Sinclair Community College, Division of Allied Health Technologies

Health Promotion for Community Health Workers – Cardiovascular disease, stroke, and cancer

Class #12 Colorectal, skin, and prostate cancer
(date)

Course Objectives:
Identify health promotion and disease prevention behavioral strategies as a part of primary health care
Know risk factors and causes of heart disease, stroke, and cancer
Know the warning signs of heart attack, stroke, and cancer
Work with communities and community members to prevent heart disease, stroke, and reduce risk of cancer by encouraging healthy eating, physical activity, tobacco control, and stress reduction at the individual, family, and community level.
Show people how to take greater control over their health.

Class/Learning Objectives: By the end of this session, students will be able to:

1. Identify risk factors for colorectal, prostate, and skin cancer
2. List signs and symptoms of colorectal cancer
3. Identify pros and cons of screening for prostate cancer
4. Identify signs and symptoms of skin cancer
5. List ways to protect the skin from sun damage

Participants:
Instructor(s)
Students

Materials/Resources Needed:
Computer, screen, LCD projector for PowerPoint presentation

Handouts:

- Handout 12-1 Cancer deaths in men and women
- Handout 12-2 Colorectal Cancer Fact Sheet
- Handout 12-3: Questions to Ask Your Doctor About Colorectal Cancer Screening
- Handout 12-4: The Prostate
- Handout 12-5: The Skin
- Handout 12-6: The ABCD of Melanoma

Class Outline
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II. Lesson
- A. Colorectal cancer
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- B. Prostate cancer
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  1. Types of skin cancer
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  4. How to recognize skin cancer

III. Summary

Plan for the Class:

I. Overview

As noted, cancer is the second leading cause of death in the United States, after heart disease. Some cancers can be prevented or chances of developing them can be reduced with lifestyle changes, and for many cancers, early detection through screening and early treatment can significantly improve the chance of surviving cancer.

In this class we will discuss colorectal and skin cancer. We will also talk about prostate cancer so that you will have accurate information about screening to pass on to community members.

II. Lesson

A. Colorectal cancer

1. Colorectal cancer is any cancer that develops in the large intestine (colon) or rectum. The rectum is the passageway that connects the colon to the anus. Colorectal cancer is projected to be the 2nd most frequent cause of cancer deaths in men in 2006, and the 3rd most frequent cause of cancer deaths in women.

Handout 12-1: Cancer deaths in men and women

Colorectal cancer mainly affects men and women over the age of 50. The Centers for Disease Control and Prevention estimates that if everyone over the age of 50 had screening for colorectal cancer, one third of cancer deaths from this cause could be avoided. The 2000 National Health Interview Survey indicated that many people who are at risk for colorectal cancer are not getting screened as recommended.

Colon cancer usually grows slowly, and often begins as a **polyp** or raised clump of noncancerous cells on the lining of the large intestine. While most polyps do not go on to become cancerous, nearly all colon cancers start out as polyps.

2. Risk factors for colon cancer.
   The risk of developing colorectal cancer increases with age. Over 90% of cases occur in people aged 50 or older. Other risk factors that increase the risk of developing colon cancer are:

   - Inflammatory bowel disease
   - A personal or family history of colorectal cancer or colorectal polyps

   There are also lifestyle factors that may contribute to increased risk of colorectal cancer:

   - Lack of regular physical activity
   - Low fruit and vegetable intake
   - Low-fiber and high fat diet
   - Overweight and obesity
   - Alcohol consumption
   - Use of tobacco

   By now, these lifestyle risk factors should look familiar. Improving your diet by adding fruits and vegetables, decreasing intake of fatty foods, controlling your weight, getting regular physical activity, and avoiding tobacco and excess alcohol can reduce your risk of getting a number of chronic diseases. That's why helping people to make these changes really pays off. Not only is the risk of heart disease and stroke reduced, but so is the risk of developing many cancers, including colorectal cancer.

3. Symptoms of colon cancer
   Colorectal cancer may present no symptoms at first. If symptoms do develop, they may include:
   - Blood in the stool
   - A change in bowel habits: more frequent or less frequent
   - Stools that are narrower than usual
   - Frequent gas, pain, or indigestion
   - General, unexplained stomach discomfort
   - Unexplained weight loss
   - Chronic fatigue

   Of course, there are many other conditions that can cause the above symptoms. If a person is having any of these symptoms, he or she should talk with a doctor.

4. Screening for colorectal cancer

Handout 12-2 Colorectal Cancer Fact Sheet

There are several tests that screen for colorectal cancer, any or all of which may be recommended by your doctor:

1) Fecal occult blood (FOBT)
   Polyps and cancerous tissue in the colon may bleed, so this test looks for hidden (occult) blood in the stools. This test can be done at home. Using a kit provided by a health care provider, a person places samples of three consecutive bowel movements on test cards. The cards are then mailed to a doctor's office or lab where they are tested for blood. This test is recommended yearly for persons 50 years of age or older. If blood is found, a follow-up colonoscopy may be ordered.

