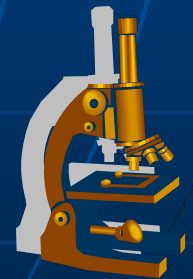




WHAT IS PUBLIC HEALTH?

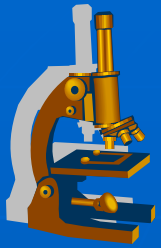
What is Public Health?

Public Health is the science of protecting and improving the health of communities through *education*, *promotion of healthy lifestyles* and *research for disease and injury*.



What is Public Health?

Public health involves the application of many *different disciplines* including:



What is Public Health?



Biology

Sociology

Mathematics

Anthropology

Public policy

Medicine



Education

Psychology

Computer Science

Business

Engineering

and more



What is Public Health?

Public health is concerned with protecting the health of entire populations. These populations can be as small as a _____, or as big as an _____.

Focus is on entire _____ rather than _____.

What is Public Health?

Public health is concerned with protecting the health of entire populations. These populations can be as small as a *local neighborhood*, or as big as an *entire country*.

Focus is on entire population rather than individuals



Distinction between Public Health and Clinical Health Professions:

Public Health

- *Population*
- *Health*
- *Prevention*
- *Health Promotion*

Clinical Health

- Individual*
- Disease*
- Diagnosis*
- Treatment*



The Ten Essential Functions of Public Health

The Ten Essential Functions of Public Health

■ *Monitor* health status to identify community health problems.



■ *Diagnose and investigate* health problems and health hazards in the community.



■ *Evaluate* effectiveness, accessibility, and quality of personal and population-based health services.

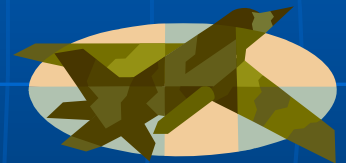


The Ten Essential Functions of Public Health

■ *Inform, educate, and empower* people about health issues.



■ *Mobilize* community partnerships to identify and solve health problems.



■ *Develop* policies and plans that support individual and community health efforts.



The Ten Essential Functions of Public Health

- *Assure* a competent public health and personal health care workforce.



- *Enforce* laws and regulations that protect health and ensure safety.

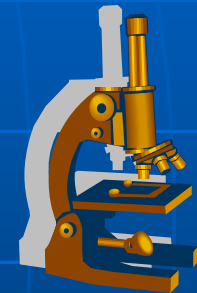


- *Link* people to needed personal health services and assure the provision of health care when otherwise unavailable.



The Ten Essential Functions of Public Health

- *Research* for new insights and innovative solutions to health problems.



Monitor health status to identify community health problems



Monitor health status to identify community health problems

Examples:

- **Death certificates**
- **Birth Certificates**
- **Immunization registries**
- **Cancer registries**
- **Surveillance**

Diagnose and investigate health problems and health hazards in the community



Diagnose and investigate health problems and health hazards in the community

Examples:

- **Disease outbreak investigations**
- **Child Fatality Review Boards**

Evaluate effectiveness, accessibility, and quality of personal and population-based health services



Evaluate effectiveness, accessibility, and quality of personal and population-based health services

Example:

- **Outcome evaluation and Economic Analysis**

**Inform, educate, and empower
people about health issues**

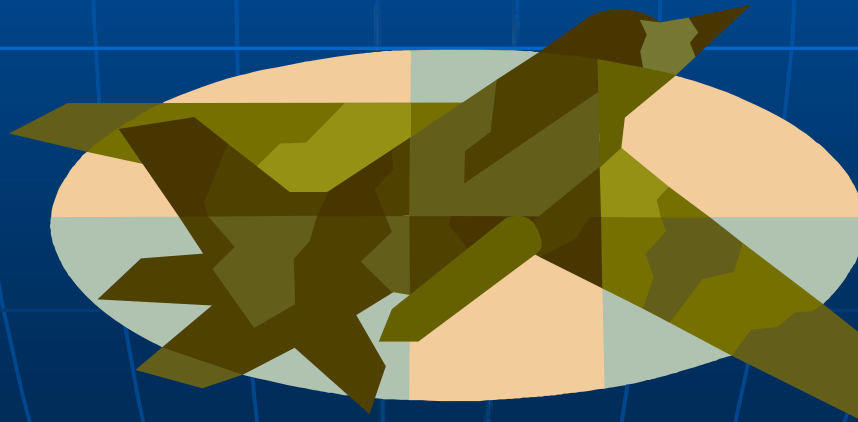


Inform, educate, and empower people about health issues

Examples:

- **Lead paint displays in hardware stores**
- **News releases on Rabies and West Nile Virus.**

**Mobilize community
partnerships to identify and
solve health problems**



Mobilize community partnerships to identify and solve health problems

Examples:

- **Smoke-free Coalitions in Lubbock and Amarillo**
- **Healthy Baby Coalition in Parmer County**
- **Advisory boards**

