



الحقيبة التعليمية لمادة المسح الصحي للعام الدراسي 2024-2025

Course Details

Course Title	Community Health Services
Category	Health Survey
Academic Year	Third Year
Weekly Hours	2 hour “Theory”
	4 hours practical
Units	4 Unit
Teaching Language	English
The lecturer	Zahraa Ahmed Abd

Course Objectives

General Objective

To provide students with a comprehensive understanding of health surveys, including their purpose, design, data collection methods, and application in assessing and improving community health.

Learning Objectives: By the end of the semester, students will be able to:

- 1- Define primary data.
- 2-Describe the purposes and uses of primary data in community health assessment.
- 3-Discuss the different methods for obtaining community data.

The curriculum:

Weeks	Subjects
1.	Introduction in health survey, health system, Sources of health data
2.	Analyzing and Interpreting Community Health Data & Prioritizing Health Issues
3.	Current Issues in Community Health Assessment and Improvement
4.	Developing a Community Health Improvement and Assessment Plan to Address the Health Effects of the Built Environment
5.	
6.	Community Health Improvement Framework and Health and Its Determinants
7.	
8.	Assessing Community Health Status through the Use of Primary Data
9.	
10.	Assessing Community Health Status using Surveillance Systems and Secondary Data
11.	
12.	Analyzing and Interpreting Community Health Data & Prioritizing Health Issues
13.	
14.	Developing a Community Health Improvement and Assessment Plan to Address the Health Effects of the Built Environment
15.	

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Health Survey Lectures

MSc. Zahraa Ahmed Abd



Introduction to Health Survey, Health System, and Sources of Health Data



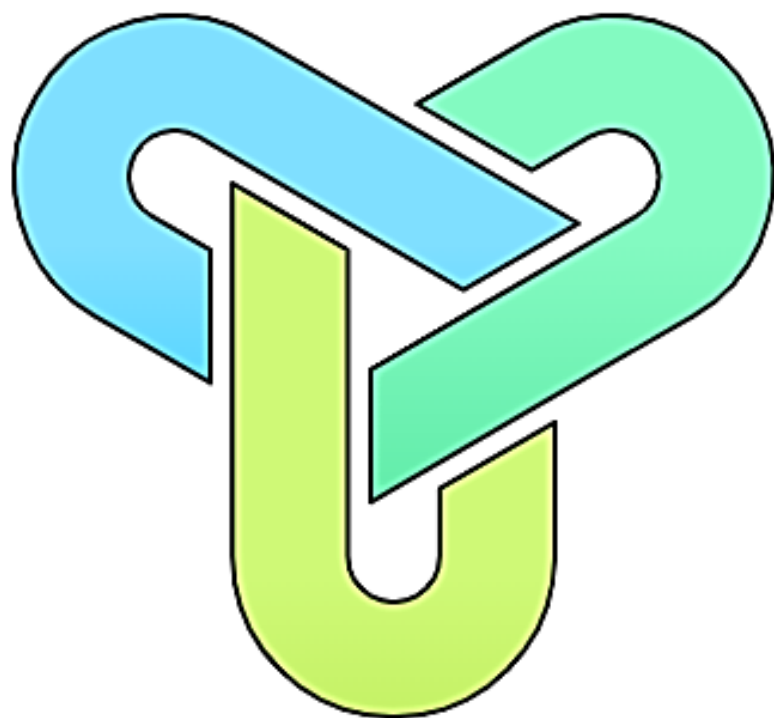
What is a Health Survey?

- A systematic method of collecting data on health-related issues.
- Used to assess health status, risk factors, and service utilization.
- Examples: National Health and Nutrition Examination Survey (NHANES), Demographic and Health Surveys (DHS).

Key Roles of Health Surveys

Supporting Research

Provides data for
health studies



Policy-Making

Guides decisions
on health policies

Identifying Health Challenges

Detects emerging
health issues

Health System Framework

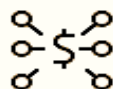
Leadership & Governance

Policies and regulations.



Financing

Funding mechanisms for healthcare.



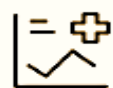
Medical Products

Essential medicines and innovations.



Health Information

Data collection and management.



