

**Do you or have you ever know  
someone with a serious illness?**

**Please elaborate.**

# Disease

Communicable  
&  
Progressive

# Illness and disease

An abnormal condition of an organism or part as a consequence of infection, inherent weakness, or environmental stress that impairs normal physiological functioning.

Definition from Webster's Dictionary 1976

# How do we develop a disease or illness

- Three factors explain the majority of illnesses
  - Genetics ~20%
  - Environment ~20%
  - Lifestyle~50%
- The impact of these three is different with each person and each situation

# Genetics

- The biological basis of heredity of an organism consisting of the order in which chemical constituents are arranged in DNA and RNA
  - What?
  - You are parts of those that come before you
    - You have you mom's eyes dad's nose
    - You also will have parent's predisposition to health issues, etc...

# Genetics are King

- One of the single greatest factors in your future
  - Your relatives are a wealth of health information for you
  - Issues that come up in blood relatives need to be monitored
- Totally beyond your control
  - Did you choose your mom and dad?
  - If beyond control why spend time talking?

# Knowledge is power

- If you know what to expect then you can prepare yourself
- Just because mom has breast cancer doesn't mean you will
- Allows you utilize the amazing health care resources available
- Early detection can be the key to long life and avoiding early mortality

# Health history

- Every time you see a doctor they ask you to complete a health history form
  - Info like this is included ([http://classes.kumc.edu/son/nurs350/health\\_history.htm](http://classes.kumc.edu/son/nurs350/health_history.htm))
  - Your family history is a very important part of this form
  - You should know this information if you don't you soon will

# Assignment

- You will collect data for a family history
  - Name Hr Code top of paper
  - List all blood relatives down the left side of the paper (Mom, Dad, Brothers Sisters, Grandparents, Aunts and Uncles {that are your Mom and Dads siblings}) one per line
  - Tell me if they are living or deceased
  - If alive tell if they have a disease
  - If deceased tell what they died of and when
  - If you are adopted try for blood relative info if not available do your family
  - arthritis, diabetes, hypertension, stroke, heart disease, allergies, kidney problems, seizures, headaches, tuberculosis, anemia, cancer, mental illness, congenital defects, rheumatic fever, alcoholism,

# Environment

- The next greatest impact on your health is what you are exposed to everyday
  - Environmental hazards
  - Toxins
  - Pollutants
- What you do where you live matter so be careful what you come into contact with

# Common infectious diseases

- The common cold
  - 22 million days of school are lost each year
- Influenza
  - 5-20% of population each year, 36,000 die
- Pneumonia
- SARS
- Strep Throat
- Tuberculosis

# How to avoid

- Avoid close contact
- Stay home when sick
- Cover you mouth and nose when sneezing
- Clean your hands (68% of people don't wash after bathroom use)
- Avoid touching your eyes, nose, or mouth
- Practice healthy habits
  - Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food

# Your world

- Air quality
  - Carbon monoxide
  - Sulfur oxides
  - Nitrogen oxides
- Particulates
- Smog
- Smoke
- Radon
- Asbestos
- Water quality
  - Planet 2/3 water
  - 97% salt
  - 2% frozen
  - >1% fresh potable water
- PCBs, Dioxins, eutrophication, trihalomethanes, sediments, low level radiation, microorganisms(giardia lamblia)

All of these things can lead to a sudden disease or be the triggers for a chronic disease to manifest in you over time

# Lifestyle

- The single largest factor in our morbidity and mortality
  - You are in total control of this
  - Participation in risky health behaviors
    - THIS IS THE REASON YOU ARE SITTING HERE
    - Six major risk behaviors identified by CDC include:
      - Tobacco use, poor eating habits, alcohol and other drug risks, behaviors that result in injury (unintentional or intentional) physical inactivity, sexual behaviors resulting in HIV infection or other STI or unintended pregnancy
      - Education needs to be focused here
      - Stress control

So why is it that a nation that can all but erase the top three killers of 1900 has trends like we do now?

# What trends?

- Obesity rates increasing every year
  - No state with less than 20% of population obese
- Diabetes rates also increasing
  - Mirroring obesity rates
- Physical activity rates falling like a stone
  - 22% engaged in no PA in the past month

# Ca CVD Stroke all falling

- If the trends are so bad why do we see rates falling slightly in the top three killers over the past three years?
- Health care
  - System is very effective at treating sick
  - Drug development is amazing
  - Healthy older population

# Mountain Story

# Where should we spend our resources

- At the bottom to ensure that anyone who falls has the best chance for survival
- At the top to keep people from falling in the first place
- What is our system set up to do now
- How to change the thinking