

PART IV—General Mortality Statistics

Chart 4.1
Age-Adjusted Mortality Rates
 Calendar Years 1990–1992

In 1990-1992, the age-adjusted mortality rate (all causes) for the IHS service area population was 598.1. When the 3 IHS Areas with apparent problems in underreporting of Indian race on death certificates are excluded, the rate is 735.3. This is 43 percent higher than the U.S. All Races rate of 513.7 for 1991. The Aberdeen rate (1,048.7) was more than double the U.S. rate.

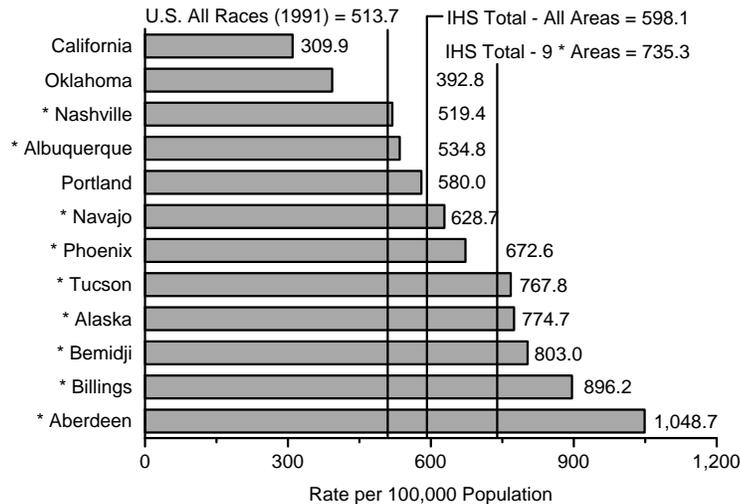


Table 4.1
Age-Adjusted Mortality Rates
(All Causes)
 Calendar Years 1990–1992

	Total Deaths	Rate ¹
U.S. All Races (1991)	2,169,518	513.7
All IHS Areas	19,425	598.1
9* Areas ²	13,223	735.3
Aberdeen*	1,921	1048.7
Alaska*	1,746	774.7
Albuquerque*	977	534.8
Bemidji*	1,258	803.0
Billings*	1,016	896.2
California	908	309.9
Nashville*	788	519.4
Navajo*	3,082	628.7
Oklahoma	3,459	392.8
Phoenix*	1,944	672.6
Portland	1,835	580.0
Tucson*	491	767.8

¹ Rate per 100,000 population.

² The 3 IHS Areas that do not have an asterisk (California, Oklahoma, and Portland) appear to have a problem with underreporting of Indian race on death certificates. Therefore a separate IHS rate was calculated excluding these 3 Areas.

Chart 4.2 Years of Productive Life Lost Rates

Calendar Years 1990–1992

In 1990-1992, the years of productive life lost rate (all causes) for the IHS service area population was 83.0. When the 3 IHS Areas with apparent problems in underreporting of Indian race on death certificates are excluded, the rate is 104.4. This is nearly double the U.S. All Races rate of 55.6 for 1991. Each of the remaining 9 IHS Areas had a rate greater than the U.S. All Races rate.

