

Table 1.
Leading Causes of Death (Percentages) for American Indian Women in U.S.^{a,b}

Year of Death:	1981– 1983	1984– 1986	1987– 1989	1990– 1992	1993– 1995	1996– 1998
	%	%	%	%	%	%
Diseases of heart	23.6	24.8	24.2	23.3	22.8	22.4
All malignant cancers	14.4	15.7	16.9	18.7	17.5	18.5
Accidents and adverse effects	10.5	10.3	9.1	8.2	8.4	8.8
Cerebrovascular diseases	6.3	6.2	5.7	5.9	5.9	6.2
Chronic liver disease and cirrhosis	5.5	4.8	4.8	4.6	4.5	4.1
Diabetes mellitus	4.7	4.9	5.8	6.2	7.3	7.5
All other causes	35.0	33.3	33.6	33.2	33.6	32.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

^a American Indian statistics derived from American Indian and Alaska Native deaths in all states except Alaska.

^b Cause of death information from National Center for Health Statistics categorized according to the site groups of the Surveillance, Epidemiology and End Results (SEER) Program of the National Cancer Institute.

Source: SEER (August 2000 submission).

Table 2.
Selected Cancer Incidence, Mortality, and Cause-Specific Survival Rates for Women by Race/Ethnicity

	<u>Incidence, 1992–1998^a</u>		<u>Mortality, 1992–1998^a</u>		<u>Survival, 1988–1997^b</u>	
	American Indian ^c	White	American Indian ^d	White	American Indian ^c (%)	White (%)
All Cancers	140.1 ^e	354.4	87.7 ^e	138.0	49.6 ^e	62.2
Digestive System	32.4 ^e	57.0	21.5 ^e	28.6	28.0 ^e	47.9
Esophagus	0.6 ^e	1.6	0.7 ^e	1.3	0.0	17.9
Stomach	4.5	4.0	3.1 ^e	2.4	14.1 ^{e,f}	29.8
Colon and rectum	13.5 ^e	36.3	8.2 ^e	13.9	47.7 ^{e,f}	62.4
Liver and intrahepatic bile duct	4.3 ^e	2.0	3.0 ^e	2.1	30.1 ^{c,d}	49.4
Gallbladder	2.7 ^e	1.3	1.3 ^e	0.8	24.1 ^f	26.8
Pancreas	3.9 ^e	7.5	4.1 ^e	7.0	11.9 ^f	5.8
Lung and bronchus	12.4 ^e	43.6	20.1 ^e	34.6	12.8	19.7
Melanomas of the skin	1.2 ^e	12.3	0.4 ^e	1.7	80.0 ^g	91.5
Breast	36.2 ^e	115.5	12.0 ^e	24.3	72.6 ^c	86.0
Cervix	6.2 ^e	8.1	2.9 ^e	2.4	70.1 ^d	77.7
Corpus and uterus, NOS	8.5 ^e	22.5	2.1 ^e	3.1	75.4 ^f	86.4
Ovary	7.4 ^e	15.4	4.0 ^e	7.8	55.2 ^f	52.6
Urinary bladder	1.1 ^e	7.9	0.8 ^e	1.7	59.5 ^h	78.9
Non-Hodgkins lymphoma	4.2 ^e	13.0	2.8 ^e	5.8	53.9 ^f	60.1
Multiple myeloma	2.2 ^e	3.4	1.9 ^e	2.3	29.3 ^{g,b}	31.9
Leukemias	2.9 ^e	8.4	3.0 ^e	4.8	30.1 ^{e,f}	49.4

^a Incidence and mortality rates are per 100,000 women, 1992–1998, age-adjusted to 1970 U.S. standard population.

^b Survival is presented as a 5-year cause-specific survival percentage for cases diagnosed 1988–1997.

^c Incidence and survival data include data on American Indian and Alaska Native women in 11 SEER areas (Alaska excluded).

^d Mortality data include data on American Indian and Alaska Native women in all states except Alaska.

^e Rate or percentage is significantly different from White rate or percentage ($p < .05$).

^f The survival rate is subject to large variability (standard error is 5% to 9.99%).

^g The survival rate is subject to large variability (standard error is 10% to 14.99%).

^h The survival rate is subject to large variability (standard error is 15% or greater).

Note: Cause of death information from National Center for Health Statistics is categorized according to site groups of the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute. NOS = not otherwise specified.

Source: SEER (August 2000 submission).

