Keep your eye on the donut, not on the hole

Introduction to Community Health
The Science of Nursing in the Community
N5290
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Student Experience?

Brief History of Community Health
McKenzie et al, An Introduction to Community Health (2002)

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**

- Mycobacterium leprae
- 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

**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

**Leprosy**

**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
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

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

- Smallpox
- 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 dysfunction, 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
- 1875 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 Nightingale
  - 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

Twentieth Century

- Mass immigration and poverty
- 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
- Sub-clinical (95% cases)
- Non-paralytic
- Paralytic
  - Brain and spinal cord involvement

Twentieth Century Advances

- Results of immigrant conditions
  - 1906 Pure 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: pneumonia, RF, syphilis, strepp
- DDT: malaria
- CDC, Atlanta
Twentieth Century Advances

Post war (1950's)

- Polio Vaccine
- Eisenhower's heart attack

Aerial view of a crowd awaiting polio immunization, San Antonio, 1962

Twentieth Century Advances

1965

- Medicare
- Medicaid

Twentieth Century Advances

1980

Eradication of smallpox

Twentieth Century Advances

1970- present

The period of Health Promotion and Disease Prevention

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

In Summary

- What have we accomplished from a community and public health perspective?
- How & Where is our work cut out for us in the future?
Organizations in Community Health

International Agencies
- WHO, 1948, Geneva
  - Six Regional Offices: AFRO, AMRO/PAHO, EMRO, EURO, WPRO, SEARO
  - 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
  - Censes
State Agencies

- Carry out core functions of public health
- Link between federal and local agencies
- Laboratory services
- Environmental health (e.g., Water and air pollution)

Core Functions of Public Health

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
Questions?

Remember to sign up for community assessment presentations