

# Public Health 101

**August 16, 2023**



LOS ANGELES COUNTY  
**COMMISSION ON HIV**



# Learning objectives

At the end of this session, you will be able to:

- Define public health
- Describe the 3 core functions and 10 essential services of public health
- List the determinants of health
- Recognize how the determinants of health affect populations

# What is Public Health?

Public health is “the science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals.” — CEA Winslow

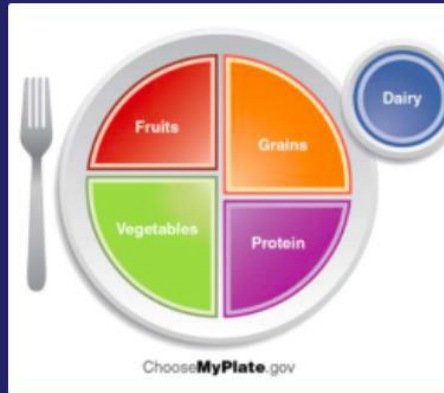
“Public Health is the practice of preventing disease and promoting good health within groups of people, from small communities to entire countries.” – American Public Health Association

Science-based, evidence-backed field that strives to give everyone a safe place to live, learn, work and play.

# The 3 P's of Public Health



**Prevention** – prevent injury or illness. Is individual and community-focused



**Promotion** – education and advocacy to encourage healthy behaviors



**Protection** – establishing policies including enforcement of policies



# Why is Public Health important?

Public health works to improve the life expectancy and overall wellness of diverse populations.

By focusing on community-wide prevention and overall health, public health saves our communities money, improves our quality of life, helps children thrive and reduces human suffering.

Prevents epidemics  
and the spread of  
disease

Protects against  
environmental  
hazards

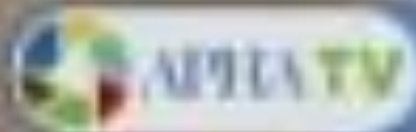
Prevents injuries

Promotes and  
encourages healthy  
behaviors

Responds to disasters  
and assists  
communities in  
recovery

Assures the quality  
and accessibility of  
health services

What is  
public health?



Georges Benjamin, MD

National Director  
American Public Health Association

# Difference between public health and medicine

Medicine	Public Health
Individual patient focus	Population focus
Personal service ethic	Public service ethic
Emphasis on diagnosis and treatment	Emphasis on prevention, health promotion
Emphasis on medical care	Spectrum of interventions targeting the environment, human behavior/ lifestyle, & medical care
Clinical sciences an essential part of professional training	Clinical sciences peripheral to professional training
Joint laboratory and patient involvement	Joint laboratory and field involvement
Private sector basis	Public sector basis
Social sciences tend to be an elective part of medical education	Social sciences an integral part of public health education

# Study reveals enormous toll of being Black in U.S.

Higher mortality rate has led to 1.63 million excess deaths relative to white Americans over two decades.



COVID-19 — which hit Black Americans hard — erased two decades of progress in closing the gap in life expectancy between Black and white Americans. (Francine Orr/Los Angeles Times)

# U.S. maternal deaths keep rising. Here's who is most at risk

July 4, 2023 · 7:14 PM ET

By Pien Huang, Jane Greenhalgh



Black women. But they are also rising among other racial

# E-Cigs Are Still Flooding the US, Addicting Teens With Higher Nicotine Doses

By Liz Szabo  
JUNE 26, 2023

REVEALS THIS STORY    SIGN UP FOR NEWSLETTERS



Flavored vape and e-cigarette products on display at a convenience store in El Segundo, California, last summer. (PHOTO: J. LEE/ISTOCK/GETTY IMAGES)



# History of Public Health

Major efforts focus on 4 key areas:

