



FACT SHEET: CANCER PREVENTION AND CONTROL AMONG NORTHERN PLAINS AMERICAN INDIANS

The term “cancer” refers to more than 100 different diseases that begin in the cells, the body’s basic unit of life. Cancer is a disease that develops when cells grow (divide) and form more cells without control or order. Under normal circumstances new cell growth and old cell growth are kept in balance. In cancer, this balance is disrupted.¹

PREVENTION

HEALTHY LIFESTYLE

Fifty percent of all cancers can be prevented by things you can do. The following recommendations will help lower your and your family’s risk for cancer, as well as risk factors for heart disease, stroke, and diabetes.²

Don’t smoke: tobacco use (cigarettes, pipes, cigars, and chewing tobacco) is linked to cancers of the lung, throat, pancreas, kidney, bladder, cervix, prostate, colon, and rectum.

Get at least 30 minutes of physical activity every day: lowers the risk of colon cancer and may lower risk of breast cancer.

Eat a healthy diet: five fruits and vegetables a day will help lower the risk of cancers of the prostate, breast, lung, colon, rectum, stomach, and pancreas.

Maintain a healthy weight: lowers the risk of cancers of the colon, rectum, uterus, and breast

Drink less than one alcoholic drink a day: lowers the risk of cancers of the breast, colon, rectum, mouth, throat, and esophagus.

Protect yourself and your partner(s) from sexually transmitted diseases (STD): some STDs are linked to cancers of the cervix, vagina, anus, and liver.

Protect yourself from the sun: light is linked to skin cancer.

SCREENING

Breast, cervical, colorectal, prostate, and skin screening will also lower cancer risks for you and your family. For the following cancers American Cancer Society³ recommends:

Breast: yearly mammograms starting at age 40 years and continuing for as long as a woman is in good health. Clinical breast exams (CBE) every 3 years for women in their 20s and 30s and every year for women 40 years and over.

Cervical: all women should begin regular Papanicolaou (Pap) testing about 3 years after having vaginal intercourse, but no later than 21 years old.

Colorectal: recommended for all persons aged 50 years and older with annual fecal occult blood testing, or flexible sigmoidoscopy every 5 years, or both every 5 years, or colonoscopy every 10 years, or double-contrast barium every 5 years.

Prostate: beginning at age 50 years, both prostate-specific antigen blood test and digital rectal examination should be offered annually.

Skin: as part of routine cancer-related checkup, have your health professional check your skin carefully.

Healthy changes & early cancer screening can prevent cancer morbidity (illness)

MORTALITY

For the US population under the age of 85 years, cancer has surpassed heart disease as the number one killer of Americans.⁷ Of all deaths in the US, nearly one-quarter are attributed to cancer⁸ and 563,700 cancer deaths were estimated to have occurred in 2004.⁹ For the Aberdeen Area Indian Health Service (AAIHS), 1996-98, heart disease is still the leading cause of death, accounting for 21% of all deaths, cancer is the second leading cause of death accounting for 15% of all deaths.¹⁰

Table 1. Healthy People (HP) 2010 cancer mortality rate goals compared to the Aberdeen Area Indian Health Service (AAIHS), 1996-98, and U.S. All Races, 1997, mortality rates per 100,000, for “All Sites” and seven site-specific cancers.⁴⁻⁵ With the exception of breast and prostate cancer, “All Sites” and the other site-specific cancer rates are higher for AAIHS than HP 2010 Goals.