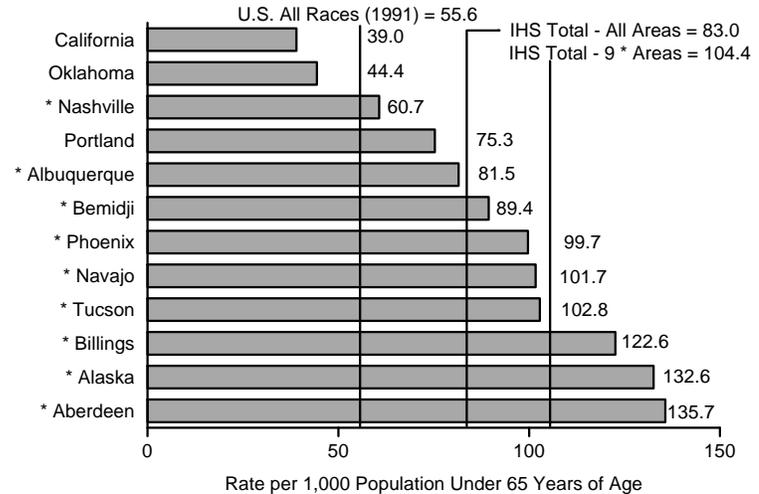


Table 4.2 Years of Productive Life Lost (YPLL) Rates (All Causes)

Calendar Years 1990–1992

	Number of YPLL ¹	Rate ²
U.S. All Races (1991)	12,565,117	55.6
All IHS Areas	291,269	83.0
9* Areas ³	218,663	104.4
Aberdeen*	30,870	135.7
Alaska*	33,597	132.6
Albuquerque*	15,984	81.5
Bemidji*	15,906	89.4
Billings*	16,936	122.6
California	11,789	39.0
Nashville*	8,995	60.7
Navajo*	53,745	101.7
Oklahoma	32,721	44.4
Phoenix*	35,329	99.7
Portland	28,096	75.3
Tucson*	7,301	102.8



¹ Years of Productive Life Lost (YPLL) is a mortality indicator which measures the burden of premature deaths. It is calculated by subtracting the age at death from age 65 and summing the result over all deaths.

² Rate per 1,000 population under 65 years of age.

³ The 3 IHS Areas that do not have an asterisk (California, Oklahoma, and Portland) appear to have a problem with underreporting of Indian race on death certificates. Therefore a separate IHS rate was calculated excluding these 3 Areas.

Chart 4.3

Leading Causes of Death

All IHS Areas, Calendar Years 1990–1992

In 1990-1992, 21.9 percent of all deaths in the IHS service area were caused by diseases of the heart. This was followed by accidents and adverse effects at 15.1 percent.

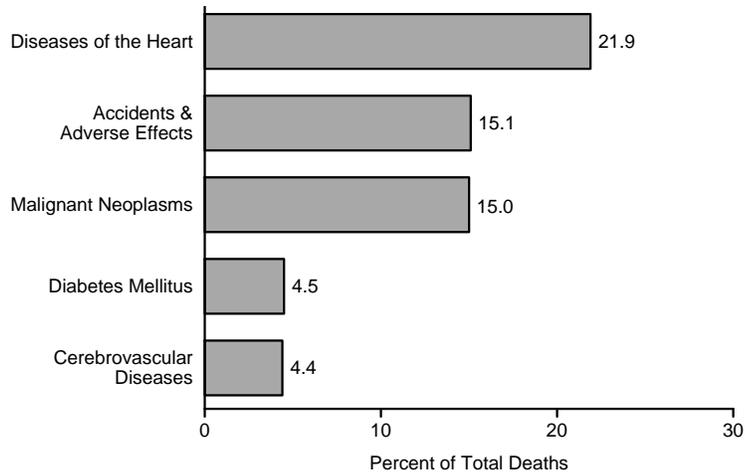


Chart 4.4

Leading Causes of Death

U.S. All Races, Calendar Year 1991

In 1991, 33.2 percent of all deaths in the U.S. were caused by diseases of the heart. This was followed by malignant neoplasms at 23.7 percent.

