The History of Health Care
Ancient Times

• Prevention of injury from predators

• Illness/disease caused by supernatural spirits
Ancient Times

• Herbs and plants were used as medicine examples:
  – Digitalis from foxglove plants
    • Then, leaves were chewed to strengthen & slow heart
    • Now, administered by pills, IV, or injections
Ancient Times

• Herbs and plants were used as medicine examples:
  – Quinine from bark of cinchona tree
    • Controls fever and muscle spasms
    • Used to treat malaria
Ancient Times

- Herbs and plants were used as medicine examples:
  - Belladonna and atropine from poisonous nightshade plant
    - relieves muscle spasms especially GI
  - Morphine from opium poppy
    - relieves severe pain
Egyptians

- Earliest to keep accurate health records
- Superstitious
- Called upon gods
- Identified certain diseases
- Pharaohs kept many specialists
Egyptians

- Priests were the doctors
  - Temples were places of worship, medical schools, and hospitals
  - Only the priests could read the medical knowledge from the god Thoth
Egyptians

• Magicians were also healers

• Believed demons caused disease

• Prescriptions were written on papyrus
Egyptians

• Embalming
  – Done by special priests (NOT the doctor priests)
  – Advanced the knowledge of anatomy
  – Strong antiseptics used to prevent decay
  – Gauze similar to today’s surgical gauze
Egyptians

- Research on mummies has revealed the existence of diseases
  - Arthritis
  - Kidney stones
  - Arteriosclerosis
Egyptians

• Some medical practices still used today
  – Enemas
  – Circumcision (4000 BC) preceded marriage
  – Closing wounds
  – Setting fractures
Egyptians

• Eye of Horus
  – 5000 years ago
  – Magic eye
  – amulet to guard against disease, suffering, and evil
  – History: Horus lost vision in attack by Seth; mother (Isis) called on Thoth for help; eye restored
  – Evolved into modern day $R_x$ sign
Jewish Medicine

• Avoided medical practice
• Concentrated on health rules concerning food, cleanliness, and quarantine
• Moses: pre-Hippocratic medical practice
  – banned quackery (God was the only physician)
  – enforced Day of Rest
Greek Medicine

- First to study causes of diseases
- Research helped eliminate superstitions
- Sanitary practices were associated with the spread of disease
Greek Medicine

• Hippocrates
  – no dissection, only observations
  – took careful notes of signs/symptoms of diseases
  – disease was not caused by supernatural forces

• Father of Medicine
  – wrote standards of ethics which is the basis for today’s medical ethics
Greek Medicine

- Aesculapius
  - staff and serpent symbol of medicine
  - temples built in his honor because the first true clinics and hospitals
Roman Medicine

• Learned from the Greeks and developed a sanitation system
  – Aqueducts and sewers
  – Public baths

• Beginning of public health
Roman Medicine

• First to organize medical care
• Army medicine
• Room in doctors’ house became first hospital
• Public hygiene
  – flood control
  – solid construction of homes
Dark Ages (400-800 A.D.) and Middle Ages (800-1400 A.D.)

• Medicine practiced only in convents and monasteries

• custodial care

• life and death in God’s hands
Dark Ages (400-800 A.D.) and Middle Ages (800-1400 A.D.)

- Terrible epidemics
  - Bubonic plague (Black Death)
  - Small pox
  - Diphtheria
  - Syphilis
  - Measles
  - Typhoid fever
  - Tuberculosis
Dark Ages (400 – 800 A.D.) and Middle Ages (800-1400 A. D.)

- Crusaders spread disease
- Cities became common
- Special officers to deal with sanitary problems
- Realization that diseases are contagious
- Quarantine laws passed
Renaissance Medicine
(1350-1650 A.D.)

• Universities and medical schools for research
• Dissection
• Book publishing
16th & 17th Century

- Leonardo da Vinci
  - anatomy of the body
- Anton van Leeuwenhoek (1676)
  - invented microscope
  - observed microorganisms
16th & 17th Century

- William Harvey
  - circulation of blood
- Gabriele Falloppian
  - discovered fallopian tube
- Bartholomew Eustachus
  - discovered the eustachian tube
- Some quackery
18th Century

- Edward Jenner 1796
  - smallpox vaccination

- Joseph Priestly
  - discovered oxygen
18th Century

• Benjamin Franklin
  – invented bifocals
  – found that colds could be passed from person to person

• Laennec
  – invented the stethoscope
19\textsuperscript{th} & 20\textsuperscript{th} Century

• Inez Semmelweiss
  – identified the cause of puerperal fever which led to the importance of hand washing

• Louis Pasteur (1860 –1895)
  – discovered that microorganisms cause disease (germ theory of communicable disease)
19th & 20th Century

- Joseph Lister
  - first doctor to use antiseptic during surgery
- Ernest von Bergman
  - developed asepsis
- Robert Koch
  - Father of Microbiology
  - identified germ causing TB
19\textsuperscript{th} & 20\textsuperscript{th} Century

- Wilhelm Roentgen
  - discovered X-rays
- Paul Ehrlick
  - discovered effect of medicine on disease causing microorganisms
- Anesthesia discovered
  - nitrous oxide, ether, chloroform
19\(^{\text{th}}\) & 20\(^{\text{th}}\) Century

- Alexander Fleming
  - discovered penicillin
- Jonas Salk
  - discovered that a killed polio virus would cause immunity to polio
- Alfred Sabin
  - discovered that a live virus provided more effective immunity
1900 to 1945

- Acute infectious diseases (diphtheria, TB, rheumatic fever)
- No antibiotics, DDT for mosquitoes, rest for TB, water sanitation to help stop spread of typhoid fever, diphtheria vaccination
- Hospitals were places to die
- Most doctors were general practitioners
1945 to 1975

- Immunization common
- Antibiotic cures
- Safer surgery
- Transplants
- Increased lifespan
- Chronic degenerative diseases
1945 to 1975

• new health hazards
  – obesity
  – neuroses
  – lung cancer
  – hypertension
• disintegrating families
• greatly increasing medical costs