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# Cancer Among American Indians and Alaska Natives

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## Target Audience:

- *Community members*
- *Staff of Indian health programs, including Community Health Representatives*

## Contents of Learning Module:

- *Instructor's Guide with Pre/Post Self-Assessment*
- *PowerPoint presentation*
- *Glossary*
- *References*

## Length:

- *Introduction of session/module overview (:05)*
- *Pre self-assessment (:07)*
- *Presentation of module including interactive activity (:30)*
- *Post self-assessment (:05)*
- *Closing (:03)*

## Goals

In this session, participants will gain an understanding of the growing health concern of cancer among American Indians and Alaska Natives (AI/AN).

## Objectives

At the completion of Learning Module 1, participants will be able to demonstrate the following:

### Section 1

Give two reasons why cancer is a growing health concern in today's AI/AN communities.

### Section 2

Discuss two facts regarding how data contributes to our understanding about the cancer health concern for AI/AN.

### Section 3

Discuss two facts that contribute to poor survival for AI/AN diagnosed with cancer. Describe two factors that are likely to improve cancer survival rates for AI/AN.

## Measures of Objective Accomplishment

The presenter will administer a pre self-assessment and a post self-assessment to measure participants' knowledge of the module's objectives. The pre self-assessment measures existing knowledge and the post self-assessment measures what was gained through the learning module.

## **NOTE**

- Each major learning point is clearly identified by **boldface** type throughout the guide and emphasized in the PowerPoint presentation.
- See the glossary (at the end of the module) for words that are in ***bold italics*** throughout the module.

## Pre/Post Self-Assessment

### Cancer Among American Indians and Alaska Natives

**Do you agree (A), disagree (D), with these statements, or are you not sure (NS)? Circle Choice A, D, or NS.**

1.	A      D      NS	Life expectancy and lifestyles are two factors that may be associated with the increase of cancer among American Indians and Alaska Natives.
2.	A      D      NS	Cancer is the <u>second</u> leading cause of death among American Indians, and the <u>leading</u> cause of death for Alaska Natives.
3.	A      D      NS	Current data for American Indians and Alaska Natives provides an accurate picture of the cancer problem in Indian country.
4.	A      D      NS	Cancer survival can be improved by participating in screening and early detection.
5.	A      D      NS	Access to health care that is culturally appropriate will reduce barriers to care.

## Section 1

# Cancer Background

For many years, the disease cancer was not common among American Indians and Alaska Natives (AI/AN). It was thought perhaps that AI/AN had a natural *immunity* to this disease. Over time, however, researchers have discovered evidence suggesting that cancer did exist among AI/AN as far back as the turn of century (Burhansstipanov, 1997). **Today, cancer has become more common among AI/AN and is now a growing concern. Many of the factors that contribute to the development of cancer in AI/AN people have yet to be determined, however, changes in life expectancy and lifestyle are thought to play a significant role.**

*Increased life expectancy places American Indians and Alaska Natives at greater risk for cancer.*



Life expectancy for AI/AN has increased dramatically over the last several decades from less than 50 years in the mid-1940's, to about 71 years (Joe, 2001; Burhansstipanov & Dresser, 1994). Much of this increase can be credited to advances in the treatment of infectious diseases and a decline in infant and maternal *mortality* (Michielutte, Sharp, Dignan & Blinson, 1994). These reductions in mortality are largely due to improvements in public health measures such as immunization programs, improvements in sanitation, drinking water and access to primary medical care. **Consequently, many individuals who would have died at an earlier age are now living to be much older. Given that most cancer occurs in individuals over the age of 45 years, the increase of life expectancy for AI/AN places them at increased risk for cancer.**