Table 3.
Incidence and Mortality Trends Among Women for Selected Primary Cancers, 1992–1998

	Incidence, 1992–1998 ^a		Mortality, 1992–1998 ^b	
	American Indian EAPC	White EAPC	American Indian EAPC	White EAPC
All Cancers	-0.8	0.3	0.9	-0.8 ^c
Digestive System	1.7	-0.2	2.1	-1.1 ^c
Esophagus	NA	-0.7	16.5 ^{c,d}	0.9
Stomach	7.4	-2.0 ^c	3.8	-2.7 ^c
Colon and Rectum	1.8	-0.4	2.4	-1.9 ^c
Liver and intrahepatic bile duct	3.8	5.5 ^c	4.8	2.2 ^c
Gallbladder	-13.5	-4.3 ^c	-6.8	-2.4 ^c
Pancreas	15.7	-0.7 ^c	2.6	-0.3
Lung and bronchus	-5.9	-0.1	1.4	0.8 ^c
Melanoma of the skin	NA	2.9 ^c	-1.4	-0.3
Breast	-5.3	1.1 ^c	0.1	-2.7 ^c
Cervix	2.2	-2.5 ^c	-4.7	-1.8 ^c
Corpus and uterus, NOS	7.0	0.2	-5.3 ^c	-0.5
Ovary	-2.7	-1.2 ^c	-2.4	-1.1 ^c
Urinary bladder	NA	-1.3 ^c	1.1	0.0
Non-Hodgkin's lymphoma	1.1	0.7	5.5	0.9
Multiple myeloma	NA	-1.6	4.0	-0.3
Leukemias	-4.1	-0.6	0.1	-0.8 ^c

^a Incidence data include data on American Indian and Alaska Native women in 11 Surveillance, Epidemiology, and End Results (SEER) Program areas (Alaska excluded).

^b Mortality data include data on American Indian and Alaska Native women in all states except Alaska.

^c Estimated annual percent change (EAPC) from 1992 through 1998 is significantly different from zero ($p < .05$).

^d EAPC for American Indian women is significantly different from the EAPC for White women ($p < .05$).

Note: NA = not available; EAPC was not calculated due to zero cancers in at least one year.

Source: SEER (August 2000 submission).

Table 4.
Leading Causes of American Indian Cancer Mortality by Indian Health Service Geographical Region, Sex, and Site, 1984–1988

<u>Pacific Coast (Portland/California) Area</u>			
<u>Females (N = 120)</u>		<u>Males (N = 165)</u>	
Lung	32%	Lung	53%
Breast	21%	Colon/rectum	18%
Colon/rectum	19%	Prostate	14%
Ovary	16%	Stomach	10%
Ill-defined/unknown	13%	Ill-defined/unknown	5%
<u>Southwestern (Albuquerque/Phoenix/Tucson/Navajo) Area</u>			
<u>Females (N = 221)</u>		<u>Males (N = 268)</u>	
Ill-defined/unknown	32%	Ill-defined/unknown	26%
Breast	26%	Lung	24%
Stomach	16%	Prostate	21%
Cervix	14%	Stomach	17%
Gallbladder	13%	Pancreas	12%
<u>Northern Plains (Aberdeen/Billings) Area</u>			
<u>Females (N = 170)</u>		<u>Males (N = 197)</u>	
Lung	44%	Lung	50%
Breast	18%	Prostate	20%
Ill-defined/unknown	16%	Colon/rectum	11%
Cervix	16%	Stomach	6%
Pancreas	6%	Pancreas	6%
		Ill-defined/unknown	6%
<u>Southern Plains (Oklahoma) Area</u>			
<u>Females (N = 259)</u>		<u>Males (N = 332)</u>	
Breast	22%	Lung	50%
Colon/rectum	22%	Colon/rectum	15%
Lung	21%	Prostate	14%
Ill-defined/unknown	18%	Ill-defined/unknown	12%
Ovary	8%	Pancreas	8%
Pancreas	8%		
<u>Great Lakes (Bemidji) Area</u>			
<u>Females (N = 63)</u>		<u>Males (N = 85)</u>	
Lung	38%	Lung	48%
Breast	21%	Colon/rectum	18%
Ill-defined/unknown	11%	Prostate	15%
Colon/rectum	11%	Ill-defined/unknown	11%
Stomach	9%	Oral	7%
Pancreas	9%		
<u>Southwestern (Nashville) Area</u>			
<u>Females (N = 50)</u>		<u>Males (N = 49)</u>	
Breast	30%	Lung	49%
Lung	30%	Prostate	12%
Colon/rectum	14%	Colon/rectum	12%
Cervix	14%	Ill-defined/unknown	10%
Ill-defined/unknown	12%	Pancreas	8%
		Kidney	8%

Source: Valway et al., 1992.

