

Introduction to Community Health

The Science of Nursing in the Community N5290

Jill Gallin, CPNP
Assistant Professor of Clinical Nursing
Columbia University School of Nursing

500 B.C.-A.D. 500

- Greeks
 - Exercise in physical games of strength
- Romans
 - Aqueducts
 - Sewer system
 - Refuse removal
 - hospital

A.D. 500- 1500

Spiritual era of public health

- Belief of disease from supernatural causes
- Spread of communicable diseases
 - Leprosy
 - Plague (half the population of London, France
1 in 10 survived)

Leprosy/ Hansen's Disease

- Skin and nerve damage
- Manifestations of disease
 - Skin lesions, nodules, plaques
 - Thickened dermis
 - Involvement of nasal mucosa, epistaxis
 - Necrosis of body parts
 - Sensory loss, numbness
 - Muscle weakness

CDC.gov (2004)

Bubonic Plague

- Usually result of a bite from an infected rodent flea, or by handling infected animals
- Does NOT usually spread person to person
- Symptoms
 - high fever
 - enlarged, tender lymph nodes, often in the groin
- Incubation period: 2-10 days
- Treatment: antibiotics

CDC.gov (2004)

Pneumonic Plague

- Result of sufficient dose of bacterial organisms is inhaled; a small percentage of bubonic cases develop pneumonic plague
- Can be spread person to person
- Incubation period: 2-3 days
- Bacillus viable one hour after attack

CDC.gov (2004)

Plague

- Signs and Symptoms
 - Acute fulminate pneumonia with high fever
 - dyspnea
 - cough w/ blood tinged or purulent sputum
 - cutaneous manifestations:
 - livid cyanosis
 - ecchymosis
 - necrosis of digits and nose

CDC.gov(2004)

Ring Around the Rosy

Ring around the rosy
(rose-colored purpuric lesions)
Pocket full of posies
(flowers carried to prevent the disease and cover the stench)
Ashes, Ashes
(death)
We all fall down
(we all die)

A.D. 1500-1700

Renaissance and Exploration

- Plague killed saints and sinners alike
- Environment played a role in disease

Eighteenth Century

- Overcrowded cities
- Poor water supply
- Poor sanitation
- Unsafe workplace

Eighteenth Century communicable disease

- Small pox
- Cholera
- Typhoid fever
- Yellow fever
- Average age of death: 29

Smallpox

- Orthopoxvirus family, (*variola major*)
- Can spread from person to person, aerosolized
- Signs and symptoms
 - flu-like beginning with high fever
 - maculopapular rash usually starts on face and hands then forearms and trunk and legs
 - become vesicular and pustular (embedded in dermis)
 - all lesions occur at same level of development
 - leave pitted scar after separation from skin

Cholera

- Infection of small intestine by *Vibrio cholerae*, ingesting contaminated food and water
- watery diarrhea
- Severe dehydration
 - Review symptoms

Typhoid

- Infection by salmonella typhi in contaminated food, water
- Diarrhea
- Systemic disease, high fever, weakness, fatigue, delirium
- Rash “rose spots” abdomen and chest

Yellow Fever

- Virus transmitted by mosquitoes
- Fever, jaundice, generally ill
- 15% progress to intoxication period
 - Kidney failure, hemorrhage, brain disfunction, seizures, coma, death

Eighteenth Century Advances

- 1790 George Washington ordered the first US census (done every ten years since)
- 1796 Edward Jenner demonstrated vaccine against small pox by injecting a boy with cowpox.
- 1798 Marine health center (will become US Public Health Service)
- 1799 Municipal boards of health in major cities

Nineteenth Century

- 1849 Dr. John Snow
- 1850 Lemuel Shattuck, Massachusetts
- 1862 Louis Pasteur’s germ theory disproved spontaneous generation
- 1876 Robert Koch: a particular microbe and no other causes a particular disease
- 1872 American Public Health Association founded
- 1890 pasteurization of milk
- 1895 septic tanks introduced

Nineteenth Century Nurses

- Florence Nightengale
 - Military at home and in the Crimean War
 - Research, lobbying, health care
- Lillian Wald
 - 1893 Henry Street Settlement
 - Home health
 - First school nurse
- Mary Seacole
 - Jamaican and other Caribbean populations
- Dorothea Dix
 - Mentally ill
- 1881 Clara Barton
 - American Red Cross

(2005) Allender & Spradley Community Health Nursing

Twentieth Century

- Malnutrition
 - Pellagra, rickets
- Communicable diseases
 - Influenza, pneumonia, tuberculosis, GI, polio
- Death associated with pregnancy & childbirth

Pellagra

- Vitamin deficiency, niacin or tryptophan
- Manifestations
- Skin sores
 - Diarrhea
 - Inflamed mucous membranes
 - Mental confusion

Rickets

- Vitamin D deficiency, phosphate
- Manifestation
 - Soft bones, bow legs, spinal deformities, fractures
 - Dental deformities
 - Bone pain

Poliomyelitis

- Poliovirus, person to person contact by infected secretions of nose or mouth, feces
- Worldwide epidemic 1840-1950's
- Subclinical (95% cases)
- Nonparalytic
- Paralytic
 - Brain and spinal cord involvement

Twentieth Century Advances

- 1906 Food and Drug Act
- 1910 Workman's compensation
- 1902 Rochester City Hospital School for Nurses
- 1918 Johns Hopkins School of Public Health
- Prohibition

Roosevelt & WWII

- 1935 Social Security Act
- 1937 National Cancer Institute
- Penicillin
- DDT
- CDC, Atlanta

Post war (1950's)

- Polio Vaccine
- Eisenhower's heart attack

1965

- Medicare
- Medicaid

1977

Eradication of smallpox

1970- present

The period of Health Promotion and Disease Prevention

- Diseases due to one's lifestyle or health behavior
- Global Health

Organizations in Community Health

Governmental Agencies

- International
- National
- State
- Local

International Agencies

- WHO, 1948, Geneva
 - Six Regional Offices: AFRO, AMRO/PAHO, EMRO, EURO, WPRO
 - Funded by country members “sliding scale”
 - 1980 eradication of smallpox
- UNICEF, 1946

National Agencies

- Department of Health and Human Services (HHS)
- Department of Agriculture
 - WIC
- Environmental Protection Agency
- Department of labor
 - OSHA
- Department of Commerce
 - Censuses

State Agencies

- Carry out core functions of public health
- Link between federal and local agencies
- Laboratory services
- Environmental health ie. Water and air pollution

Local Agencies

- City or County Health Department
- School Health Program

Quasi Governmental Health Organizations

- American Red Cross
 - Federal responsibilities
 - Voluntary contributions

Non-governmental Health Agencies

- Voluntary Agencies
 - MADD, SADD
- Professional Health Organizations
 - American Nursing Association
- Philanthropic Foundations
 - Rockefeller, Robert Wood Johnson, Kaiser, Kellogg, Doris Duke
- Service, Social and Religious organizations
 - Rotary