different distinct concepts

# Urbanization Trends

- Improving urban conditions worldwide is one of this century's key population health challenges
- Since 2007, the majority of the world's population (for the first time in history) has been living in urban areas
- According to the latest UN projections, urban population will account for two-thirds of the world's population by 2030
- The rural population will decline by about 20 million

# Urbanization Trends

- This shift is the result of the rapid global urbanization that has been underway for more than 250 years
- Rapid urbanization first became manifest in the countries undergoing industrialization in the developed world, and then in Latin America
- Today, its prime loci are the poorer parts of Asia and Africa
- The number of urban dwellers in the least urbanized region, Asia, is already greater than the urban population of North America and Europe combined



# Urbanization Trends

- More than 90% of the world's urban population growth by 2030 will be in less developed regions
- According to estimates by UN-HABITAT, about a third of the world's estimated 3.3 billion current urban residents live in slums or squatters
- All these factors have direct consequences for the physical and psychological well-being of the urban population
- Any effort to measurably improve global health outcomes, especially in these regions, will need to address urban reform

# Contrasting Approaches to Urban Health Studies

- To date, research on urban health has generally taken three different approaches
  1. Urban health penalty
  2. Urban sprawl
  3. Urban advantage
- All these approaches are descriptive of different phenomena that have characterized cities

# Contrasting Approaches to Urban Health Studies

- “Urban health penalty” assumes that cities concentrate poor people and expose residents to an unhealthy physical and social environment
- This approach tends to equate “urbanness” with class and race, with urban health becoming synonymous with conditions among the poor of the inner cities or slums
- This approach undervalues the financial and social assets of cities, including those of poor neighborhoods

# Contrasting Approaches to Urban Health Studies

- The “urban sprawl” approach focuses on the adverse health effects of urban growth into outlying areas
  - Increasing automobile pollution and accidents
  - Sedentary lifestyle and the rise of obesity
  - Social isolation and the break down of social capital
- Proponents of urban sprawl often overlook the inner city altogether, missing the most vulnerable populations

# Contrasting Approaches to Urban Health Studies

- The “urban health advantage” perspective focuses on the positive assets of cities without allowing for the health burden among disadvantaged populations in cities and the potential detrimental impact of city living on population health
- Urban advantage refers to the observation that some health indicators are not only better in urban than in rural areas, but that among the poor in each area, indicators are better for urban residents

# Contrasting Approaches to Urban Health Studies

- All these approaches make important contributions; however, they also have limitations
- Each captures a dimension but not the totality of urban health
- The limitations of current approaches indicate that a more comprehensive model is needed, i.e, one that can integrate these approaches and yet expand to consider other features of living in cities that affect or promote health



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## Section B

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A Framework for the Study of Urban Health

# A Conceptual Framework for Studies of Urban Health

- The proposed framework will show that the health of urban populations is a function of a variety of factors, including ...
  - More distant enduring structures
  - Global and national trends that shape the context in which the local factors operate
  - Local factors, including ...
    - ▶ Municipal-level determinants
    - ▶ Urban living conditions
    - ▶ Urban health systems
- Although these factors influence each other, the pathways of influence are not entirely linear, and each also has an independent effect on health



# A Conceptual Framework for Urban Health Studies

Enduring social structures and conditions: political and economic systems, religion, culture, etc.

# A Conceptual Framework for Urban Health Studies

## Major global and national trends

- Immigration
- Urbanization
- Suburbanization
- Globalization
- Changes in the role of governments

Enduring social structures and conditions: political and economic systems, religion, culture, etc.

