

TABLE 1
Incidence Rates and Rate Ratios of the Top 25 Cancers for American Indian/Alaska Natives compared with non-Hispanic White Females by Indian Health Service Region, CHSDA Counties, United States, Both Sexes, 1999–2004

Type of cancer	All regions combined					Northern Plains					Alaska					Southern Plains								
	AI/AN		NHW		AI/AN:NHW	AI/AN		NHW		AI/AN:NHW	AI/AN		NHW		AI/AN:NHW	AI/AN		NHW		AI/AN:NHW				
	Rank	Rate	Rank	Rate	RR	95% CI	Rank	Rate	Rank	Rate	RR	95% CI	Rank	Rate	Rank	Rate	RR	95% CI	Rank	Rate	Rank	Rate	RR	95% CI
All sites/types		368.4		476.0	0.77 ^b	0.76–0.78		538.1		464.8	1.16 ^b	1.12–1.20		511.0		486.8	1.05	1.00–1.11		492.6		461.2	1.07 ^b	1.04–1.10
Prostate	1	105.6	1	154.4	0.68 ^b	0.66–0.71	1	174.6	1	162.2	1.08	0.97–1.19	4	78.3	1	180.7	0.43 ^b	0.35–0.53	1	156.7	1	146.5	1.07	0.99–1.15
Female breast	2	85.3	2	134.4	0.63 ^b	0.61–0.66	2	115.9	2	130.3	0.89 ^b	0.81–0.97	1	134.9	2	136.5	0.99	0.87–1.12	2	115.7	2	129.7	0.89 ^b	0.83–0.96
Lung and bronchus	3	57.4	3	70.3	0.82 ^b	0.79–0.85	3	104.3	3	65.5	1.59 ^b	1.47–1.72	3	93.2	3	71.6	1.30 ^b	1.14–1.48	3	87.1	3	82.2	1.06	1.00–1.13
Colon and rectum	4	46.3	4	50.8	0.91 ^b	0.87–0.95	4	72.5	4	52.3	1.39 ^b	1.26–1.52	2	102.6	4	50.6	2.03 ^b	1.78–2.31	4	60.2	4	51.8	1.16 ^b	1.08–1.25
Kidney and renal pelvis	5	18.2	10	12.6	1.45 ^b	1.36–1.54	5	24.1	10	12.9	1.88 ^b	1.61–2.17	6	19.6	10	13.5	1.46 ^b	1.10–1.91	6	21.5	10	13.0	1.66 ^b	1.46–1.87
Corpus/uterus, NOS	6	18.1	6	23.6	0.77 ^b	0.71–0.83	6	19.5	5	26.6	0.74 ^b	0.58–0.92	9	13.6	6	22.8	0.60 ^b	0.39–0.88	5	22.4	6	19.4	1.16	0.98–1.36
Non-Hodgkin Lymphoma	7	14.1	8	19.4	0.73 ^b	0.67–0.78	7	18.5	7	19.4	0.95	0.79–1.14	11	11.7	7	21.6	0.54 ^b	0.39–0.74	7	20.9	7	18.5	1.13	0.99–1.28
Ovary	8	11.5	9	14.4	0.80 ^b	0.72–0.88	14	11.0	9	14.0	0.79	0.57–1.04	16	7.3	9	13.5	0.54 ^b	0.29–0.92	8	14.7	9	14.0	1.05	0.86–1.28
Stomach	9	10.9	18	5.8	1.88 ^b	1.72–2.05	11	13.2	18	5.6	2.35 ^b	1.86–2.91	5	24.5	20	5.3	4.61 ^b	3.34–6.38	15	9.0	18	5.1	1.77 ^b	1.44–2.15
Pancreas	10	9.9	13	10.8	0.91 ^b	0.83–1.00	13	11.1	13	10.2	1.10	0.86–1.38	8	16.0	13	10.2	1.57 ^b	1.13–2.15	13	11.0	13	10.6	1.04	0.87–1.24