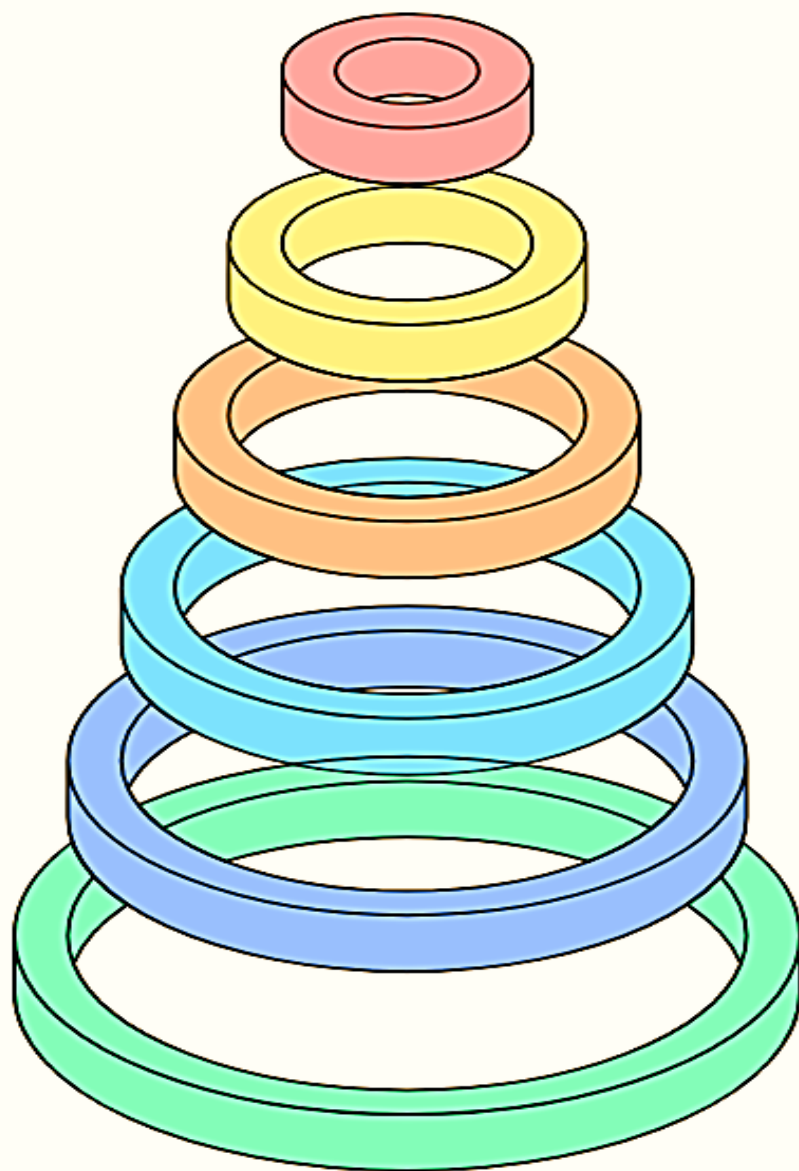
Health Workforce

Trained professionals delivering healthcare.



Service Delivery

Providing quality health services.