Develop policies and plans that support individual and community health efforts



Develop policies and plans that support individual and community health efforts

Examples:

- **Smoking bans**
- **Helmet laws**
- **Seat belt laws**
- **Restaurant inspection laws**

**Enforce laws and regulations
that protect health and ensure
safety**



Enforce laws and regulations that protect health and ensure safety

Example:

- **Food inspection certificates**
- **Enforcement of smoking regulations**

Link people to needed personal health services and assure the provision of health care when otherwise unavailable

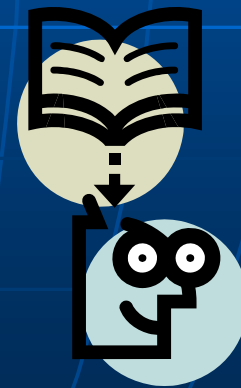
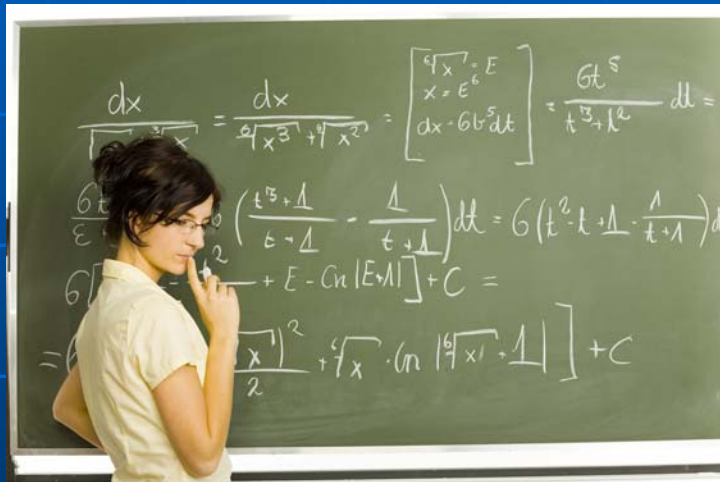


Link people to needed personal health services and assure the provision of health care when otherwise unavailable

Example:

- **Children's Health Insurance Program (CHIP)**
- **Federally Qualified Health Centers (FQHC)**
- **Children with Special Health Care Needs**

Assure a competent public health and personal health care work force

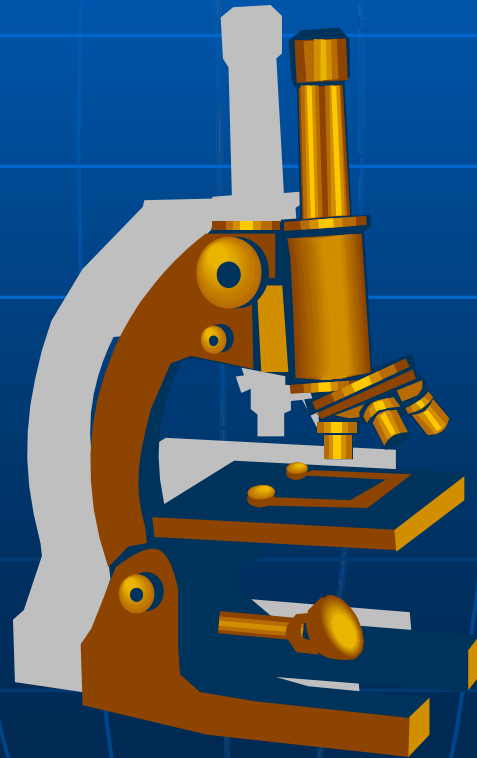


Assure a competent public health and personal health care work force

Examples:

- **Conferences**
- **Training programs**
- **Journals**
- **Schools of Public Health**
- **Satellite programs**
- **Certifications**

Research for new insights and innovative solutions to health problems



Research for new insights and innovative solutions to health problems

Example:

- **Needle exchange programs**

**Ten Great Public Health
Achievements-United States,
1900-1999**

Ten Great Public Health Achievements

- Vaccinations
- Motor Vehicle Safety
- Safer Workplaces
- Control of Infectious Disease
- Decline in Death from Heart Disease and Stroke

Ten Great Public Health Achievements

- Safer and Healthier Foods
- Healthier Mothers and Babies
- Family Planning
- Fluoridation of Drinking Water
- Recognition of Tobacco Use as a Health Hazard

“Vaccinations”

Vaccinations have resulted in the *eradication of smallpox*; *elimination of polio* in the Americas; and control of *measles, rubella, tetanus, diphtheria, Haemophilus influenza type B*, and other *infectious diseases* in the United States and other parts of the world.



“Motor Vehicle Safety”

Improvements in motor-vehicle safety have resulted from *engineering efforts* to make both vehicles and highways safer and from successful efforts to *change personal behavior* (e.g. use of *safety belts*, *child safety seats*, use of *motorcycle helmets* and *decreased drinking and driving*). These efforts have contributed to large reductions in motor-vehicle related deaths.