Cancer Site	HP2010 Goal	AAIHS 1996-1998	U.S. All Races 1997
All Sites	159.9	168.8	125.6
Breast (F)	22.3	21.9	19.4
Cervix Uteri (F)	2.0	4.5	2.5
Colon/ Rectum	13.9	21.4	12.1
Lung/Bronchus	44.9	55.1	37.4
Melanoma	2.5	NI	NI
Prostate (M)	28.8	13.6	13.9
Oropharyngeal	2.7	NI	NI

Female; (F) ; Male: (M) ; Not Included: (NI)

Cancer Mortality among American Indians and Alaska Natives: Regional Differences, 1994-1998, includes data for Northern Plains American Indians (NPAI); NPAI includes American Indian populations in Aberdeen, Bemidji, and Billings Area IHS states. Data demonstrates that among NPAI, both sexes, lung cancer mortality (78.5) ranked first, Colon/Rectum (27.1) ranked second and ill-defined cancers ranked third (21.9). Gender differences in NPAI cancer

Mortality continued

mortality are marked. The top five site-specific cancer mortality rates for NPAI men are lung (106.4), prostate (35.2), colon/rectum (33.3), ill-defined (23), pancreas (12.4), and kidney (12.4). For NPAI women, the top five cancer mortality rates are lung (57.6), colon/rectum (22.5), ill-defined (21.7), breast (20.6), and ovary (7.2).

Within Aberdeen Area, Iowa's "All Sites" cancer mortality rate is the closest to the HP 2010 goal. (See Table 2.) Only Iowa's breast cancer rate is below the HP goal. All four states have cervix uteri cancer mortality rates approximately five times the HP goal. Nebraska's colon/rectum cancer rate is closest to the HP goal. Only Iowa's lung/ bronchus cancer is below the HP goal. All states have melanoma cancer rates below the HP goal. Only Iowa has a oropharyngeal cancer rate below the HP goal. Both Iowa and Nebraska have prostate cancer below the HP goal.

INCIDENCE

Incidence is the number of new cases in one year. The rates below are averaged over the number of years.

Table 2. American Indian Cancer Mortality Rates, by state 1990- 2002.⁶

Cancer Site (HP 2010)	Iowa	Nebraska	North Dakota	South Dakota
All Sites (159.9)	162.5	256.3	303.8	276
Breast (F) (22.3)	7.7	23.0	30.0	24.4
Cervix Uteri (F) (2.0)	9.8	9.7	10.4	10.4
Corpus and Uterus	3.7	9.4	5.5	5.8
Colon/ Rectum (13.9)	28	22.5	36.5	26.5
Kidney/ Renal Pelvis	8.1	9.5	9.2	6.1
Liver/ Intrahepatic bile duct	4.9	8.6	10.1	7.5
Lung/ Bronchus (44.9)	37.0	71.8	94.3	87.9
Melanoma (2.5)	0	1.9	1.1	0
Oropharyngeal (2.7)	0	4.2	8.2	5.7
Ovary (F)	2.7	14.8	8.8	7.5
Pancreas	13.8	13.1	5.4	10.9
Prostate (M) (28.8)	18.5	20.2	33.3	46.6
Stomach	15.8	8.9	13.9	9.8
Urinary Bladder	1.9	1.9	5.2	1.9

Table 3. American Indian Cancer Cases and Incidence by State¹¹ shows count and rate variation. Only AIs in North Dakota have an "All Sites" cancer incidence rate higher than U.S. All Races. AIs in Iowa have a breast cancer incidence rate higher than U.S. All Races rate. AIs in all states, except North Dakota, have cervical cancer incidence rates higher than the U.S. All Races rate. The Colon/ Rectum cancer rates are higher among North Dakota AIs than among the U.S. All Races. All four states have AI lung cancer rates higher than the U.S. All Races. Oropharyngeal cancer among AI is higher in Iowa and Nebraska than for the U.S. All Races. Only North Dakota AIs have prostate cancer rates higher than the U.S. All Races Rate.