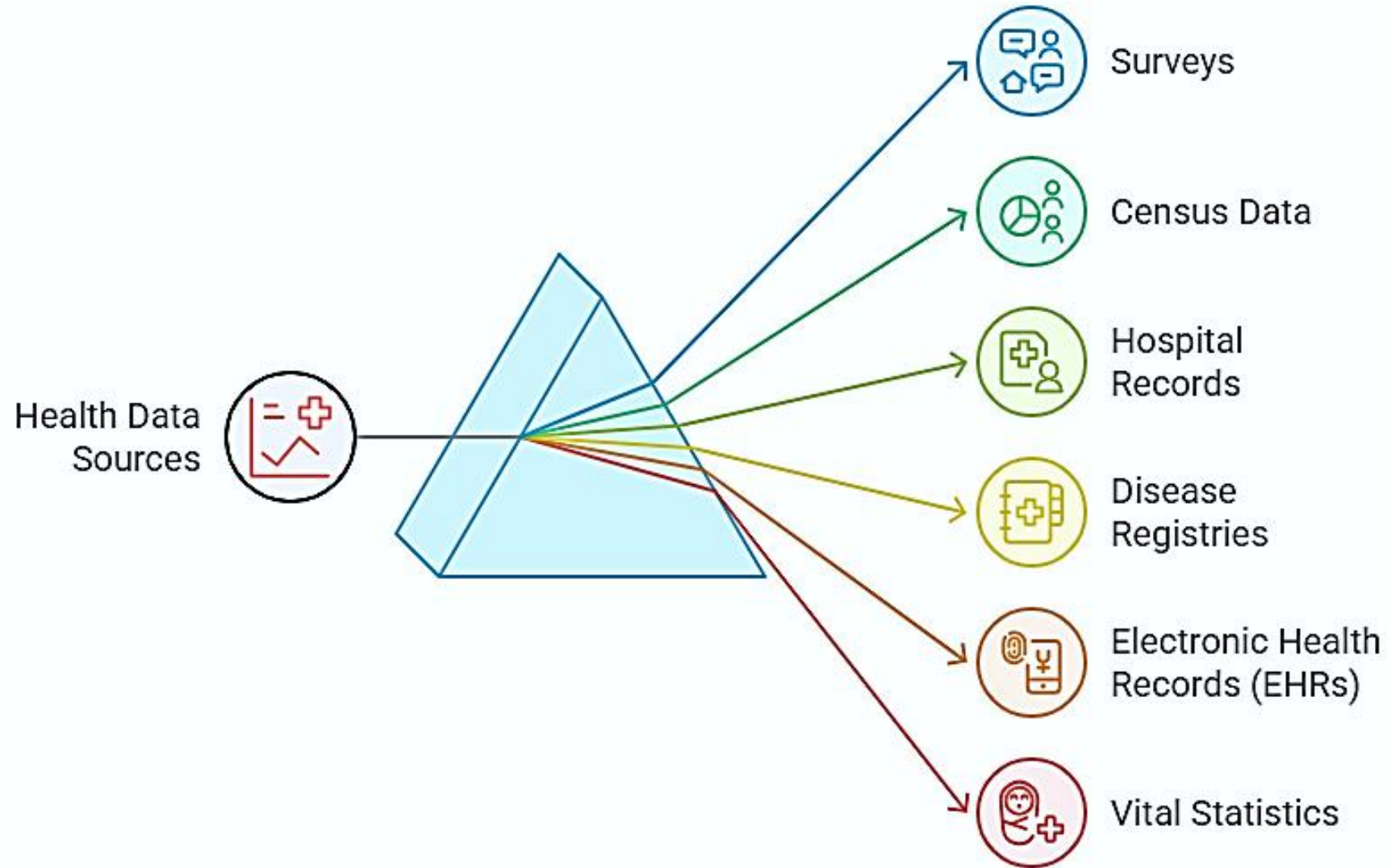
Functions of a Health System

- Providing health services to individuals and communities.
- Protecting against health emergencies and risks.
- Promoting equitable access to healthcare.
- Strengthening public health infrastructure.

What is Health Data?

- Information related to individuals' health status, healthcare services, and public health trends.
- Used for decision-making, research, and policy development.
- Types:
 - Individual-level data,
 - population-level data,
 - clinical data,
 - epidemiological data.

Health Data Sources



Importance of Health Data

- Improves healthcare planning and delivery.
- Helps track disease outbreaks and public health trends.
- Aids in health policy formulation and evaluation.
- Enhances medical research and innovation.

Challenges in Health Data Collection

- Data privacy and security concerns.
- Incomplete or inaccurate data.
- Limited access to reliable sources in low-resource settings.
- Ethical issues in health data collection and usage.

Conclusion

- Health surveys, health systems, and health data are crucial for improving public health.
- Reliable data supports evidence-based decision-making.
- Strengthening health systems ensures better healthcare outcomes.





Thank You

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Lec.2 : Analyzing And Interpreting Community Health Data & Prioritizing Health Issues



Introduction To Community Health Data

- ▶ Definition: Community health data refers to information collected to assess the health status and needs of a population.
- ▶ Purpose:
 1. Identify health trends,
 2. Monitor disease patterns,
 3. and support public health planning.
- ▶ Sources: Government databases, hospital records, public health surveillance systems.