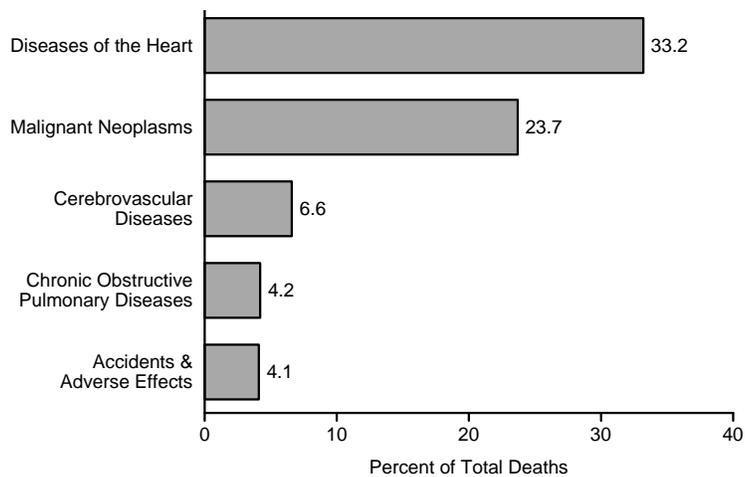


Chart 4.5 Leading Causes of Death

Aberdeen Area, Calendar Years 1990–1992

In 1990-1992, 21.1 percent of all deaths in the Aberdeen Area were caused by diseases of the heart. This was followed by malignant neoplasms at 15.1 percent.

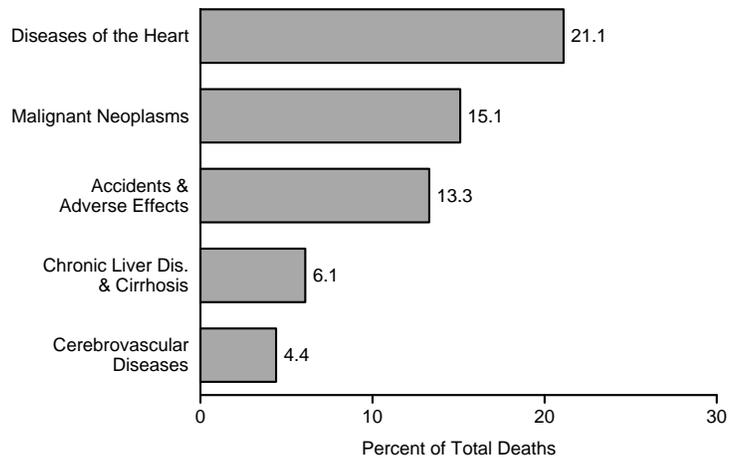


Chart 4.6 Leading Causes of Death

Alaska Area, Calendar Years 1990–1992

In 1990-1992, 22.0 percent of all deaths in the Alaska Area were caused by accidents and adverse effects. This was followed by malignant neoplasms at 16.8 percent.

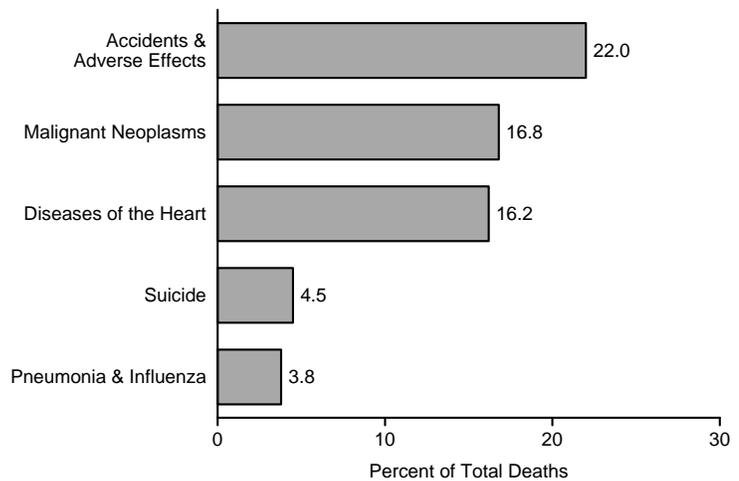


Chart 4.7 Leading Causes of Death

Albuquerque Area, Calendar Years 1990–1992

In 1990-1992, 17.3 percent of all deaths in the Albuquerque Area were caused by accidents and adverse effects. This was followed by diseases of the heart at 14.5 percent.