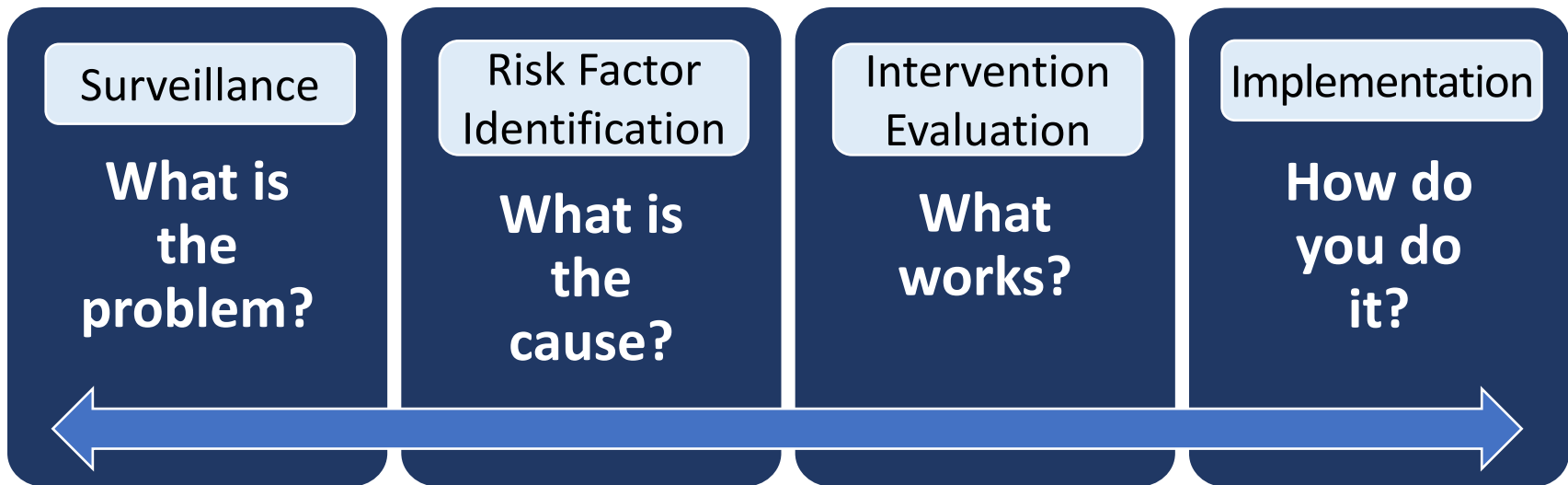
- Sanitation and Environmental Health
- Pandemics/Infectious Diseases
  - Established quarantine and isolation measures to prevent spread of diseases
- Disaster Preparedness and Response
  - Natural and human-made threats
- Policy
  - Implementation of policies to support efforts

Since 1900, the average life expectancy for Americans has increased about 30 years; 25 of those years are attributed to public health initiatives.

<https://vimeo.com/432519837>

# The Public Health Approach

An overarching framework for addressing public health issues and conditions.