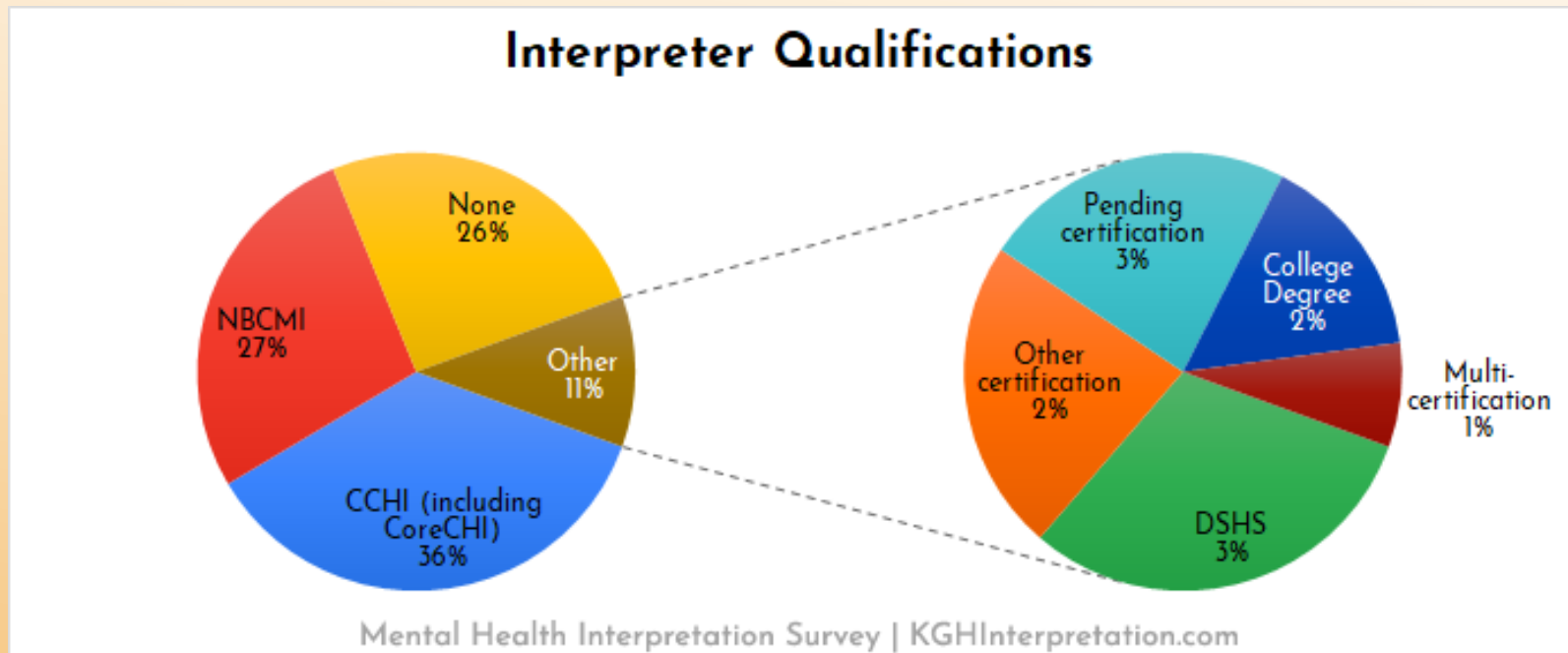
Types Of Community Health Data

- ▶ Quantitative Data: Numerical data (e.g., incidence and prevalence rates).
- ▶ Qualitative Data: Non-numerical insights (e.g., interviews, focus groups).
- ▶ Primary Data: Directly collected through surveys and assessments.
- ▶ Secondary Data: Existing data from reports, research, and registries.

Interpreting Community Health Data

Definition of Interpreting Community Health Data:

Interpreting community health data involves analyzing and understanding information collected about a population's health.



Benefits of Interpreting Community Health Data

- **Identifying Health Needs:** Helps pinpoint the most pressing health concerns within a community.
- **Tracking Health Trends:** Reveals patterns over time, such as rising chronic disease rates or improving vaccination coverage.
- **Informing Policy and Planning:** Supports the development of targeted health programs and policies.
- **Reducing Health Disparities:** Highlights differences in health outcomes among demographic groups, encouraging equitable solutions.
- **Evaluating Interventions:** Measures the effectiveness of health initiatives, allowing adjustments for better outcomes.

Methods Of Data Analysis

Methods for Analyzing and Interpreting Health Data

A. Descriptive Statistics:

- Mean, median, and mode to summarize data.
- Standard deviation to measure data variability.
- Rates and proportions (e.g., incidence and prevalence rates).

B. Data Visualization Techniques

- Graphs and Charts: Bar charts, pie charts, line graphs.
- Geospatial Analysis: Mapping disease prevalence using GIS tools.
- Trend Analysis: Identifying patterns over time.

Methods of Data Analysis

C. Epidemiological Measures

- Incidence Rate: New cases of a disease in a specific time frame.
- Prevalence Rate: Total number of cases at a given time.
- Mortality and Morbidity Rates: Death and disease burden statistics.

Process of Data Analysis



Prioritizing Health Issues in Communities

Prioritizing health issues in communities: is the process of identifying and ranking public health concerns based on their severity, impact, and feasibility of intervention.

Since resources such as funding, personnel, and time are limited, prioritization helps decision-makers focus on the most critical health problems that require immediate attention.

Methods for Prioritizing Health Issues

A. Hanlon Method

A systematic approach that considers four main factors:

1. Size of the Problem – How widespread is the issue?
2. Seriousness of the Problem – How severe are the consequences?
3. Effectiveness of Interventions – Are there proven interventions?
4. PEARL Score – Examines Propriety, Economics, Acceptability, Resources, and Legality of intervention feasibility.

Example

A community assessing chronic diseases might find that heart disease has a higher burden and severity than asthma, leading to prioritization of cardiovascular health interventions.