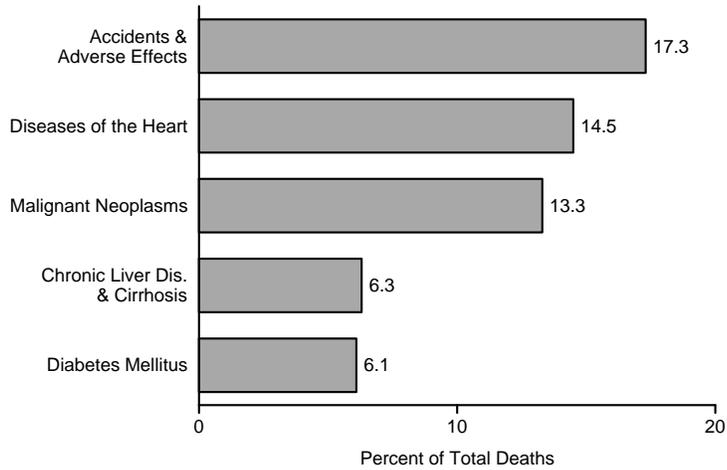


Chart 4.8 Leading Causes of Death

Bemidji Area, Calendar Years 1990–1992

In 1990-1992, 26.9 percent of all deaths in the Bemidji Area were caused by diseases of the heart. This was followed by malignant neoplasms at 18.5 percent.

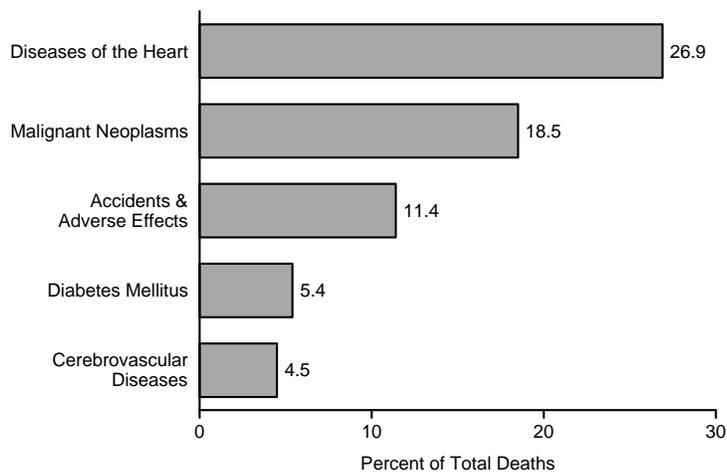


Chart 4.9 Leading Causes of Death

Billings Area, Calendar Years 1990–1992

In 1990-1992, 18.6 percent of all deaths in the Billings Area were caused by diseases of the heart. This was followed by accidents and adverse effects at 15.6 percent.

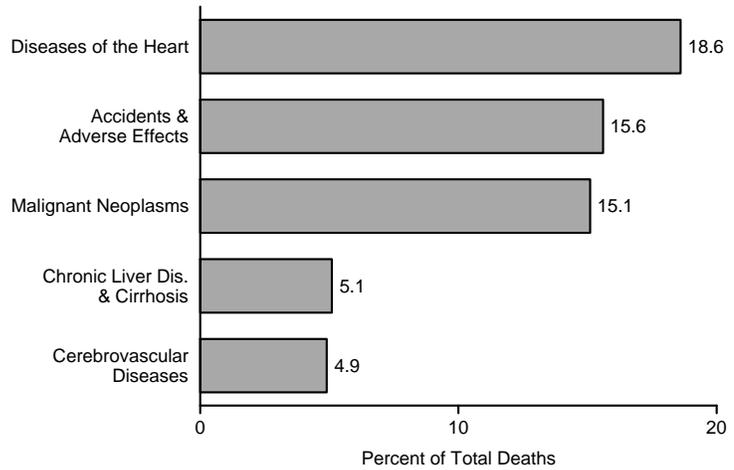


Chart 4.10 Leading Causes of Death

California Area, Calendar Years 1990–1992

In 1990-1992, 26.2 percent of all deaths in the California Area were caused by diseases of the heart. This was followed by malignant neoplasms at 16.5 percent.