Urinary bladder	11	9.6	5	23.9	0.40 ^b	0.37–0.44	8	14.8	6	22.9	0.65 ^b	0.51–0.80	10	13.5	5	26.9	0.50 ^b	0.35–0.69	9	14.6	5	19.7	0.74 ^b	0.64–0.86
Cervix uteri	12	9.4	15	7.4	1.28 ^b	1.15–1.42	12	12.5	15	7.4	1.69 ^b	1.29–2.18	14	8.5	17	6.2	1.37	0.77–2.29	10	14.1	14	9.2	1.54 ^b	1.25–1.87
Leukemia	13	9.4	11	12.6	0.75 ^b	0.69–0.81	10	13.5	11	12.7	1.06	0.85–1.30	17	6.9	11	13.1	0.53 ^b	0.35–0.78	11	13.2	11	12.5	1.06	0.91–1.23
Liver/ihbd	14	9.0	21	4.3	2.11 ^b	1.92–2.32	15	10.9	22	3.7	2.97 ^b	2.29–3.78	12	11.0	19	5.5	2.02 ^b	1.33–2.99	16	8.1	22	4.3	1.88 ^b	1.51–2.31
Oral cavity and pharynx	15	8.5	12	11.0	0.77 ^b	0.70–0.84	9	13.9	12	10.5	1.32 ^b	1.06–1.62	7	16.3	12	10.6	1.53 ^b	1.12–2.05	12	11.4	12	11.7	0.98	0.83–1.15
Myeloma	16	6.2	20	4.9	1.27 ^b	1.14–1.42	18	7.2	20	5.1	1.41 ^b	1.04–1.85	20	5.2	21	5.2	1.01	0.58–1.66	17	7.4	19	4.6	1.62 ^b	1.29–2.00
Thyroid	17	5.6	14	8.3	0.67 ^b	0.61–0.74	17	7.3	14	7.9	0.92	0.71–1.18	15	7.4	14	8.5	0.87	0.60–1.23	19	5.5	16	5.6	0.98	0.78–1.22
Melanoma of the skin	18	4.8	7	21.7	0.22 ^b	0.20–0.25	21	4.6	8	15.9	0.29 ^b	0.20–0.41	30	1.3	8	14.5	0.09 ^b	0.03–0.20	14	9.6	8	15.8	0.61 ^b	0.50–0.72
Esophagus	19	4.4	19	5.1	0.87 ^b	0.76–0.99	16	8.2	19	5.3	1.55 ^b	1.14–2.05	13	9.5	18	5.7	1.66 ^b	1.05–2.51	21	4.4	21	4.3	1.01	0.76–1.32
Testis	20	4.1	17	6.7	0.61 ^b	0.53–0.70	19	5.1	17	6.6	0.77	0.53–1.11	18	6.2	15	7.1	0.86	0.50–1.48	22	3.4	17	5.6	0.62 ^b	0.42–0.89
Brain	21	3.6	16	6.9	0.53 ^b	0.46–0.59	22	3.7	16	6.6	0.55 ^b	0.38–0.78	24	2.9	16	7.0	0.41 ^b	0.22–0.73	18	6.1	15	6.9	0.88	0.70–1.08
Gallbladder	22	3.3	32	0.9	3.59 ^b	3.04–4.22	25	2.6	31	1.1	2.48 ^b	1.49–3.86	19	5.6	35	0.8	6.65 ^b	2.94–55.85	26	2.1	34	0.8	2.48 ^b	1.54–3.78
Larynx	23	3.1	22	3.8	0.81 ^b	0.69–0.94	20	5.0	21	3.8	1.33	0.92–1.84	22	3.5	23	3.3	1.07	0.56–1.92	20	5.0	20	4.5	1.13	0.87–1.44
Other biliary	24	2.2	29	1.5	1.48 ^b	1.21–1.80	33	1.0	27	1.5	0.67	0.22–1.47	21	4.9	29	1.4	3.47 ^b	1.63–7.23	25	2.1	28	1.4	1.55	1.00–2.30
Soft tissues including heart	25	2.1	23	3.0	0.70 ^b	0.59–0.84	24	2.8	24	2.7	1.02	0.61–1.58	27	1.8	24	3.1	0.57	0.23–1.23	23	3.0	25	2.4	1.24	0.89–1.69