Methods for Prioritizing Health Issues

B. Nominal Group Technique (NGT)

A structured decision-making process where a group of experts or community members rank health issues based on discussion and voting.

Example

Local health officials and community representatives list the most pressing health concerns (e.g., obesity, mental health, infectious diseases), then rank them in order of urgency.

Methods for Prioritizing Health Issues

C. Multi-Criteria Decision Analysis (MCDA)

A method that assigns weights to different criteria (e.g., prevalence, cost-effectiveness of interventions, public concern) and scores each health issue accordingly.

Example

A local health department might evaluate diseases based on:

Prevalence (40%)

Economic burden (30%)

Feasibility of intervention (20%)

Community demand (10%)

A final score determines which issue gets the highest priority.

Methods for Prioritizing Health Issues

D. Community-Based Prioritization

Engaging the community directly through surveys, focus groups, or town hall meetings to determine which health issues they consider most urgent.

Example

A rural community might prioritize clean drinking water access over non-communicable diseases due to immediate public health risks.

Methods for Prioritizing Health Issues

E. DALY (Disability-Adjusted Life Years) and QALY (Quality-Adjusted Life Years) Metrics

- DALY measures the burden of disease by combining years lost due to premature death and years lived with disability.
- QALY evaluates the impact of a disease on quality of life.
- Health issues with higher DALY or lower QALY scores are often prioritized for intervention.



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Assessing Community Health Status

Through Primary Data & Surveillance Systems

Community Health Needs Assessment

A community health needs assessment

is a collaborative analysis of the population, resources, services, health care statuses, health care outcomes, and other data in a defined community or service area that helps identify potential health issues for improvement.

Community Health Needs Assessment Steps



Definition of Primary Data

- ▶ Primary data is information collected directly from the source for the first time.
- ▶ It is gathered through surveys, interviews, field observations, and health screenings.

Methods of Collecting Primary Data

- ▶ - Health Surveys
- ▶ - Interviews & Focus Groups
- ▶ - Field Observations
- ▶ - Health Screenings & Biological Data Collection

Advantages & Disadvantages of Primary Data

► **Advantages:**

- - Up-to-date and accurate
- - Customizable
- - Provides deeper insights

► **Disadvantages:**

- - Time-consuming & costly
- - Response bias
- - Requires training



Examples of Primary Data Use

- ▶ - Studying diabetes prevalence through local health surveys
- ▶ - Understanding vaccine hesitancy via focus groups

Activity: Collecting Primary Data

- Task: Design a questionnaire to collect primary data on a health behavior in your community.

Definition of Secondary Data

- ▶ Secondary data is information collected previously by institutions such as health agencies, hospitals, or government entities.

Sources of Secondary Data

- ▶ - Electronic Health Records (EHRs)
- ▶ - Reports from CDC & WHO
- ▶ - National Surveys & Census Data
- ▶ - Notifiable Disease Reporting Systems

Comparison Primary vs. Secondary Data

- ▶ - Primary data is collected firsthand; Secondary data is pre-existing
- ▶ - Primary data is costly; Secondary data is low-cost
- ▶ - Primary data takes time; Secondary data is readily available

Applications of Secondary Data

- ▶ - Tracking chronic disease trends
- ▶ - Comparing mortality rates
- ▶ - Evaluating public health programs