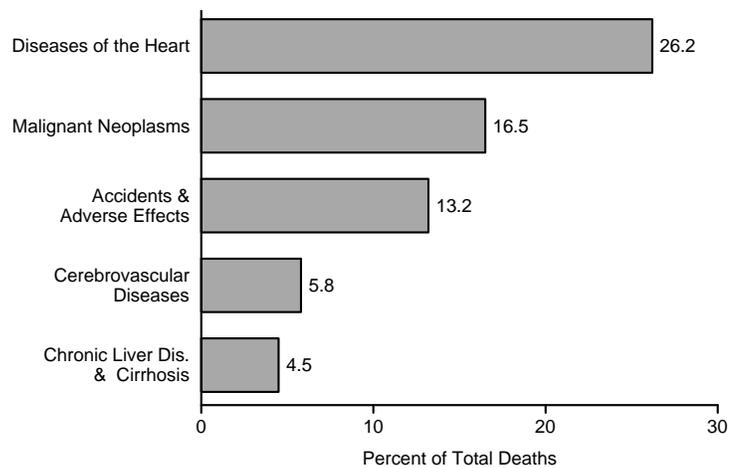


Chart 4.11
Leading Causes of Death
 Nashville Area, Calendar Years 1990–1992

In 1990-1992, 27.7 percent of all deaths in the Nashville Area were caused by diseases of the heart. This was followed by malignant neoplasms at 18.3 percent.

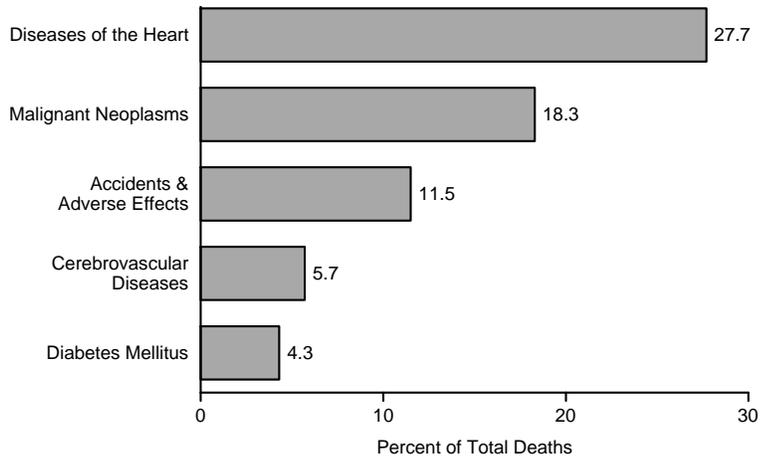


Chart 4.12
Leading Causes of Death
 Navajo Area, Calendar Years 1990–1992

In 1990-1992, 22.6 percent of all deaths in the Navajo Area were caused by accidents and adverse effects. This was followed by diseases of the heart at 15.7 percent.