(continued)



Type of cancer	Pacific Coast					East					Southwest							
	AI/AN		NHW		AI/AN:NHW	AI/AN		NHW		AI/AN:NHW	AI/AN		NHW		AI/AN:NHW			
	Rank	Rate	Rank	Rate	RR	95% CI	Rank	Rate	Rank	Rate	RR	95% CI	Rank	Rate	Rank	Rate	RR	95% CI
All sites/types		312.7		488.0	0.64 ^b	0.62–0.66		286.1		492.9	0.58 ^b	0.54–0.62		232.9		445.1	0.52 ^b	0.51–0.54
Prostate	1	83.2	1	160.8	0.52 ^b	0.47–0.57	1	83.9	1	155.9	0.54 ^b	0.44–0.65	1	65.7	1	133.8	0.49 ^b	0.44–0.54
Female breast	2	74.7	2	142.6	0.52 ^b	0.48–0.57	2	71.4	2	133.6	0.53 ^b	0.45–0.63	2	50.8	2	125.2	0.41 ^b	0.37–0.44
Lung and bronchus	3	51.8	3	70.1	0.74 ^b	0.68–0.80	3	46.8	3	74.2	0.63 ^b	0.53–0.75	6	14.9	3	65.6	0.23 ^b	0.20–0.26
Colon and rectum	4	38.7	4	48.5	0.80 ^b	0.72–0.88	4	36.0	4	55.2	0.65 ^b	0.53–0.79	3	21.0	4	46.8	0.45 ^b	0.40–0.50
Kidney and renal pelvis	7	12.5	11	12.2	1.02	0.86–1.20	6	14.4	10	13.4	1.07	0.78–1.43	4	18.0	10	11.7	1.53 ^b	1.37–1.72
Corpus/uterus, NOS	5	16.7	7	23.6	0.71 ^b	0.58–0.85	5	15.2	6	25.4	0.60 ^b	0.40–0.86	5	16.7	7	19.6	0.86 ^b	0.74–0.99
Non-Hodgkin Lymphoma	6	12.6	8	20.1	0.62 ^b	0.53–0.74	9	7.7	8	20.0	0.38 ^b	0.24–0.57	9	9.8	8	17.3	0.57 ^b	0.48–0.66
Ovary	8	10.0	9	14.9	0.67 ^b	0.52–0.85	14	5.9	9	14.8	0.40 ^b	0.19–0.72	7	12.5	9	13.6	0.92	0.76–1.10
Stomach	13	7.9	18	5.6	1.40 ^b	1.11–1.75	13	6.1	16	6.9	0.88	0.52–1.38	8	11.5	18	4.9	2.37 ^b	2.02–2.76
Pancreas	9	9.3	13	11.1	0.84	0.68–1.02	10	7.5	12	11.6	0.65 ^b	0.38–1.00	11	7.9	14	9.8	0.80 ^b	0.66–0.95
Urinary bladder	11	8.6	6	24.0	0.36 ^b	0.29–0.44	7	11.9	5	25.8	0.46 ^b	0.32–0.64	19	3.2	5	23.8	0.13 ^b	0.10–0.18
Cervix uteri	15	6.9	17	7.0	0.98	0.74–1.27	12	7.1	15	7.3	0.97	0.53–1.62	12	7.8	15	7.3	1.07	0.85–1.32
Leukemia	12	8.6	10	12.8	0.67 ^b	0.55–0.82	8	8.1	11	13.0	0.62 ^b	0.40–0.92	14	6.3	11	11.5	0.55 ^b	0.46–0.66
Liver/ihbd	10	9.2	21	4.5	2.06 ^b	1.68–2.49	15	5.7	22	4.4	1.29	0.76–2.03	10	9.0	20	4.2	2.15 ^b	1.80–2.54
Oral cavity and pharynx	14	7.7	12	11.6	0.66 ^b	0.54–0.80	10	7.5	13	11.0	0.68	0.44–1.00	18	3.3	12	10.4	0.32 ^b	0.24–0.40
Myeloma	17	4.5	20	5.0	0.90	0.66–1.19	16	4.4	20	5.1	0.87	0.48–1.45	13	6.5	21	4.1	1.60 ^b	1.30–1.95
Thyroid	18	4.4	14	7.6	0.57 ^b	0.44–0.73	18	4.2	14	9.3	0.45 ^b	0.26–0.74	15	5.8	13	9.9	0.59 ^b	0.49–0.70
Melanoma of the skin	16	4.9	5	26.6	0.19 ^b	0.14–0.24	21	2.8	7	20.5	0.14 ^b	0.07–0.24	22	2.4	6	22.6	0.11 ^b	0.08–0.14
Esophagus	19	3.9	19	5.2	0.76	0.55–1.02	17	4.4	19	5.2	0.84	0.45–1.42	23	2.4	19	4.7	0.51 ^b	0.36–0.70
Testis	20	3.8	16	7.2	0.53 ^b	0.38–0.72	25	1.5	18	6.5	0.23 ^b	0.06–0.69	17	4.3	17	6.3	0.68 ^b	0.52–0.89
Brain	21	3.2	15	7.3	0.43 ^b	0.32–0.57	20	3.4	17	6.9	0.50 ^b	0.28–0.84	21	2.5	16	6.6	0.37 ^b	0.28–0.49
Gallbladder	25	1.5	33	0.9	1.72	0.95–2.79	24	1.6	31	1.0	1.65	0.42–4.06	16	5.5	32	0.8	6.98 ^b	5.40–8.89
Larynx	22	2.5	22	3.4	0.76	0.51–1.07	19	3.8	21	4.5	0.84	0.43–1.46	26	1.0	22	3.5	0.27 ^b	0.15–0.44
Other biliary	24	1.6	29	1.5	1.11	0.63–1.78	34	0.6	27	1.6	0.37	0.04–1.33	20	2.9	29	1.4	2.15 ^b	1.53–2.92
Soft tissues including heart	26	1.5	23	3.1	0.46 ^b	0.29–0.70	27	0.9	24	3.0	0.29 ^b	0.05–0.86	24	1.9	23	2.9	0.64 ^b	0.45–0.88