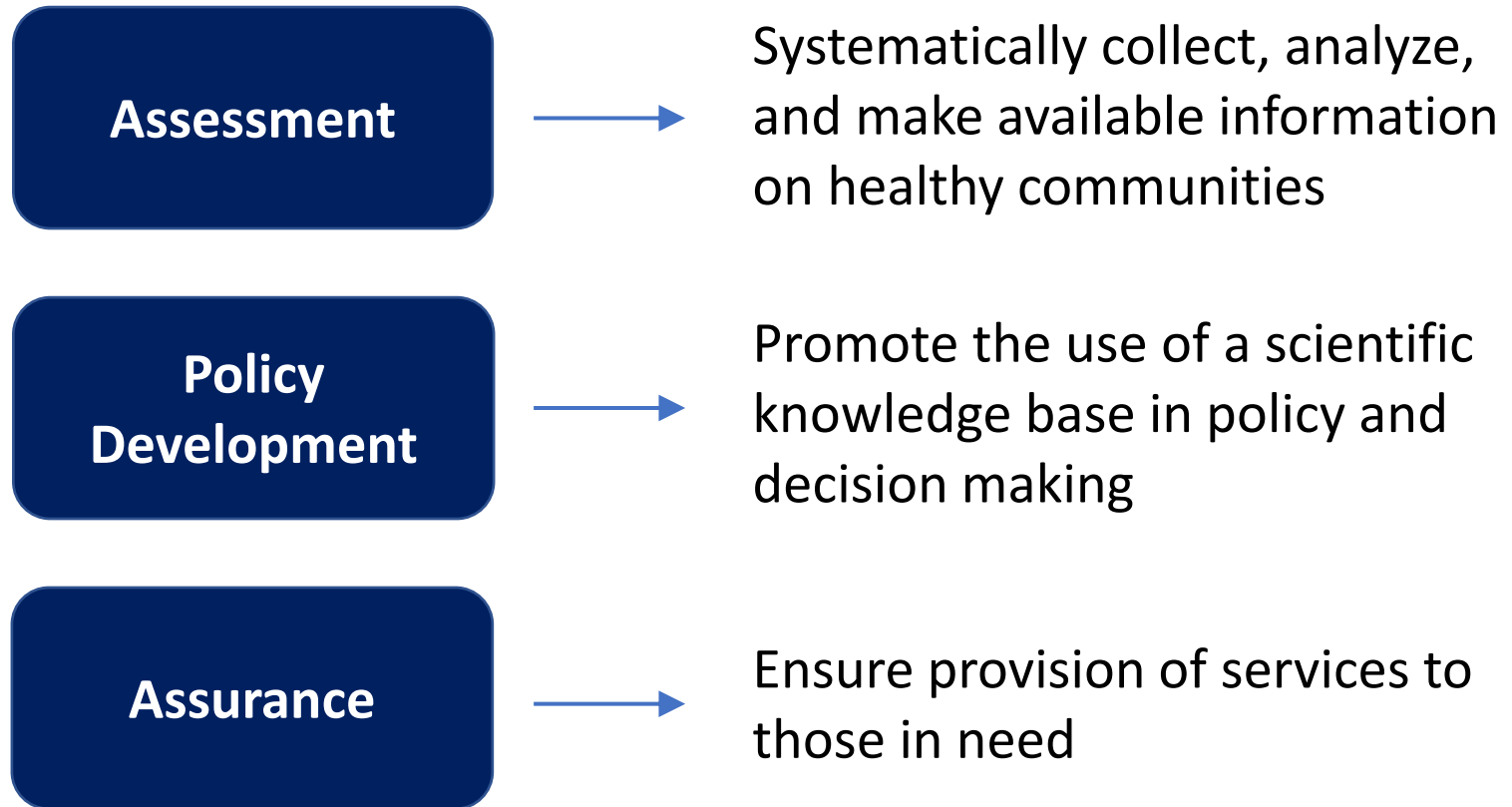
**Problem**



**Response**

# What Are the Core Functions of Public Health?

Foundation of public health lies within 3 core functions:



These functions work together to restore, improve, promote, and protect the health of the greater good, through collective action.

# 10 Essential Services of Public Health

Within the core functions are 10 essential services.

Framework to protect and promote the health of all people in all communities. They interactively support the three core functions of public health and work to create health equity.



# Assessment

- **Essential Public Health Service #1** - Assess and monitor population health status, factors that influence health, and community needs and assets
  - Example: Collecting, monitoring, and analyzing data on health factors to identify threats, patterns, and potential issues
- **Essential Public Health Service #2** - Investigate, diagnose, and address health problems and hazards affecting the population
  - Example: Using real-time data to identify and respond to acute outbreaks, emergencies, and other health hazards

# Policy Development

- **Essential Public Health Service #3** - Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it
  - Example: Making health information and resources accessible to the public that is easy to understand
- **Essential Public Health Service #4** - Strengthen, support, and mobilize communities and partnerships to improve health
  - Example: Fostering and building genuine, strengths-based relationships with a diverse group of partners that reflect the community and the population

# Policy Development

- **Essential Public Health Service #5** - Create, champion, and implement policies, plans, and laws that impact health
  - Example: Continuously monitoring and developing policies, plans, and laws that improve public health and preparedness and strengthen community resilience
- **Essential Public Health Service #6** - Utilize legal and regulatory actions designed to improve and protect the public's health
  - Example: Conducting enforcement activities to sanitary codes in the food industry or timely follow-up on exposure-related diseases identified in community settings

# Assurance

- **Essential Public Health Service #7** - Assure an effective system that enables equitable access to the individual services and care needed to be healthy
  - Example: Engaging health delivery systems to assess and address gaps and barriers in accessing needed health services, including behavioral and mental health
- **Essential Public Health Service #8** - Build and support a diverse and skilled public health workforce
  - Example: Building a culturally competent public health workforce and leadership that reflects the community and practices cultural humility



