Cancer Among American Indians and Alaska Natives

Cancer 101
Learning Module 1
Learning Objectives

At the completion of learning Module 1, you will be able to:

- Give two reasons why cancer is a growing concern in AI/AN communities
- Discuss two facts about how data contributes to our understanding about the cancer health concern for AI/AN
Learning Objectives

- Discuss two facts contributing to poor survival of AI/AN diagnosed with cancer
- Describe two factors likely to improve cancer survival for AI/AN
Cancer Background

- Cancer is a growing health concern among AI/AN due to:
  - Increased life expectancy
  - Lifestyle changes
Data Tell Us

- The incidence of cancer among American Indians is lower than all other ethnic groups including whites in the U.S.
Data Tell Us

- Cancer is the second leading cause of death for American Indians
- The leading cause of death for Alaska Natives
Data Tell Us

- Cancer rates, previously reported as being lower in AI/AN, are on the increase.
- Patterns for certain types of cancer vary among AI/AN when compared to whites and other ethnic groups in the U.S.
Limitations of the Data

- Racial misclassification
- Undercounting
- Coding errors
- Not enough numbers to form a conclusion
- Cannot be generalized to Peoples of other areas
Cancer Survival among AI/AN

- AI/AN have the lowest five-year relative survival rate of all U.S. populations.
Cancer Survival among AI/AN

Potential contributing factors:
- Late detection of cancer
- Genetic risk factors
- Poor compliance with recommended treatment
Cancer Survival among AI/AN

Potential contributing factors:
- Presence of other disease conditions
- Lack of timely access to state-of-the-art diagnostic treatment methods
Cancer Survival among AI/AN

Barriers to care:
- Lack of materials and programs that are culturally relevant
- Lack of AI/AN health providers
- Lack of education and training opportunities
Cancer Survival among AI/AN

Barriers to care:
- English as a second language
- Poverty
- Transportation
- Cultural beliefs surrounding cancer
Cancer Survival among AI/AN

Survival can be improved by:

- Increasing participation in regular screening and early detection services
- Reducing barriers to care
In Summary

You now have an understanding of:

- How data affects our understanding of cancer health concerns for AI/AN
- Facts that contribute to poor survival for AI/AN
- Factors that are likely to improve cancer survival for AI/AN
THANK YOU!

Cancer 101
Learning Module 1
What Is Cancer?
Learning Objectives

At the completion of learning Module 2, you will be able to:

- Describe the process through which normal cells become cancerous
- Describe the difference between benign and malignant tumors
- Describe two types of cancer and where they occur in the body
What Is Cancer?

- The term “cancer” refers to more than 100 different diseases that begin in the cells, the body’s basic unit of life.
Normal Tissue

dead cells shed from outer surface

underlying tissue

cell migration
dividing cells in basal layer
Beginning of Cancerous Growth

underlying tissue
Cancerous Tumor
What Is Cancer?

- Cancer develops when cells grow and form more cells without order or control.
- Under normal circumstances, new cell growth and old cell death are kept in balance.
- In cancer, this balance is disrupted.
Benign versus Malignant Tumors

- Tumors can be either benign or malignant.
- *Benign tumors* are not cancer, do not spread to other parts of the body and are usually not a threat to life.
Benign versus Malignant Tumors

- *Malignant tumors* are cancer.
- Cells in malignant tumors can grow without control and invade or damage other parts of the body.
- When cancer (malignant tumor) spreads from the original site to another part of the body it is called *metastasis*. 
Types of Cancer

- There are over 100 different types of cancer.
- Treatment decisions are based on knowing the type of cancer involved.
Types of Cancer

Cancers are divided into five main groups:
1. *Carcinomas* are cancers that begin with skin or tissues that line the internal organs.
2. *Sarcomas* are cancers that start in bone, fat, muscle, joint, nerve, blood vessel or deep skin tissues.
Types of Cancer

3. *Lymphomas* are cancers that start in lymph nodes or lymphoid tissues (tissues of the body’s immune system).