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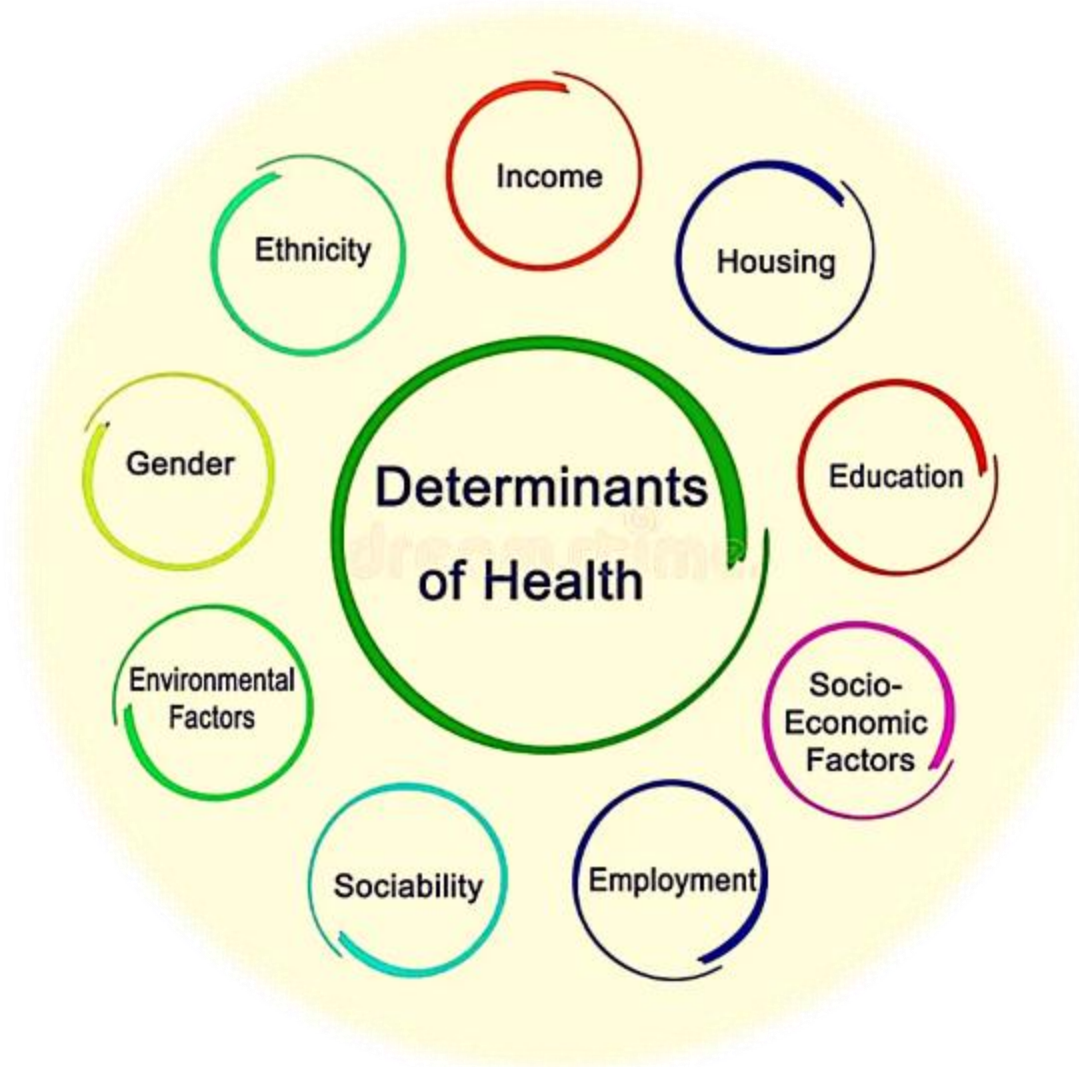
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Community Health Improvement Framework and Health Determinants

2



Introduction

- ▶ Community health improvement is a multi-faceted process that aims to enhance overall well-being by addressing the underlying social, environmental, and behavioral factors that influence health outcomes.
- ▶ The framework serves as a guide to coordinate efforts, align resources, and implement policies and programs that will improve public health at a community level.

Community Health Improvement Framework

- ▶ **Data-driven:** Uses data to assess health needs and inform decisions.
- ▶ **Community-driven:** Involves the community in setting priorities and designing interventions.
- ▶ **Collaborative approach:** Engages various stakeholders (government, healthcare providers, organizations).

Community Health Improvement Framework

- ▶ **Sustainable:** Focuses on long-term health improvements through continuous monitoring and evaluation.
- ▶ **Evidence-based:** Incorporates best practices and research into planning and implementation.

Health Determinants

- ▶ Health determinants refer to the conditions in which people are born, grow, live, work, and age that influence health outcomes.



Health Determinants

1. Social determinants like education, employment, and social support networks.
2. Economic factors such as income, wealth, and access to resources.
3. Environmental conditions such as housing quality, clean air, and access to green spaces.
4. Behavioral factors including lifestyle choices like diet, exercise.
5. Genetic factors such as inherited conditions and predispositions.

Strategies for Health Improvement

- ▶ Health education and promotion: Teaching communities about healthy behaviors and wellness.
- ▶ Policy development: Creating laws and regulations to address health determinants (e.g., tobacco control laws).
- ▶ Community mobilization: Encouraging community members to participate in health programs and activities.

Strategies for Health Improvement

- ▶ Access to healthcare services: Expanding access to quality healthcare services, especially for underserved populations.
- ▶ Partnerships and collaborations: Strengthening ties between public and private sectors, as well as non-profit organizations.

Conclusion

- ▶ Community health improvement requires comprehensive efforts across various sectors.
- ▶ Addressing health determinants can lead to lasting improvements in quality of life.
- ▶ Ongoing evaluation ensures that health initiatives remain effective and relevant.
- ▶ Collaboration and data-driven decision-making are essential to success.