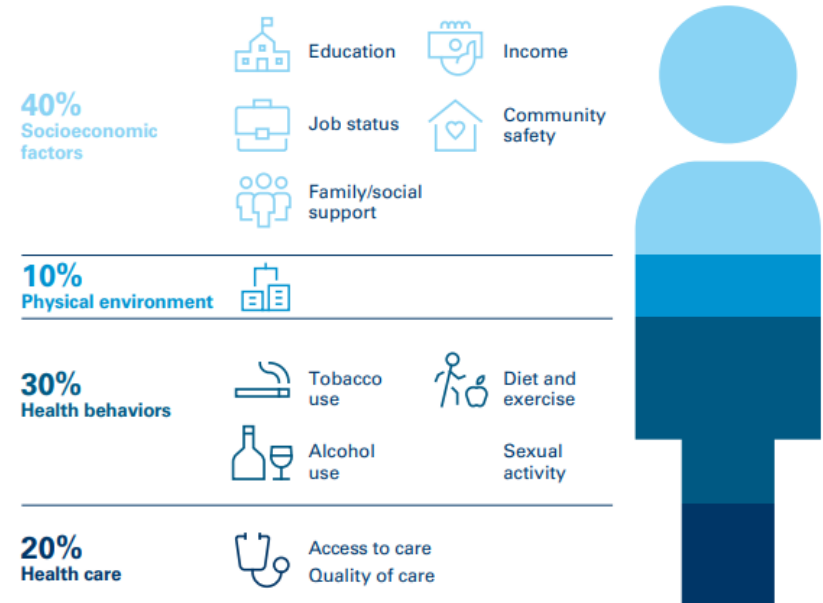
# Assurance

- **Essential Public Health Service #9** - Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement
  - Example: Using research, evidence, practice-based insights, and other forms of information to inform decision-making
- **Essential Public Health Service #10** - Build and maintain a strong organizational infrastructure for public health
  - Example: Ensuring that appropriate, needed resources are allocated equitably for the public's health

# What determines health in a population?

Health is influenced by many factors:

- Genetics
- Behavior – diet, tobacco & alcohol use, sexual activity
- Medical Care
- Environment and Physical Influences
- Social Factors – education, income, family/social support



Social and environmental factors may impact up to 50% of health outcomes.

# Social Determinants of Health

Social determinants of health are the conditions in the places where people live, learn, work, play, and worship that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

- Social and Community Context (including racism and discrimination)
- Healthcare Access and Quality
- Neighborhood and Built Environment
- Education Access and Quality
- Economic Stability

Social determinants of health affect health equity

# Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education		Stress	
Support	Walkability				
	Zip code / geography				

## Health Outcomes

Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

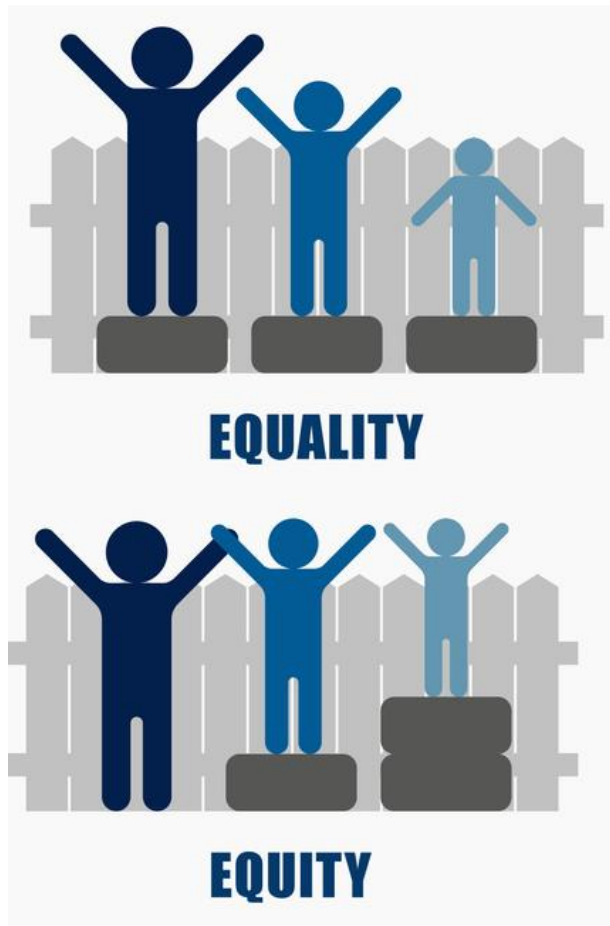
# Why Address the Social Determinants of Health?

Addressing social determinants of health is a primary approach to achieving health equity.

- Shown to have a higher impact on health than either genetic factors or access to healthcare services

SDOH is a multifaceted public health problem. Provides an opportunity for collaboration with many sectors (e.g., transportation, education, housing, healthcare) and types of organizations (e.g., public agencies, private industry, community-based organizations).

