Introduction

The purpose of this module is to give an overview of three major chronic diseases that you may encounter in your work.

We will cover Heart Disease, Asthma, and HIV/AIDS.

In the next module we will cover additional chronic diseases that you may encounter.
Goals and Objectives

Be able to identify the three major diseases discussed today and the major keywords associated with them.

Gain beginner’s knowledge of prevention and treatment goals for each of the diseases discussed.

Be able to act compassionately and without bias to people suffering from each of these diseases.
Heart Disease

America's Number One Killer of Men and Women

Image Obtained: http://www.medicinenet.com/coronary_artery_disease_screening_tests_cad/article.htm
Facts about Heart Disease

Heart Disease is the leading cause of death for both men and women

Heart disease may be preventable by making smart lifestyle changes

Amongst people experiencing homelessness, heart disease is a leading cause of mortality, and amongst people experiencing homelessness that are 25-44 years old, the risk is three times higher

Information Obtained: [http://www.cdc.gov/heartdisease/about.htm](http://www.cdc.gov/heartdisease/about.htm) and Jones et al. 2009
What is Heart Disease?

- Describes many types of heart conditions
- Can lead to heart attack, angina, heart failure, and arrhythmias
- Most common in the United States is coronary heart disease

Information Obtained: http://www.cdc.gov/heartdisease/about.htm
Risk Factors Amongst People Experiencing Homelessness

- Poverty leading to limited diet, lack of physical activity, lack of choices
- Lack of access to preventative care
- Psycho-social stressors associated with homelessness
- Risky Behaviors such as smoking, diabetes, and high blood pressure

Information Obtained: [http://www.cdc.gov/heartdisease/about.htm](http://www.cdc.gov/heartdisease/about.htm) and Jones et al 2009
Signs and Symptoms for Heart Attack

- Pain or discomfort in the jaw, neck, or back
- Feeling weak, light-headed, or faint
- Chest pain or discomfort
- Pain or discomfort in arms or shoulder
- Shortness of breath
- For females, fatigue is a major symptom of heart disease.
- Sweating

Treatment

- Medication
- Lifestyle Change
- Surgery

What is HIV?

- HIV is an abbreviation for Human Immunodeficiency Virus.
- HIV attacks healthy cells, in particular CD4 T-Cells.
- CD4 T-cells attack infections.
- When the body's supply of CD-4 T-cells is depleted, it weakens the immune system, allowing opportunistic infections/cancers to set up in a person.
- HIV can become AIDS (Acquired Immunodeficiency Syndrome.)
What is AIDS?

- AIDS is the final stage of HIV.
- It could take ten years or longer to progress to the AIDS stage of HIV infection.
- AIDS is diagnosed by a CD4 T-cell count of <200 cells/mm3.
- Most people infected with HIV, without treatment, will progress to the AIDS stage.
- There is currently no cure for HIV/AIDS.

HIV Prevention

Safer sexual practices (condoms etc...)

Antiretroviral prophylaxis (reduces perinatal transmission of HIV infection)

Risk reduction strategies in IV drug users (Needle exchange etc...)

HIV Transmission

- Blood
- Semen
- Vaginal Secretions
- Breast Milk

Testing

- Rapid Testing
- Pre-Test/Post-Test Counseling
- Confirmatory Test (Western Blot)
- HIV Viral Load Test

Treatment for HIV/AIDS

- Successful HIV Therapy reduces the bodies viral load and allows an individual to live a healthier and longer life.
- HIV/AIDS treatment includes medical, social, and mental support.
- Compliance with drug therapy helps reduce the risk of drug resistance.

History of Drug Treatment

1986
AZT Created

1992
First clinical trials of combination therapies

1996
HAART drug treatment emerges. Some drug cocktails are up to 60 pills a day.

2006
Atripla approved. First once daily, single pill treatment for HIV.

Information Obtained: http://www.fda.gov/ForConsumers/ByAudience/ForPatientAdvocates/HIVandAIDSActivities/ucm117935.htm
Special Populations

- Women experiencing homelessness
- Youth experiencing homelessness
- Sexual minorities
- Immigrants

Assistance Available

Ryan White Care Act  HOPWA  SSI/SSDI  Medicaid

Asthma
What is Asthma?

- Asthma is a disease that affects your lungs
- Asthma is a common disease in children, but can impact adults as well
- Asthma causes wheezing, breathlessness, chest tightness, and coughing
- Asthma does not go away, but can have no signs unless you are having an attack

Information Obtained: [http://www.cdc.gov/asthma/faqs.htm](http://www.cdc.gov/asthma/faqs.htm)
Image Obtained: [http://www.geronguide.com/gallery/var/albums/Asthma/asthma-silhouette-03.jpg?m=1292118997](http://www.geronguide.com/gallery/var/albums/Asthma/asthma-silhouette-03.jpg?m=1292118997)
Asthma Testing

Physical examination  Medical History Test  Spirometry

Information Obtained: http://www.cdc.gov/asthma/faqs.htm
Asthma Attack

- Swelling in the airways
- Build up of mucous restricts airways further
- Symptoms include wheezing, coughing, trouble breathing
- Asthma can be controlled

Information Obtained: http://www.cdc.gov/asthma/faqs.htm
Illustration of an Asthma Attack

Image Obtained: http://www.nhlbi.nih.gov/health/health-topics/images/asthma.jpg
Information Obtained: http://www.cdc.gov/asthma/faqs.htm
Know the Triggers!

TRIGGERS

inflammatory factors
- respiratory infections
- temperature change
- strong odors
- cold air
- stress and emotions
- gastric reflux

irritants
- exercise
- others
- medication
- food additives

allergens
- work
- pollutants
- combustible fumes
Treatment Options for Asthma

Quick Relief Asthma Treatments

Long-Term Control Asthma Treatments

Asthma Medications

Information Obtained: http://www.cdc.gov/asthma/faqs.htm
REVIEW
Review Questions

- Name one risk factor for heart disease.
- Name one trigger for asthma.
- What causes HIV?
- How can a person reduce their risk for heart disease?
- What groups are at increased risk for contracting HIV?
- What are the treatment options for A) Asthma, B) HIV/AIDS C) Heart Disease?
Any Questions?
In Closing...

"People Don’t Always Need Advice. Sometimes all they Really Need is A Hand to Hold, An Ear to Listen 'n A Heart to Understand Them"..
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