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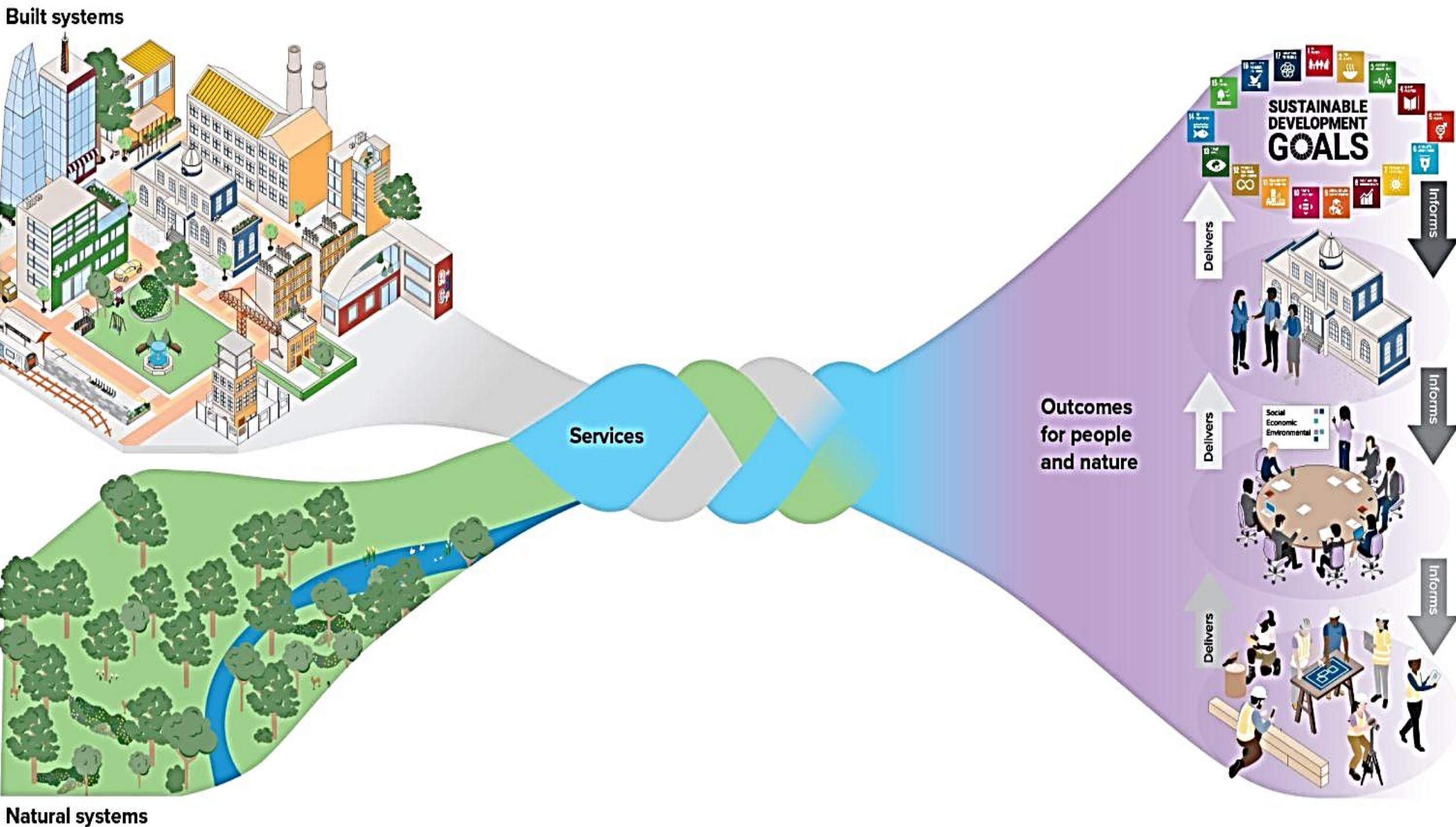
Developing A Community Health Improvement And Action Plan Built Environment