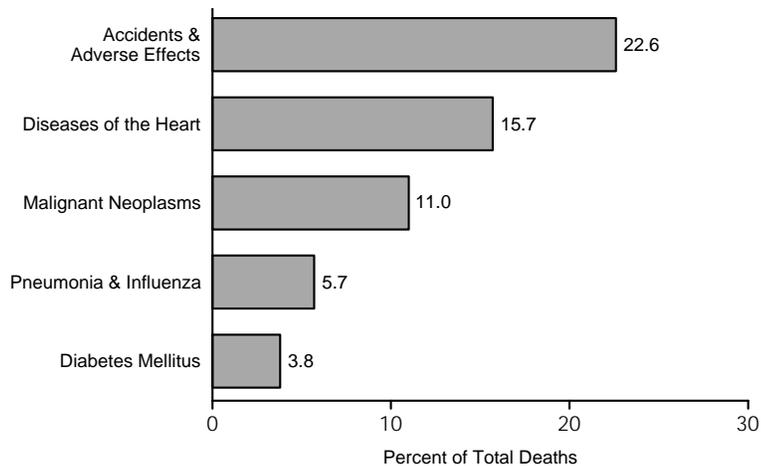


Chart 4.13

Leading Causes of Death

Oklahoma Area, Calendar Years 1990–1992

In 1990-1992, 32.4 percent of all deaths in the Oklahoma Area were caused by diseases of the heart. This was followed by malignant neoplasms at 19.1 percent.

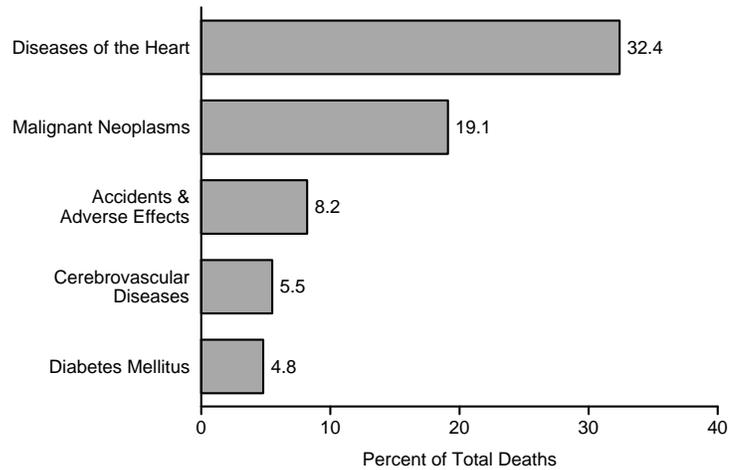


Chart 4.14

Leading Causes of Death

Phoenix Area, Calendar Years 1990–1992

In 1990-1992, 17.3 percent of all deaths in the Phoenix Area were caused by diseases of the heart. This was followed by accidents and adverse effects at 16.8 percent.

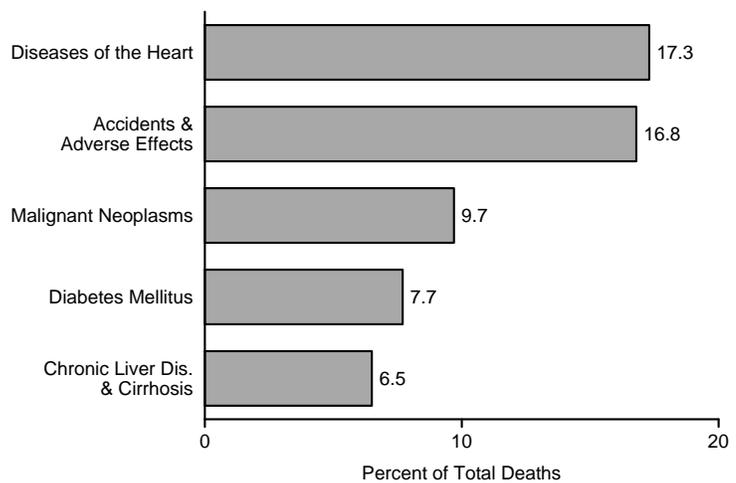


Chart 4.15

Leading Causes of Death

Portland Area, Calendar Years 1990–1992

In 1990-1992, 22.6 percent of all deaths in the Portland Area were caused by diseases of the heart. This was followed by malignant neoplasms at 15.3 percent.