# Health Equity



**Health equity** is the state in which everyone has a fair and just opportunity to attain their highest level of health.

Requires ongoing efforts to:

- Address historical and contemporary injustices
- Overcome economic, social, and other obstacles to health and health care
- Eliminate preventable health disparities

To achieve health equity, we must change the systems and policies that resulted in generational injustices that give rise to racial and ethnic health disparities.

# Importance of Collaboration in Public Health

No one sector can solve these issues on their own. They require partnering across sectors.

Public health cannot function without collaboration.



# Public Health Infrastructure

All public health services depend on the presence of basic infrastructure. Public health infrastructure provides communities, states, and the nation the capacity to prevent disease, promote health, and protect populations against various health threats.

Infrastructure at the federal, state, and local level serve as the foundation for undertaking the basic responsibilities (core functions) of public health.

Every public health agency/program requires public health professionals who are competent in cross-cutting and technical skills, up-to-date information systems, and possess the capacity to assess and respond to community health needs.



# Public Health Infrastructure

While a strong infrastructure depends on many organizations, public health agencies (health departments) are considered primary players. Federal agencies rely on the presence of solid public health infrastructure at all levels to support the implementation of public health programs and policies and to respond to health threats.

Federal – US Department Health and Human Services

- Centers for Disease Control and Prevention
- Food and Drug Administration
- Health Resources and Services Administration

State – California Department of Public Health

Local – Los Angeles County Department of Public Health

# Core Functions at Government Levels

	Assessment	Policy Development	Assurance
Federal	National tobacco public health surveillance	Smoking ban on commercial flights	Federal grants for antismoking research
State	Monitor state tobacco use	Increase tobacco tax	Funding for campaign through Proposition 99
Local	Report on local tobacco use	County laws prohibiting smoking in bars	Resources to help smokers quit in multiple languages

# Local Public Health in Action

- Processing vital records such as birth and death certificates
- Conduct disease surveillance 24 hours a day seven days a week
- Investigate disease outbreaks
- Let people know if they've come into contact with a disease
- Educating families on the proper use of seatbelts, helmets & child seats
- Plan responses to disasters with cities, businesses, and school

STATE OF CALIFORNIA  
CERTIFICATION OF VITAL RECORDS  
COUNTY OF LOS ANGELES  
DEPARTMENT OF HEALTH SERVICES

CERTIFICATE OF DEATH

Full Name of Deceased: John S. Brown  
Sex: Male  
Date of Birth: 11/24/2001  
Age: 78  
Race: White  
Maiden Name: [Blank]  
Social Security Number: [Blank]  
Date of Death: 11/29/2001  
Time of Death: 10:00 AM  
Place of Death: [Blank]  
Cause of Death: METASTATIC NON-SMALL CELL LUNG CANCER  
Date of Issue: 12/07/2001  
Registrar: [Signature]



# Local Public Health in Action



- Inspect and grade restaurants, markets, and food trucks to prevent food-related illness
- Collecting and using data, technology and innovation to eliminate poor health outcomes that impact our most vulnerable populations
- Inspect and license various health facilities to ensure individual and community safety
- Inspect homes to prevent lead poisoning and other dangers
- Respond to countywide emergencies

## COVID-19

All the information you need to Stay Safe, Stay Healthy, & Get Vaccinated

If you need further assistance or help with resources, please call (833) 540-0473. Open 7 days a week, 8:00 am – 8:30 pm.

[VIEW COVID-19 RESPONSE PLAN](#)

# Where Do Public Health Professionals Work?

Public health spans several disciplines and public health professionals work in many different settings.

- Public Health Departments
- Hospitals/clinics
- Universities/schools
- Laboratories
- Nonprofits
- Private businesses
- Government



# Types of Public Health Professionals

- Physicians and Nurses
- Health Education Specialists
- Epidemiologists
- Industrial Hygienist
- Microbiologists
- Public Health Investigators
- Program Administrators
- Community Health Workers
- Disaster Management Specialist
- Dentists
- Environmental Health Specialists
- Scientists and Researchers

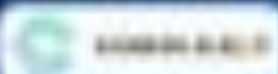
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**WHY TREAT PEOPLE  
AND SEND THEM BACK  
TO THE CONDITIONS THAT  
MADE THEM SICK?**

– MICHAEL MARMOT

EPIDEMIOLOGY



THAT'S PUBLIC HEALTH



*What is Public Health?*





**Questions?**



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