Ref: Bolen JR, Sleet DA, Chorba T, et al. Overview of efforts to prevent motor vehicle-related injury. In: Prevention of motor vehicle-related injuries: a compendium of articles from the MMWR, 1985-1996.



“Safer Workplaces”

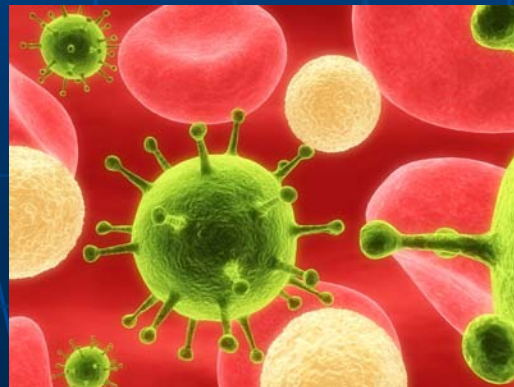
Work-related health problems, such as coal workers' pneumonia (black lung), and silicosis—common at the beginning of the century—have come under better control. *Severe injuries and deaths* related to *mining, manufacturing, construction, and transportation* also have *decreased*; since 1980, safer workplaces have resulted in a *reduction* of approximately *40%* in the rate of occupational injuries.

Ref: CDC. Fatal occupational injuries – United States, 1980 – 1994. MMWR 1998;47:297-302



“Control of Infectious Diseases”

Control of infectious diseases has resulted from *clean water and improved sanitation*. Infections such as *typhoid* and *cholera* transmitted by *contaminated water*, a major cause of illness and death early in the 20th century, have been *reduced* dramatically by *improved sanitation*. In addition, the discovery of *antimicrobial therapy* has been critical to successful public health efforts to *control* infections such as *tuberculosis* and *sexually transmitted diseases* (STDs).



“Decline in Deaths from Heart Disease and Stroke”

Decline in deaths from coronary heart disease and stroke have resulted from *risk-factor modification*, such as *smoking cessation* and *blood pressure control* coupled with improved *access to early detection* and *better treatment*. Since 1972, death rates for *coronary heart disease* have *decreased 51%*.

Ref: Anonymous. The sixth report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 1997;157:2413-46.



“Safer and Healthier Foods”

Since 1900, safer and healthier foods have resulted from *decreases in microbial contamination* and *increases in nutritional content*. Identifying essential micronutrients and establishing food-fortification programs have almost eliminated major nutritional deficiency diseases such as rickets, goiter, and pellagra in the United States



“Healthier Mothers and Babies”

Healthier mothers and babies have resulted from better *hygiene* and *nutrition*, availability of *antibiotics*, greater *access to health care*, and *technologic advances* in maternal and neonatal medicine. *Since 1900, infant mortality* has *decreased 90%* and *maternal mortality* has *decreased 99%*.



“Family Planning”

Access to family planning and contraceptive services has altered social and economic roles of women. *Family planning* has provided health benefits such as *smaller family size* and *longer interval between birth of children*; increased opportunities for *preconception counseling and screening*; *fewer* infant, child, and maternal deaths; and the use of *barrier contraceptives* to *prevent pregnancy* and *transmission of HIV and other STDs*.



“Fluoridation of Drinking Water”

Fluoridation of drinking water *began in 1945* and in *1999 reaches an estimated 144 million persons* in the United States. *Fluoridation* safely and inexpensively benefits both children and adults by effectively *preventing tooth decay*, regardless of socioeconomic status or access to care.

Fluoridation has played an important role in the *reductions in tooth decay* (40% - 70% in children) and of *tooth loss in adults* (40% - 60%).

Ref: Burt BA, Eklund SA. Dentistry, dental practice, and the community. Philadelphia, Pennsylvania: WB Saunders Company, 1999:204-20.



“Recognition of Tobacco Use as a Health Hazard”

Recognition of tobacco use as a health hazard and subsequent public health anti-smoking campaigns have resulted in changes in social norms to *prevent initiation of tobacco use, promote cessation use, and reduce exposure to environmental tobacco smoke*. Since the *1964 Surgeon General's report* on the health risks of smoking, the *prevalence of smoking among adults has decreased, and millions of smoking-related deaths have been prevented*.



Impact of Public Health

Impact of Public Health

The dramatic achievements of Public Health in the 20th century have improved our quality of life: *an increase in life expectancy*, world wide *reduction in infant and child mortality*, and the *elimination or reduction of many communicable diseases*.

Impact of Public Health

Since 1900, the average *life expectancy* for Americans has *increased* by about *30 years*.

Over *twenty-five of the 30* years can be attributed to *public health initiatives*.

Medical advances account for *less than 4* years.

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