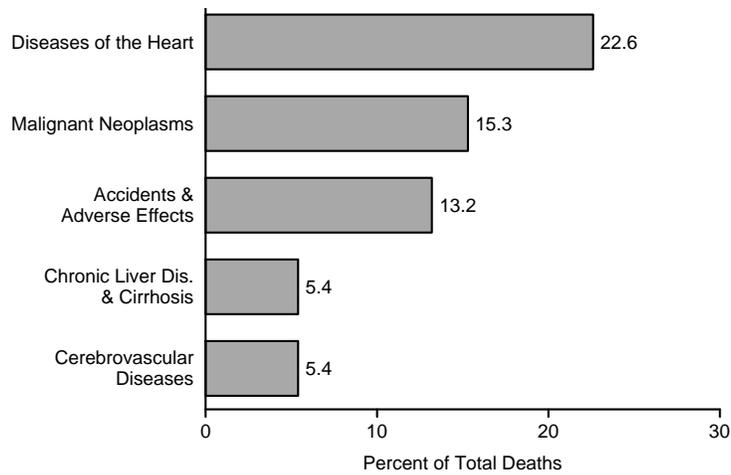


Chart 4.16

Leading Causes of Death

Tucson Area, Calendar Years 1990–1992

In 1990-1992, 15.9 percent of all deaths in the Tucson Area were caused by diseases of the heart. This was followed by accidents and adverse effects at 13.0 percent.

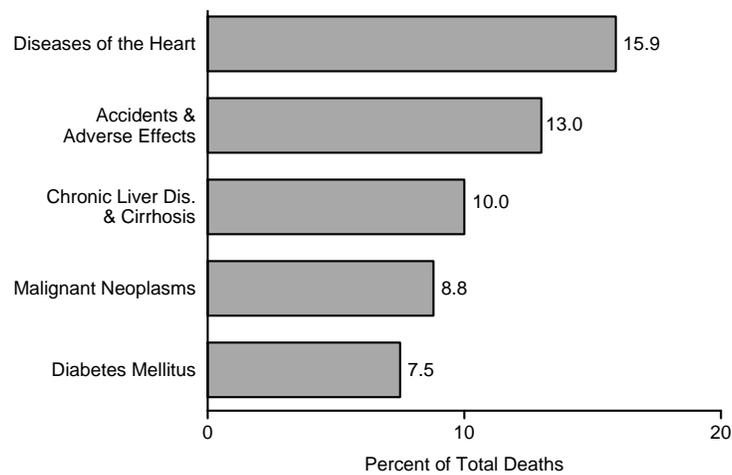


Chart 4.17 Age-Adjusted Injury and Poisoning Mortality Rates

Calendar Years 1990-1992

In 1990-1992, the age-adjusted injury and poisoning mortality rate for the IHS service area population was 117.6. When the 3 IHS Areas with apparent problems in underreporting of Indian race on death certificates are excluded, the rate is 156.2. This is nearly 3 times the U.S. All Races rate of 54.2 for 1991. Four Areas (Alaska, Navajo, Aberdeen, and Billings) had rates exceeding 175.0.