Cancer Site	U.S All Races 1997-2002	Iowa 1992-2002		Nebraska 1990-2002		North Dakota 1997-2002		South Dakota 2001-2002	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
All Sites	470.8	168	468.2	314	326.5	447	522.9	277	432.6
Breast (F)	134.6	30	162	34	57.8	75	128.9	37	93.4
Cervix Uteri (F)	9.1	14	28.2	8	12.1	6	7.9	10	20.8
Colon/ Rectum	53.3	14	40.1	40	43.0	53	70.2	30	50.1
Corpus and Uterus	24.4	<5	8.4	7	11.9	0	0	12	28.4
Gallbladder	1.2	-	-	<5	4.5	<5	2.6	0	0
Kidney/ Renal Pelvis	11.5	12	25.1	23	22.6	10	13.4	12	18.7
Liver/ Intrahepatic bile duct	6.1	<5 (M)	12 (M)	9	9.1	9	10.6	<5	2.8
Lung/ Bronchus	64.6	20	63.8	40	43.4	85	114.5	42	70.3
Melanoma	17.1	<5	1.8	5	4.6	<5	3.6	<5	6.1
Oropharyngeal	10.6	5	23.6	13	13.3	<5	2.4	5	8.1
Ovary (F)	13.9	<5	6.7	8	15.4	0	0	0	0
Pancreas	11.1	<5	10.1	7	9.7	<5	2.8	<5	3.4
Prostate (M)	173.3	14	93.1	39	109.3	54	188.5	43	128.1
Stomach	8.8	5	19.3	8	9.3	10	14.1	7	12.0
Urinary Bladder	20.3	7	23.8	<5	3.9	9	11.1	7	11.7

Data for this fact sheet were provided by special reports from Carmell Barth (ND), Roberta Cahill (ACS), Mynna Kightlinger (SD), Marlys Knell (ND), Carol Kosary (NCI), Charles Lynch (IA), and Bryan Rettig (NE). Their assistance is greatly appreciated!

¹ Guthrie, T., (with Northwest Portland Area Indian Health Board's Northwest Tribal Cancer Control Project). (2004). A cancer education and training program for American Indians and Alaskan Natives. [Available online: www.npaihb.org] ² www.hsph.harvard.edu/cancer ³ www.cancer.org . ⁴How Cancer Rose to the Top of the Charts By Jane E. Brody, New York Times, February 1, 2005 © 2004 The New York Times Company. Reprinted by Permission. Copyright 2005 © American Cancer Society, Inc. ⁵Cancer Facts & Figures 2004, American Cancer Society, 2004. ⁶American Cancer Society Facts and Figures, 2003. Estimates exclude more than a million cases of basal and squamous cell skin cancers and in situ cancers, except urinary bladder, that were diagnosed in 2003. Lung cancer rates include bronchus cancer. State death totals were rounded to nearest 100. ⁷Indian Health Service, DHHS. Regional Differences in Indian Health 2000-2001. May 2003. Rockville, MD. ⁸ www.healthypeople.gov/HP2010 cancer rate goals are per 100,000 population. ⁹Indian Health Service, DHHS. Regional Differences in Indian Health 2000-2001. May 2003. Rockville, MD. Age-adjusted to 1940 US standard population. Aberdeen Area Indian Health Service includes North Dakota, South Dakota, Iowa and Nebraska. Aberdeen IHS user population FY 2001: 114,083. ¹⁰Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Public-Use With State, Total U.S. for Expanded Races/Hispanics (1990-2002), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2005. Underlying mortality data provided by NCHS (www.cdc.gov/nchs). Age-adjusted to 2000 US standard population ¹¹Reported by Nebraska, North Dakota, South Dakota, and Iowa Cancer registries. Rates per 100,000 American Indian population and age-adjusted to the year 2000 standard population. Because American Indian populations are relatively small, data from numerous years were aggregated to increase the reliability of the data, average incidence rates are presented. The availability of accurate incidence data varies by state, therefore incidence data are aggregated for as many years each state's cancer registry staff determined data to be complete and accurate. Cell sizes with counts less than 5 are denoted as "<5". Low counts result in broad confidence intervals and data that should be interpreted carefully.