Developing a Community Vision and Action Plan



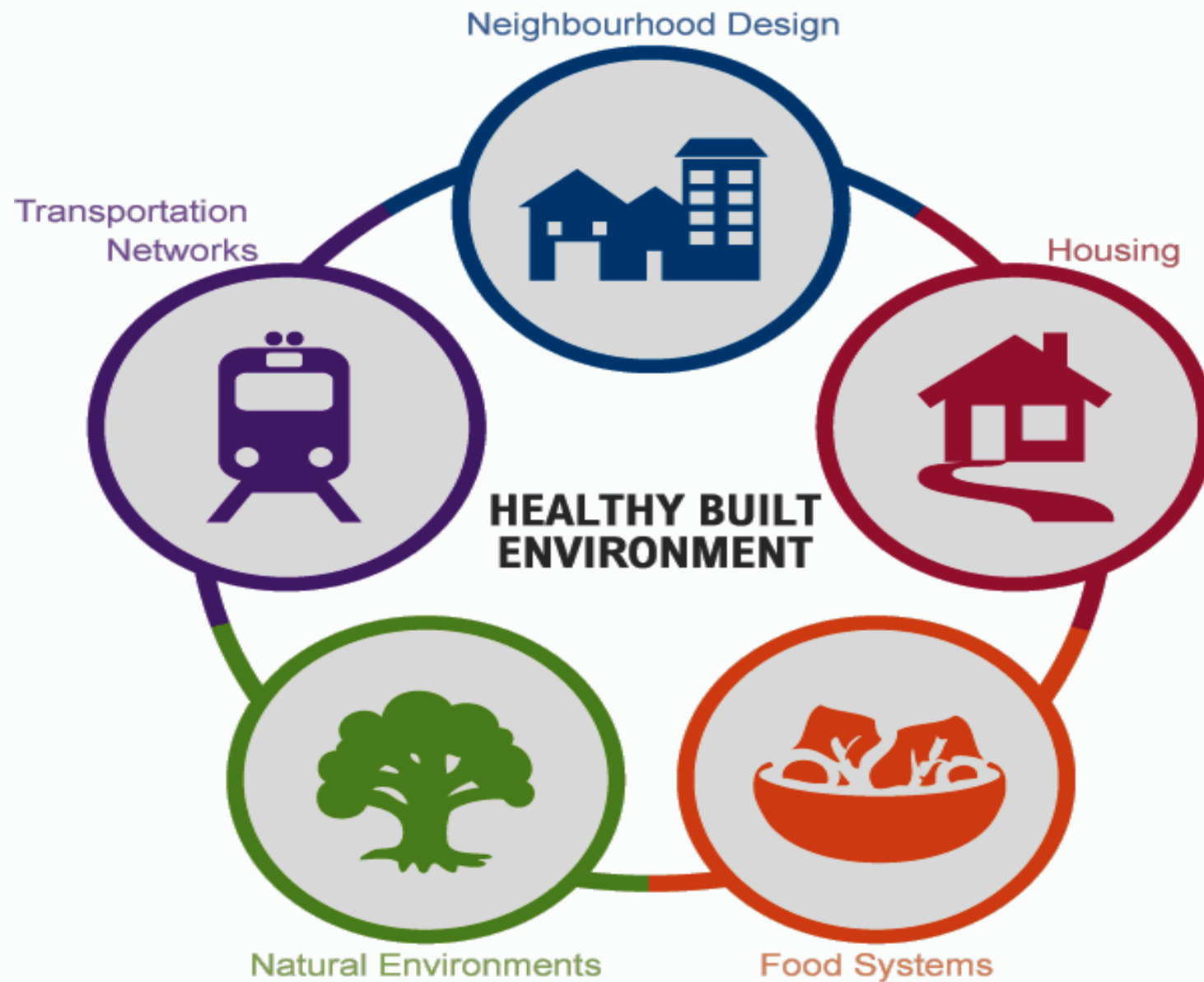
Steps to Develop a Community Health Improvement Plan (CHIP)

- 1. Community Health Assessment: Collect and analyze data.
- 2. Engaging Stakeholders: Involve local leaders and organizations.
- 3. Prioritizing Health Issues: Focus on the most pressing problems.
- 4. Developing an Action Plan: Set goals and implement strategies.
- 5. Monitoring and Evaluation: Measure progress and adjust actions.



What is the Built Environment?

- The built environment refers to the human-made surroundings that provide the setting for human activity. It includes:
- Housing and buildings
- Transportation and infrastructure
- Parks and green spaces
- Air and water quality
- Urban design and land use



A Framework for Healthy Built Environment

Health Impacts of the Built Environment

- Positive Impacts:
 - Green spaces improve mental health
 - Walkability reduces obesity and cardiovascular diseases
 - Access to healthy food enhances nutrition
- Negative Impacts:
 - Air pollution increases respiratory diseases
 - Poor infrastructure leads to higher injury rates

Identifying Health Issues in a Community

- Key questions to assess built environment health effects:
- What are the main health challenges in the community?
- Are there disparities in access to healthy environments?
- How do air, water, and transportation systems impact residents?
- What data sources can be used to evaluate community health trends?

Strategies to Improve the Built Environment

- Enhancing green spaces and recreational areas
- Promoting active transportation (e.g., walking, cycling)
- Strengthening policies for clean air and water
- Improving public transportation systems
- Designing safer and more accessible streets
- Encouraging community participation in urban planning