^a Based on age-adjusted rates, using the 1970 U.S. standard population.

^b Significantly different from zero ($p < .05$).

Key: PC = percent change (over the time interval)

EAPC = estimated annual-percent change (over the time interval)

NA = Not available. Source: SEER 3.0, Public Use CD-ROM, August 1999 Submission.

Table 5.
Selected Cancer Incidence Rates^a Among American Indian Women Admitted to Indian Health Service and Contract Hospitals, 1982–1987, and All U.S. Women, 1982–1986

	Breast	Cervix	Corpus and Uterus, NOS	Ovary	Lung and Bronchus	Colon and Rectum	All Sites
Apache	26.9	30.1	5.6	15.0	10.8	8.1	179.7
Navajo	25.8	24.7	4.9	11.0	4.0	9.2	172.4
Sioux	53.5	28.3	11.5	11.8	32.5	18.5	266.8
Tohono O'odham/Pima	18.3	23.3	31.9	10.7	13.7	6.1	222.1
Indian Health Service, all areas	32.7	20.2	7.2	10.4	18.2	21.2	188.0
U.S., all races—females ^b	97.0	8.8	22.6 ^c	13.5	34.4	32.4/22.4 ^d	323.4

^a Average annual rates per 100,000 female years at risk; age-adjusted to the 1970 U.S. female standard population.

^b From Surveillance, Epidemiology, and End Results (SEER) Program, 1982–1986.

^c Corpus uteri, not otherwise specified (NOS).

^d Rates for colon and rectum cancers, respectively.

Source: Adapted from Indian Health

Service, 1990a, pp. 37, 45.

Table 6.
Cancer Mortality Rates for American Indian and Alaska Native Women in Selected Indian Health Service (IHS) Geographical Areas, 1992–1998^a

States in Region	IHS Region	Breast	Cervix	Corpus and Uterus, NOS	Ovary	Lung and Bronchus	Colon and Rectum	All Cancers
ID,OR,WA=	Portland	20.7	1.8	2.0	3.9	32.4	12.1	119.3
IA,ND,NE,SD=	Aberdeen	21.3	8.6	4.4	7.4	52.1	23.8	201.0
MT,WY=	Billings	19.1	2.3	4.0	5.2	59.7	13.4	172.3
AZ,CO,NM,NV,UT=	Southwest	9.3	3.6	3.0	5.8	7.9	7.2	89.2
KS,OK,TX=	Oklahoma City	13.0	3.1	1.7	3.8	17.8	7.6	79.3
Total U.S.								
American Indian and Alaska Native		12.0	2.9	2.1	4.0	20.1	8.2	87.7
White		24.3	2.4	3.1	7.8	34.6	13.9	138.0

^a Rates are per 100,000 and age-adjusted to the 1970 U.S. standard.

Note: Cause of death information from National Center for Health Statistics is categorized according to site groups of the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute ((August 2000 submission). NOS = not otherwise specified.

Source: Adapted from Indian Health Service, 1990a, p. 45.

Table 7.
Provider-Reported Reasons for Not Performing Routine Cervical and Breast Cancer Screening^a on American Indian Women, 1989

	N	Always (%)	Often (%)	Sometimes (%)	Seldom (%)
Inadequate clinical space	250	12	28	31	29
Lack of time in busy schedule	253	43	36	18	3
Forgetfulness/inadequate reminders	251	8	27	43	22
Low cost/benefit	248	5	17	23	56
Risks of complications	248	0	4	16	79
Lack of provider interest in prevention	250	9	12	35	44
Questions about value of screening	248	2	7	31	60

^a Based on a survey of 294 Indian Health Service (IHS) providers.
 Source: Adapted from Indian Health Service, 1990a, p. 105.

Table 8.
Stomach and Biliary Tract Cancer Incidence by American Indian Tribe, 1969–1977

	Male ^a	Female ^a
Zuni	41	1
Other Pueblo	18	17
Navajo	26	12
Tohono O’odham	38	6
Sioux	17	21
Alaska Natives	22	8

^a Age-adjusted rates per 100,000 population.

Sources: Justice, 1988; Morris et al., 1978.