4. *Leukemias* are cancers of the white blood cells.

5. *Myelomas* are cancers that start in plasma cells found in the bone marrow.
Types of Cancer

- Doctors use different prefixes to help distinguish among the different types of cancer.
  For example:
  
  **Osteo** means bone.
  
  **Osteosarcoma** means a sarcoma arising in the bone.
In Summary

You now have an understanding of:

- The meaning of the word cancer
- The difference between benign and malignant tumors
- The process by which cancer spreads
- The different types of cancer
Cancer Screening and Early Detection

Cancer 101
Learning Module 3
Learning Objectives

At the completion of learning Module 3, you will be able to:

- Describe the importance of early detection
- Describe two screening methods used in the detection of cancer
Learning Objectives

- Describe two barriers associated with practicing early detection
- Describe three symptoms of cancer
The goal of early detection is to discover and stop a cancerous tumor before it grows and spreads (*metastasizes*).
Cancer Screening and Prevention

- Checking for cancer in a person who does not have any symptoms of the disease is called *screening*. 
Cancer Screening and Prevention

- Medical screening tests are effective tools of early detection of cancer.
- A few types of cancer have specific tests that aid in detecting cancer.
Screening tests for common types of cancer:
- Breast - screening mammogram
- Cervix - Pap test
- Colon - fecal occult blood test, colonoscopy, sigmoidoscopy, digital rectal exam
- Prostate - digital rectal exam
Cancer Screening and Early Detection

- Awareness of body changes may help detect early signs of cancer.
- Examples of changes to note:
  - Breast tissue
  - Testicular tissue
Barriers to Cancer Screening and Early Detection

- There are many barriers that affect one’s decision to participate in cancer screening and early detection.
Barriers to Cancer Screening and Early Detection

- Examples of barriers include:
  - Fear of cancer
  - Lack of knowledge
  - Modesty
  - Communication
  - Illness beliefs
There are many different symptoms known to be associated with certain types of cancers.

A symptom is a sign that something is not right in the body and does NOT always indicate cancer.

Possible Symptoms of Cancer
Pay Attention to Your Body If There Is . . .

- Change in bowel or bladder habits
- A sore that does not heal
- Unusual bleeding or discharge
- Thickenings, lump, or swelling in the breast or any other part of the body
- Indigestion or difficulty swallowing
- Recent change in wart or mole
- Nagging cough or hoarseness
Pay Attention to Your Body If There Are . . .

- Unexplained symptoms such as:
  - Progressive weight loss
  - Fever
  - Fatigue
  - Pain
In Summary

You now have an understanding of:

- The components of early detection
- Importance of recognizing the barriers to practicing early detection
- The symptoms of cancer
THANK YOU!

Cancer 101
Learning Module 3
Cancer Diagnosis and Staging

Cancer 101
Learning Module 4
Learning Objectives

At the completion of learning Module 4, you will be able to:

- Describe what is meant by the term biopsy
- Describe how tumors may behave differently from one another
Learning Objectives

- Give two examples of the stages of cancer and their meaning
- Give two reasons why staging is important
Diagnosis of Cancer

- To diagnose the presence of cancer, a doctor must remove a piece of affected tissue (*biopsy*) and look at it under a microscope.
Diagnosis of Cancer

- A biopsy is the surgical removal of a small piece of tissue for microscopic examination.
Diagnosis of Cancer

Types of biopsies include:
- Endoscopy
- Needle Biopsy
- Surgical Biopsy
Diagnosis of Cancer

- Microscopic examination of the tissue also helps the doctor determine the “aggressiveness” or the behavior of the cancer.
Diagnosis of Cancer

- *Well differentiated* tumor cells look and function similarly to normal cells of the same type.
- *Poorly differentiated* or undifferentiated tumor cells look abnormal and disorganized.
Diagnosis of Cancer