Source: Cancer registries in the Centers for Disease Control and Prevention's National Program of Cancer Registries and/or the National Cancer Institute's Surveillance, Epidemiology, and End Results Program
AI/AN indicates American Indians/Alaska Natives; NHW, non-Hispanic whites; RR, rate ratio; NOS, not otherwise specified; NHL, non-Hodgkin lymphoma; IHBD, intrahepatic bile ducts.

^a Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population (19 age groups - Census P25-1130).

^b P-Value for rate ratio ≤ 0.05

Years of data and registries used: 1999-2004 (41 states and the District of Columbia): Alaska,* Alabama,* Arkansas, Arizona,* California,* Colorado,* Connecticut,* the District of Columbia, Delaware, Florida,* Georgia, Hawaii, Iowa,* Idaho,* Illinois, Indiana,* Kentucky, Louisiana,* Massachusetts,* Maine,* Michigan,* Minnesota,* Missouri, Montana,* North Carolina,* Nebraska,* New Hampshire, New Jersey, New Mexico,* Nevada,* New York,* Ohio, Oklahoma,* Oregon,* Pennsylvania,* Rhode Island,* Texas,* Utah,* Washington,* Wisconsin,* West Virginia, and Wyoming*; 1999 and 2002-2004: North Dakota*; 2001-2004: South Dakota*; 2003-2004: Mississippi* and Virginia; 2004: Tennessee (asterisks indicate states with at least 1 county designated as a CHSDA).

Percentage regional coverage of AI/AN in CHSDA counties to AI/AN in all counties: Alaska, 100%; East, 13.1%; Northern Plains, 59.0%; Southern Plains, 64.1%; Pacific Coast, 55.6%; Southwest, 87.5%.