# A Conceptual Framework for Urban Health Studies

## Major global and national trends

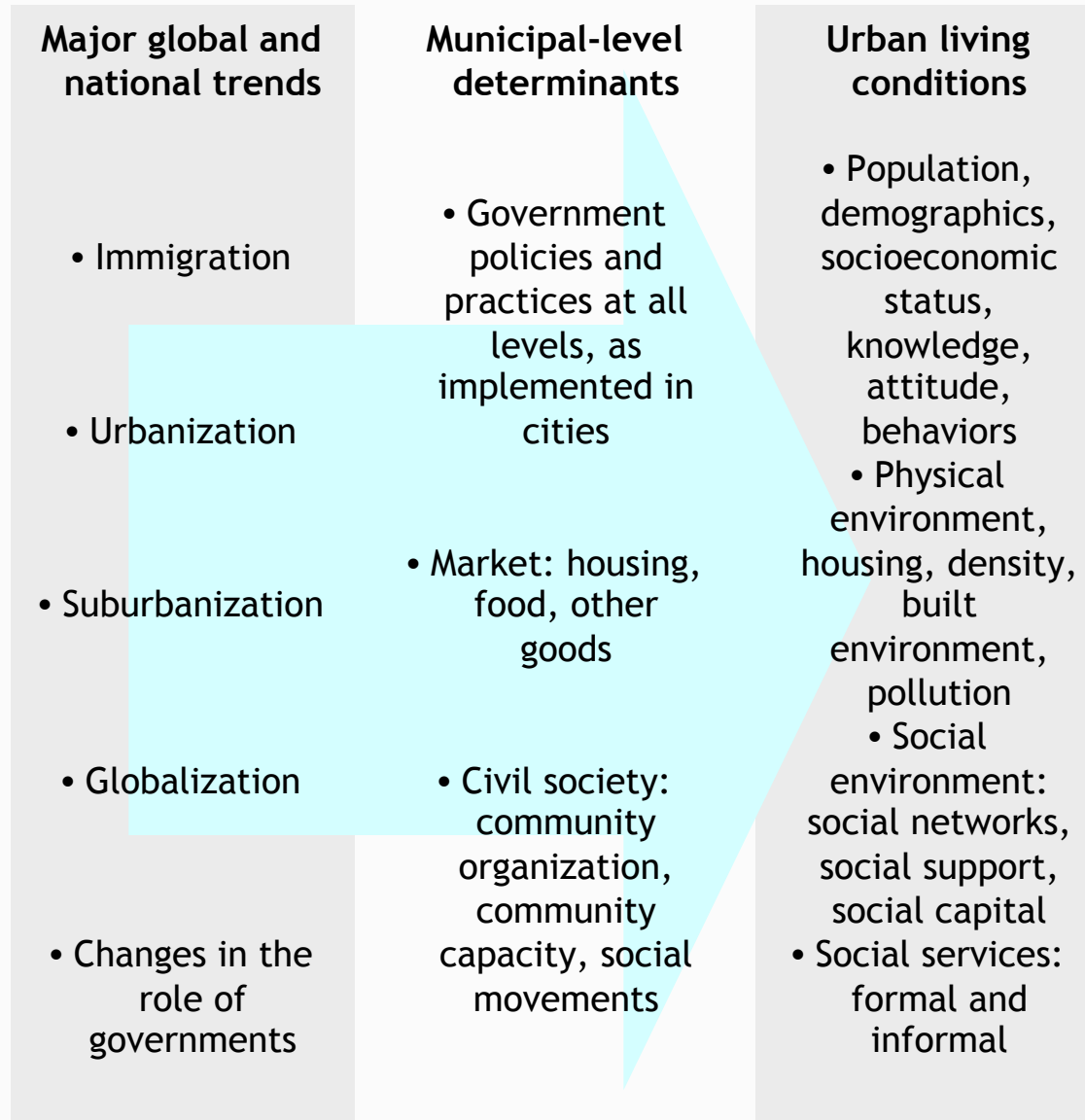
- Immigration
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- Suburbanization
- Globalization
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## Municipal-level determinants

- Government policies and practices at all levels, as implemented in cities
- Market: housing, food, other goods
- Civil society: community organization, community capacity, social movements