- Once the cancer diagnosis has been made, more testing may be necessary to determine the primary site (where the cancer started).
- The primary site helps determine the type of treatment of the cancer.
Staging of Cancer

- *Staging* is the process that tells the doctor how far the cancer has spread in the body.
Staging of Cancer

The four common stages of cancer are:

- **In situ**: Early cancer that has not spread to neighboring tissues.
- **Local**: Cancer is found only in the organ where it started to grow.
Staging of Cancer

- **Regional**: Cancer has spread to the surrounding tissues or lymph nodes.
- **Distant**: Cancer has spread to other organs and systems of the body.
Staging of Cancer

The *staging* of cancer is important because of the following reasons:
- Determines the extent of disease
- Treatment is determined by stage
- Determines patient’s prognosis
In Summary

You now have an understanding of:

- The way in which cancer is diagnosed
- How the extent or stage of cancer is determined
THANK YOU!

Cancer 101
Learning Module 4
Cancer Risk Factors and Risk Reduction

Cancer 101
Learning Module 5
Learning Objectives

At the completion of learning Module 5, you will be able to:

- Describe the meaning of risk factors
- Describe two risk factors that influence the development of cancer
- Describe two ways to take personal action to reduce cancer risk
What is a risk factor?

- *Risk factors* are conditions that increase the chance that cancer might occur.
- The conditions that influence the development of cancer are related to heredity, lifestyle, and the environment.
What is a risk factor?

- **Hereditity**: This refers to genes that are passed from parent to child.
- **Lifestyle**: Some types of cancer are related to how we live.
- **Environment**: Some types of cancer are related to where we work and live.
What is a risk factor?

- Approximately one third of all cancers diagnosed in 2001 were related to nutrition, physical activity and other lifestyle factors.
Risk Reduction

Ways to reduce the cancer burden include:
- Education
- Personal action to reduce cancer risk
- Routine screening for early detection.
Risk Reduction

Personal action to reduce the risk of cancer includes the following:

- Maintain a healthy weight
- Get at least 30 minutes of physical activity daily.
- Don’t smoke
Risk Reduction

- Eat a healthy diet
- Limit alcohol consumption
- Protect yourself from the sun
- Protect yourself and your partner from sexually transmitted diseases
In Summary

You now have an understanding of:

- Cancer risk factors
- How to reduce risks associated with cancer
THANK YOU!
Basics of Cancer Treatment
Learning Objectives

At the completion of learning Module 6, you will be able to:

○ Discuss the Western and traditional approach to cancer treatment

○ Discuss the difference between local and systemic treatment for cancer
Learning Objectives

- Describe the reason side effects occur with cancer treatment
- Describe at least two side effects that can occur as a result of cancer treatment
How We Become Well Again

- For many AI/AN diagnosed with cancer, treatment often involves a blend of both Western and traditional medicine.
- Both methods are necessary to fight against cancer.
How We Become Well Again

Characteristics of the *Western* medical approach to cancer treatment include:

- Science based.
- Focuses on the physical aspect of disease.
- A team of special doctors work together to develop a treatment plan to fit each person’s situation.
How We Become Well Again

Characteristics of traditional medicine include:

- A traditional healer establishes a long-term relationship with the person and their family.
- Treatment plan focus is on the “whole person”.

Characteristics of traditional medicine include:
How We Become Well Again

- Goal of treatment is centered on restoring harmony and balance.
- AI/AN are most likely to benefit when treatment is focused on a holistic approach that involves a blending of both *Western* and *traditional medicine*. 
Treatment for cancer depends on several factors including:
- Type of cancer
- The size, location and stage of the disease
- General health of the individual
How We Become Well Again

The treatment plan may include the following:
- Surgery
- Chemotherapy
- Radiation Therapy
- Hormone Therapy
- Biologic Therapy
- Clinical Trial
How We Become Well Again

Treatment for cancer can be either local or systemic.