2) Flexible sigmoidoscopy.
   This test is conducted at the doctor's office or in a clinic or hospital. In flexible sigmoidoscopy, a narrow, flexible, lighted tube is inserted through the anus and used to look at the rectum and the lower portion of the colon (the sigmoid colon). The person performing the exam may remove any polyps found and take samples of tissue for closer examination.

   This test requires that all surfaces of the colon and rectum are clearly visible, so it is necessary to clean the colon before the test by taking a strong laxative and/or an enema. This test is recommended every 5 years. If polyps are found, the doctor may order a follow-up colonoscopy.

3) Colonoscopy.
   In this test, the doctor will use a flexible, lighted tube to inspect the interior walls of the rectum and the entire colon. The test is similar to flexible sigmoidoscopy, except that the tube is longer and allows the doctor to see all of the colon. The doctor may remove polyps and take samples of tissue for closer examination. A colonoscopy may be used as a screening test or as a follow-up diagnostic test if the results of another screening test are positive.

   This test also requires that the colon be cleaned out before hand with a strong laxative and/or an enema. Light sedation is given during the test to make the patient more comfortable. This test is recommended every 10 years.

4) Double-contrast barium enema.
   This is another possible screening or diagnostic test that may be ordered by the doctor. A double-contrast barium enema uses a

series of X-rays of the colon and rectum which are taken after the patient is given an enema containing barium dye followed by an injection of air. This test allows the doctor to see the outline of the colon and identify any polyps or other abnormalities. This test is recommended every 5 years.

5. Barriers to screening for colorectal cancer.
Activity: Refer students to barriers to screening for breast and cervical cancer (Handout 11-7). Ask the class to identify those barriers that may also apply to screening for colorectal cancer. Then ask the class if they can think of additional barriers that may apply specifically to screening for colorectal cancer. Additional barriers may include:

- *Embarrassment*
- *Unwillingness to handle bowel movement (for FOBT)*
- *Fear of discomfort/pain during colonoscopy, sigmoidoscopy, or barium enema*
- *Fear of radiation (barium enema)*

Ask students to brainstorm or role-play ways to help community members overcome these barriers.

Distribute Handout 12-3: Questions to Ask Your Doctor About Colorectal Cancer Screening. Go over handout with students.

B. Prostate cancer

1. What is prostate cancer?

Handout 12-4: The Prostate

Prostate cancer occurs in the prostate, a walnut sized gland that is located in front of the rectum and just below the bladder. It is part of the male reproductive system and produces the fluid that carries sperm. The urethra, which carries urine out of the bladder, goes through the prostate gland. As men age, the prostate may grow larger, which may press on the urethra and make urine flow decrease.

As in other parts of the body, cancer cells may develop and grow uncontrollably in the prostate, and can spread to other parts of the body.

2. Prostate cancer statistics.

For the general population, a man in his lifetime has about a 1 in 6 chance of developing prostate cancer, and a 1 in 33 chance of dying of prostate cancer. Prostate cancer is estimated to be the third most common cause of cancer deaths in men in 2006. Nine percent of cancer deaths will be from this cause. (Handout 12-1).

As with most other cancers, the chances of developing prostate cancer increase with age. And as with many other cancers, African

American men have higher rates of getting and dying from prostate cancer than men of other racial or ethnic groups in the United States.

Some prostate cancers grow very quickly and threaten health by spreading outside the prostate, and can cause death. Other prostate cancers grow very slowly and never become a serious threat to health or affect how long a man lives. It is frequently difficult for a doctor to tell which course a particular cancer will take.

3. Who is at risk?
   While all men are at risk for prostate cancer, factors that increase risk are:
   - Family history – men with fathers or brothers who have had prostate cancer are at greater risk
   - Race – Prostate cancer is more common in African American men than in white, and more common in white men than in Hispanic, Asian, Pacific Islander or Native American men.

4. What about screening?
   There are two methods for screening for prostate cancer:
   1) The digital (finger) rectal examination (DRE). For this test, the doctor inserts a gloved and lubricated finger into the rectum which allows the doctor to feel the back portion of the prostate for size and any irregular or abnormally firm areas.
   2) The PSA test. This is a test that measures the level of prostate specific antigen (PSA) in the blood. PSA is produced by the prostate and released into the blood stream. A higher than normal PSA level may indicate that a prostate problem is present. However, many other factors can affect the PSA level.

   Currently, the U.S. Preventive Services Task Force (USPSTF) has concluded that there is not enough evidence to recommend either for or against routine screening for prostate cancer using DRE or PSA testing. While there is good evidence that these screening procedures can detect early prostate cancer, there is inconclusive evidence that early prostate cancer improves health outcomes.