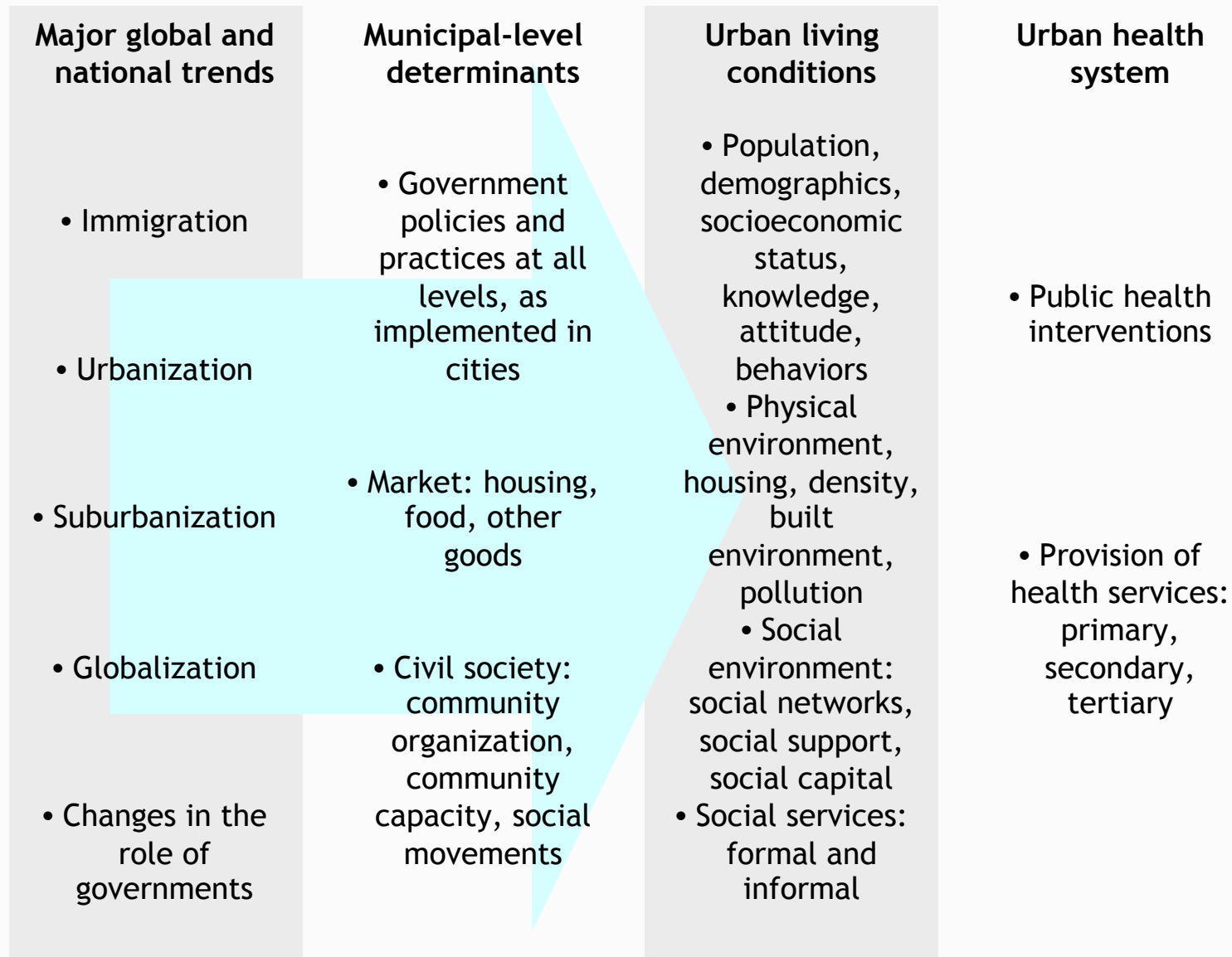
Enduring social structures and conditions: political and economic systems, religion, culture, etc.

# A Conceptual Framework for Urban Health Studies



Enduring social structures and conditions: political and economic systems, religion, culture, etc.