- *Local treatment* affect cancer cells in the tumor and the area near it.
- *Systemic treatment* travels through the bloodstream reaching cancer cells all over the body.
How We Become Well Again

- The *side effects* of cancer treatment result from damage to healthy cells and tissues in addition to the cancer cells.
- *Side effects* depend mainly on the type and extent of the treatment.
Treatment Methods

The following list describes common methods used in the treatment of cancer in Western medicine:

- **Surgery**: Removal of the cancerous tumor and possibly the surrounding tissue and lymph nodes near the tumor.
Treatment Methods

- **Chemotherapy**: The use of drugs to kill cancer cells.
- **Biological Therapy (Immunotherapy)**: Helps the body’s natural ability (immune system) to fight disease or protects the body from some of the side effects of cancer treatment.
Treatment Methods

- **Radiation Therapy**: The use of high-energy rays to kill cancer cells or stop them from growing and dividing.
- **Hormone Therapy**: Used against certain cancers that depend on hormones for their growth.
Treatment Methods

- **Clinical Trials**: Research studies that evaluate promising new therapies and answer scientific questions.
In Summary

You now have an understanding of:

- Common cancer treatments and their potential side effects
THANK YOU!

Cancer 101
Learning Module 6
Support for Patients and Caregivers
Learning Objectives

At the completion of learning Module 7, you will be able to:

- Describe two emotions a cancer patient might experience after diagnosis
- Describe two ways to provide support to a patient facing cancer
Learning Objectives

- Describe two ways that make caregiving less stressful
- Give two examples of how cancer survivors can bring balance back to their lives
Coping with the Cancer Diagnosis - How to be Supportive

*Coping* with feelings after the diagnosis:

- First few weeks after diagnosis are often the most emotional.
- Feelings may change day to day or even hour to hour.
Coping with the Cancer Diagnosis - How to be Supportive

Coping:

- A person may experience denial, anger, stress, and anxiety.
- Most people are able to move on and look forward to healing.
- Remember! More people are surviving and living long lives after diagnosis.
Coping with the Cancer Diagnosis - How to be Supportive

*Tips* for helping someone face a cancer diagnosis include:

- Be the friend or loved one you’ve always been.
- Be there like you always have been.
- Don’t be afraid to share feelings.
- Offer to help with child care.
Coping with the Cancer Diagnosis - How to be Supportive

- Offer to give caretakers a break.
- Be available to talk.
- Be comfortable with silence.
- Be hopeful!
- Be positive!
Coping with the Cancer Diagnosis - How to be Supportive

*No one needs to face cancer alone!*

- Emotional, spiritual, and practical support can be offered by family members, friends, other cancer patients, traditional healers, health providers, and community members.
Coping with the Cancer Diagnosis - How to be Supportive

- Cancer patients who receive support are often better able to cope with their illness.
- Those who give support benefit by being able to doing something meaningful.
Coping with the Cancer Diagnosis - How to be Supportive

Suggestions to make caregiving less stressful:
- Offer relief from daily responsibilities.
- Don’t try to do everything at once.
- Know your limits.
- Attend support groups.
Life after Cancer Treatment –
On the Path to Recovery

- The greatest challenge a person may face in their lifetime is facing a cancer diagnosis and surviving cancer treatment.
- Attaining and maintaining balance is an important part of recovery.
Life after Cancer Treatment –
On the Path to Recovery

Suggestions for bringing a sense of
*balance* back into life:

- Get back into a routine.
- Return to work.
- Choose activities that have a purpose.
- Spend time with family and friends.
Life after Cancer Treatment – On the Path to Recovery

**Balance:**

- Get adequate rest.
- Share stories of survival.
In Summary

You now have an understanding of:

- The psychological and social issues affecting cancer patients and their caregivers
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THANK YOU!

Cancer 101
Learning Module 7