**As AI/AN live longer, the type of lifestyle they lead may influence their risk for developing cancer.** In the past, traditional lifestyles included many practices that are thought to reduce one’s risk for developing cancer. These included daily exercise, a diet rich in fruits, vegetables, and other natural foods, and reserving tobacco for ceremonial use rather than habitual use. In today’s world, lifestyles for many AI/AN have been made more convenient by advances in technology. Although many of these advances have led to improvements in the ease of performance of day-to-day activities, they have also led to a decrease in energy expenditures. Thus, today’s lifestyles have become

more sedentary. Highly processed and convenience food items have replaced a diet once rich in natural foods. An increase in personal use of tobacco that is chewed or smoked has led to increased

*Lifestyle choices are linked to the rise in cancer rates of American Indians and Alaska Natives.*

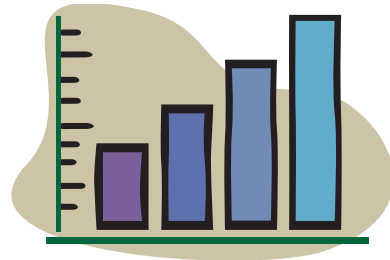
rates of cancer in AI/AN (Burhansstipanov, 1997; Cobb, 1996). **Research is ongoing and early findings suggest lifestyles that include attention to proper diet (rich in natural foods), limited alcohol use, daily exercise, and the avoidance of known *carcinogens* may reduce one’s risk for developing cancer.**

**Although researchers have identified increased life expectancy and changing lifestyles as two factors that have influenced the rise in cancer rates among AI/AN, there are other contributing factors to consider. These factors include *heredity*, environmental exposures, *viruses* and *bacteria*.** They will be discussed in more detail in Learning Module 5: Cancer Risk Factors and Risk Reduction.

Section 2

## What's Known and not Known About Cancer among American Indians and Alaska Natives

In general, much work still needs to be done in order to understand the issue of cancer among AI/AN. Because there is no single database that accurately depicts cancer-related data for AI/AN, multiple databases must be used to gather and assess this information. Typically, national databases such as the U.S. Census population counts, National Center for Health Statistics mortality data, Surveillance, Epidemiology, and End Results program, and the Indian Health Service are used as sources for cancer information. Although *statistical data* from these sources is limited, we do know the following:



- Cancer is the second leading cause of death for American Indians over the age of 45 (Department of Health and Human Services, IHS, 1997).
- Cancer is now the leading cause of death for Alaska Natives (Ehram, Lanier, Holck, Sandidge, 2001).
- Cancer rates, which were previously reported as being lower in American Indian and Alaska Natives, have been shown to be increasing (Hampton, 1993; Cobb, 1996; Ehram et.al, 2001).

**We also know that patterns for certain types of cancers vary among American Indians and Alaska Natives.** For example, American Indians have an increased *incidence* of cancer of the kidney, liver, and gallbladder, and Alaska Natives have excess incidence rates for colon, rectum, stomach, kidney, lung, and cervix uteri when compared to non-Hispanic whites (Mahoney & Michalek, 1999).



**The top ten most common types of cancer occurring among American Indian and Alaska Natives include the following: lung/bronchus, colon, breast (female), prostate, stomach, pancreas, liver, kidney, leukemia, and ovary** (Department of Health and Human Services, IHS, 1997).

**What we don't know about cancer relates to the "limitations" of existing cancer data among American Indians and Alaska Natives.** The term "limitations" refers to how the accuracy of the current data may be influenced by any of the following points:

- Racial misclassification
- Undercounting (**due in large part to racial misclassification**)
- Coding errors (which affects all data and is not specific to AI/AN)
- Inclusion of insufficient numbers of the racial group to formulate conclusions
- Data collection in selected geographic regions that cannot be generalized to Peoples of other areas.