   There are pros and cons to screening for prostate cancer. Men should be encouraged to talk with their doctors, who can provide them with balanced information about the benefits and drawbacks to screening. A man and his doctor should make the decision about screening for prostate cancer together.

C. Skin Cancer

1. Types of skin cancer
   Handout 12-5: The Skin
   Skin cancer affects the outer layer of the skin, called the **epidermis**. The epidermis is made up of flat, scale-like **squamous cells**. Under the squamous cells are round cells called **basal cells**. **Melanocytes**, or the cells that produce **melanin** which gives the skin its color, are found in the deepest part of the epidermis. The three types of skin cancer arise from these three types of cells:

   - Basal cell carcinoma is the most common type of skin cancer, accounting for about 75% of all skin cancers. It is a slow growing type of cancer that seldom invades other tissues or spreads to other parts of the body.
   - Squamous cell carcinoma, which accounts for about 20% of all skin cancers, also rarely spreads, is more likely to spread than basal cell carcinoma.
   - Melanoma, while the least common type, is the most serious of the skin cancers, and is the most likely to spread if not detected and treated early.

2. Who is at risk?
   Skin cancer is the most common type of cancer in the United States, and rates of melanoma have been increasing. Unprotected exposure to ultraviolet light (the sun and tanning lamps and beds) is the most important factor in the development of skin cancer. While skin cancer may not develop before age 50, exposure to ultraviolet light earlier in life can cause damage to the skin that increases the chance of developing skin cancer later.

   Anyone can develop skin cancer, but some people are at an increased risk. Factors that indicate that a person is at increased risk are:
   - Light skin color, hair color, or eye color
   - A family history of skin cancer
   - Previous skin cancer
   - A history of sunburns early in life
   - Chronic exposure to the sun
   - Having a large number of moles
   - A tendency to freckle, which indicates sun sensitivity and sun damage.

3. Protective measures.
   It is important that people become aware of the danger of unprotected exposure of the skin to ultraviolet light. Because more than half of one's lifetime exposure to the sun occurs before age 20, it is also important that parents and schools are aware of the need to protect children from the sun.

The following precautions are recommended:

1) Avoid exposure to the sun between 10 am and 4 pm, especially the around noon (11am – 1pm) when ultraviolet rays are the strongest
2) Wear protective clothing (long sleeves, pants, hat, sunglasses) in the sun
3) Use sunscreen that protects against both UV-A and UV-B rays with a sun protection factor (SPF) of 15 or greater
4) Avoid sunlamps and tanning beds

4. How to recognize skin cancer.
   A change on the skin is the most common warning sign of skin cancer, especially a new growth or a sore that doesn't heal. Changes in existing moles may also be an early warning sign of melanoma. A melanoma can also appear as a new mole.

   Handout 12-6: ABCD of Melanoma Warning Signs
   Distribute the handout and go over it with the class.

   Skin cancer is nearly 100% curable when caught early. Encourage people to regularly examine their skin. If they see any of the changes we've talked about, they should have them evaluated by a doctor.

III. Summary

Cancer is the second leading cause of death in the United States, but in many cases it can be prevented. Skin cancer, for instance, is largely preventable by protecting people from sun damage to the skin, starting at an early age. Other cancers are close to 100% curable when precancerous conditions are caught and treated, as with cervical and colorectal cancer. The chance for successful treatment and cure is greatly increased when cancer is identified early in its course. Community Health Workers should encourage community members to be aware of their risks for developing cancer, and help them to take advantage of screening options.

The elements of a healthy lifestyle that we will be talking about in more depth will help to lower the risks of both cancer and heart disease.

Resources:

Colorectal (colon) cancer. Center for Disease Control and Prevention. Department of Health and Human Services. Available at http://www.cdc.gov/CANCER/colorectal/basic_info/

Prostate Cancer Screening: A Decision Guide. Center for Disease Control and Prevention. Department of Health and Human Services. Available at http://www.cdc.gov/cancer/prostate/decisionguide/index.htm#2

Prostate Cancer Screening: A Decision Guide for African Americans. Center for Disease Control and Prevention. Department of Health and Human Services. Available at http://www.cdc.gov/cancer/prostate/aadecisionguide/index.htm

What You Need To Know About™ Skin Cancer. 1998. National Cancer Institute. NIH Publication No. 95-1564. Available at http://www.pueblo.gsa.gov/cic_text/health/skin-cancer/skin.htm#25

Glanz, K., Saraiya, M., and Wechsler, H. 2002. Guidelines for School Programs To Prevent Skin Cancer. MMWR Recommendations and Reports 51(RR04): 1-16. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5104a1.htm