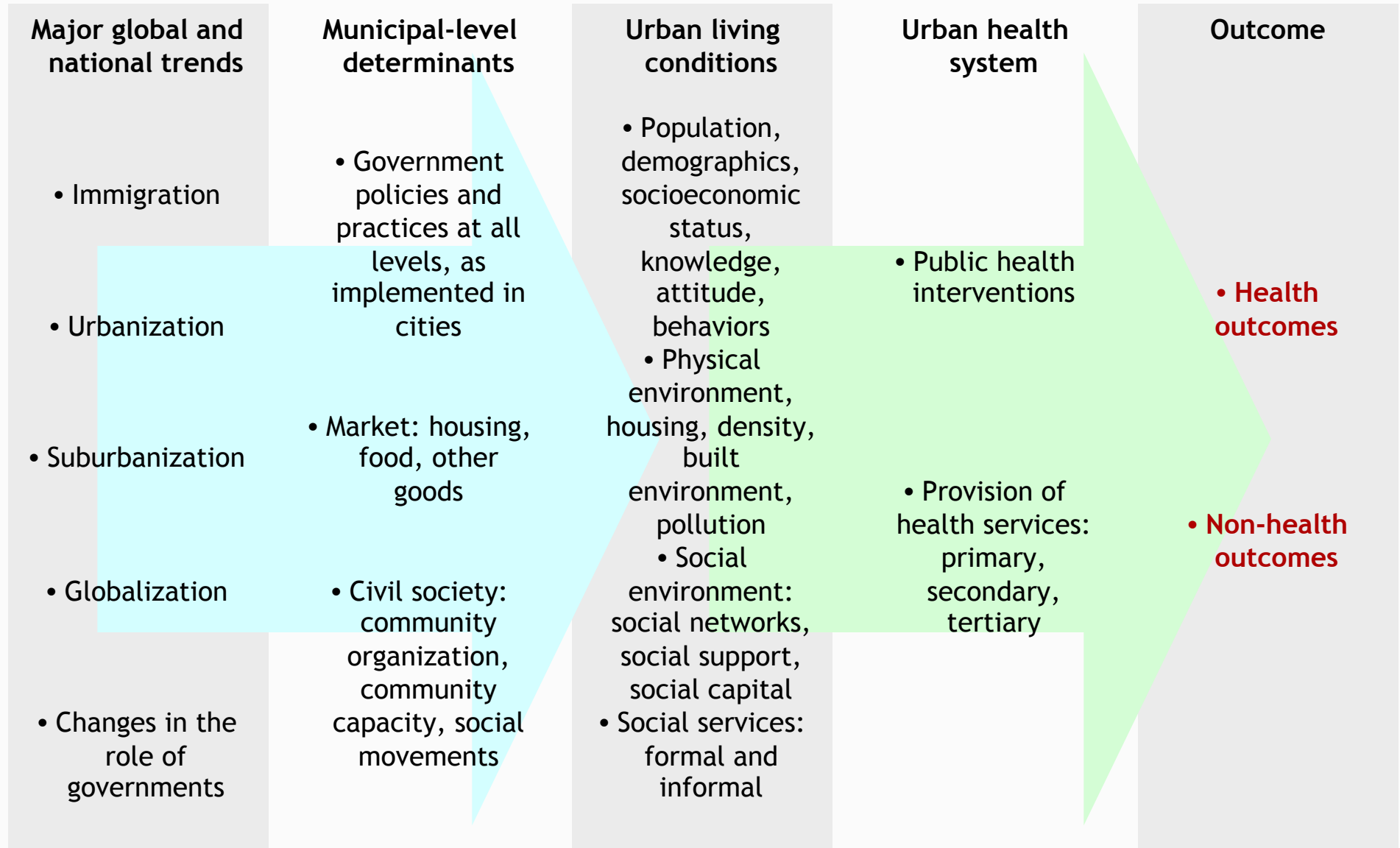
# A Conceptual Framework for Urban Health Studies



Enduring social structures and conditions: political and economic systems, religion, culture, etc.

# A Conceptual Framework for Urban Health Studies

Adapted from Galea, S., Freudenberg, N., and Vlahov, D. (2005).



Enduring social structures and conditions: political and economic systems, religion, culture, etc.

# Why Include Non-Health Outcomes?

- Including non-health outcomes allows interventionists to specify the broader contributions of public health
- For example, improving housing in low-income urban neighborhoods may not only reduce exposure to environmental pollutants, but may also increase neighborhood stability, reduce crime, and improve economic development
- This allows planners, policy makers, and residents to have more accurate estimates of costs and benefits of various interventions

# Application of the Proposed Framework

- The framework allows the research focus to be narrowed to specific areas or broaden to more general perspectives
- Take the example of how much the transit system affects health
- One level of analysis may relate to the congestion of people in subways where the risk of airborne transmission of infectious diseases, commission of violent crime, or emission of debilitating noise can affect people across racial, ethnic, income, and neighborhood boundaries



# Application of the Proposed Framework

- Alternatively, investigators could work on examining ...
  - Municipal determinants, e.g., how the mass transit system is managed and financed, local incentives or penalties for automobile use
  - National trends, e.g., declining federal support for cities and mass transit
- Each level of analysis suggests direction for intervention to improve health

## Concluding Observations

- First, cities continue to grow, and a majority of people in both the developed and developing worlds will be living in urban areas throughout the 21st century, making urban health an urgent priority
- Second, although estimates of various health conditions suggest that the burden of disease in cities is greater than that in non-urban areas, it has not always been so and is not certainly true for all cities and diseases today. There are many positive aspects of cities and urban living. Documenting the health benefits of cities, and developing interventions to maximize them, is an important priority.

## Concluding Observations

- Third, to understand urban health we must shift our focus of inquiry from disease outcomes to urban exposures. Such an approach will enable us to move from description to intervention.
- Fourth, the study of urban health must acknowledge the reality and complexity. There are no simple solutions to the multi-dimensional health problems facing cities today.

## Concluding Observations

- Fifth, many disciplines need to contribute to the study of cities. New methodologies in epidemiology, geography, the quantitative social sciences, anthropology, and psychology, and technical contributions from engineers, architects, and urban planners are among the strands to contribute to a science of urban health.
- Finally, improvements in the health of urban populations have always depended and will continue to depend not only on new scientific understanding, but also on continuing political mobilization and commitment to social values that support healthy cities