**Despite the fact that the statistical data listed previously in this discussion are limited to some degree in their accuracy, findings show that AI/AN throughout the U.S. have very different cancer mortality patterns (Burhansstipanov & Dresser, 1994). To understand more about these cancer patterns and develop effective risk reduction and control programs, accurate data on the health status of AI/AN must be documented.**



### Section 3

## Cancer Survival among American Indians and Alaska Natives

As we become more familiar with the health concern of cancer among American Indians and Alaska Natives, the issue of survivability grows in importance. **The data tells us that, overall, AI/AN have the lowest five-year *relative survival rate* for all cancer sites combined of any racial group in the U.S. (Department of Health and Human Services, PHS, NIH, NCI, 1992). Factors that contribute to the low survival of AI/AN are not well understood.** Although more investigation needs to be done, the following factors have been identified as potentially influencing survival:

- Late detection of cancer
- ***Genetic risk factors***
- Poor compliance with recommended treatment
- Presence of other disease conditions
- Lack of timely access to state-of-the-art diagnostic or treatment methods
- Barriers to care such as lack of materials and programs about cancer risk and risk reduction that are culturally relevant, lack of AI/AN health providers, lack of accessible educational and training opportunities, English as a second language, poverty, transportation, and cultural beliefs surrounding cancer.

(Burhansstipanov, 1997)

**We know that cancer survival can be improved by increasing participation in screening and early detection services.** Early diagnosis of cancer improves the chances that treatment will be more effective and survival will be lengthened. This is particularly true for cancer of the cervix, colon and rectum, and breast. For other types of cancer such as those cancers that affect the lung, no reliable test currently exists, and prevention is the key. The critical role of prevention in lung cancer must be emphasized. The majority of lung cancers are preventable by simply not smoking.



**Reducing barriers to care is also likely to improve survival rates by increasing the number of individuals participating in screening and early detection activities.** Providing access to health care that is culturally appropriate is critical to improving outcomes. Understanding how belief and value systems influence AI/AN perceptions of health and illness is an important aspect of the health care process. For example, understanding the importance of honoring modesty during screening exams may increase the likelihood that individuals, particularly elders, will continue to participate in these programs. Although more research is needed to improve survival rates for AI/AN diagnosed with cancer, encouraging participation in screening and early detection, and reducing barriers to care may have a positive influence on outcomes.



## Glossary of Terms

**Bacteria** These are one-celled organisms visible only through a microscope. There are many varieties, only some of which cause disease: most are non-disease causing; and many are useful.

**Carcinogen** This is any type of cancer causing agent.

**Genetic Risk Factors** Those risk factors that are transmitted at birth through genes (the basic units of heredity).

**Heredity** The transmission of traits from parents to offspring.

**Immunity** The resistance of the body to the effects of a harmful agent.

**Incidence** The number of newly diagnosed cases during a specific time period.

**Mortality** The number of deaths during a specific time period.

**Relative Survival Rate** Compares the observed survival for a set of cancer patients to that observed for a group of normal persons of a similar age, race, and sex distribution. It is important to note that relative survival does not provide an estimate of the percent of the cancer population alive five years after diagnosis.

**Statistical data** The calculation of figures that provides information about the numbers, patterns, similarities and differences among things/individuals.

**Virus** An infectious agent that requires a susceptible place to grow and reproduce.

For more detailed information about the glossary terms, please refer to the Dictionary on [www.cancer.gov](http://www.cancer.gov) OR call the Cancer Information Service at 1-800-4-CANCER (1-800-422-6237)

## References

- Burhansstipanov, L. (1997). Cancer among elder Native Americans. Native Elder Health Care Resource Center.
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## Please Note—



- ✓ Use the Curriculum/Training Evaluation located in the Evaluation section, to get valuable participant feedback.



- ✓ The Health Change Checklist, located in the Evaluation section, directs the participants new attitudes towards new actions and may be used as a take home exercise.



- ✓ Please Complete the “Trainer Activity Report” in the Evaluation section of the curriculum. Your feedback allows us to track usage of the curriculum for reporting purposes and ensures you receive any updates to the material.

We look forward to hearing from you.  
Thank You.