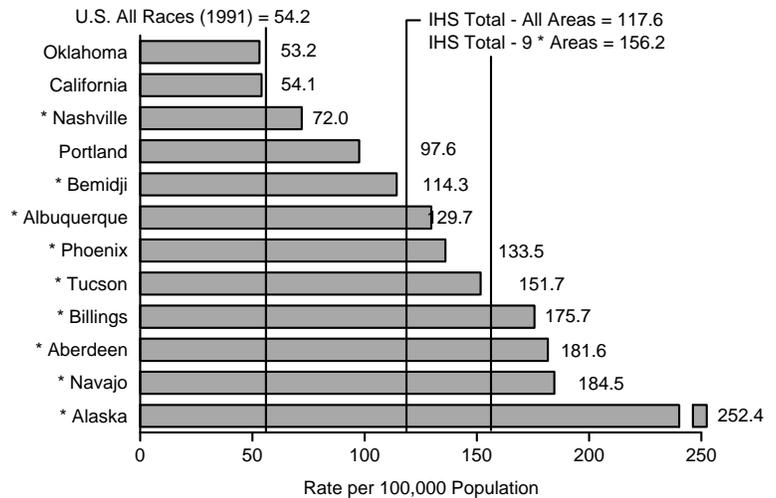


Table 4.17 Age-Adjusted Injury and Poisoning¹ Mortality Rates

Calendar Years 1990-1992



	Deaths ²	Rate ³
U.S. All Races (1991)	149,187	54.2
All IHS Areas	4,115	117.6
9* Areas ⁴	3,159	156.2
Aberdeen*	371	181.6
Alaska*	513	252.4
Albuquerque*	252	129.7
Bemidji*	199	114.3
Billings*	232	175.7
California	171	54.1
Nashville*	110	72.0
Navajo*	903	184.5
Oklahoma	413	53.2
Phoenix*	478	136.0
Portland	372	97.6
Tucson*	101	151.7

¹ Includes the following ICD-9 cause of death groups combined: Motor vehicle accidents-E810-E825. Other accidents-E800-E807, E826-E949. Suicide-E950-E959. Homicide-E960-E978. Injury undetermined whether accidentally or purposely inflicted-E980-E989. Injury resulting from operations of war-E990-E999.

² Includes deaths with age not reported. For IHS, includes Albuquerque-1 death, Oklahoma-2 deaths, and Phoenix-1 death.

³ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

⁴ The 3 IHS Areas that do not have an asterisk (California, Oklahoma, and Portland) appear to have a problem with underreporting of Indian race on death certificates. Therefore a separate IHS rate was calculated excluding these 3 Areas.

Chart 4.18 Age-Adjusted Accident Mortality Rates

Calendar Years 1990–1992

In 1990-1992, the age-adjusted accident mortality rate for the IHS service area population was 83.2. When the 3 IHS Areas with apparent problems in underreporting of Indian race on death certificates are excluded, the rate is 113.3. This is 265 percent higher than the U.S. All Races rate of 31.0 for 1991. The Alaska Area had the highest rate (150.5), and the Navajo Area was second (143.3). For the IHS service area, 23.5 percent of the motor vehicle accidents were pedestrian-related compared to 15.2 percent for the U.S. All Races population.

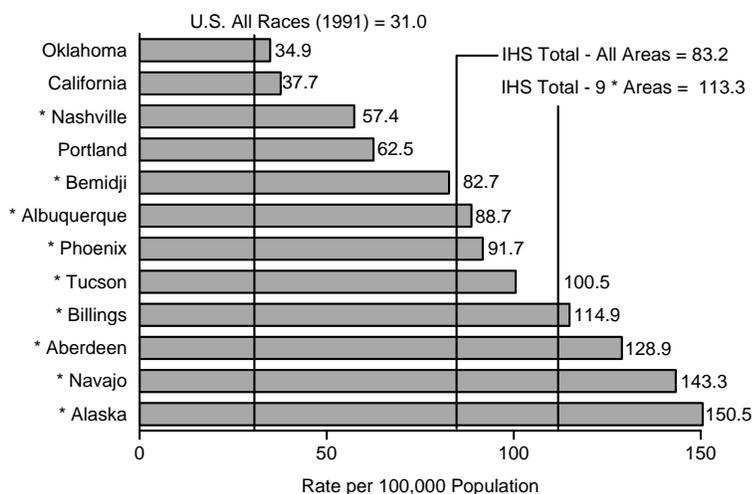


Table 4.18 Age-Adjusted Accident Mortality Rates

Calendar Years 1990–1992

	Motor Vehicle Accidents							
	All Accidents		Totals		Pedestrian-related ¹		Other Accidents	
	Deaths	Rate ²	Deaths	Rate ²	Deaths	Deaths	Deaths	Rate ²
U.S. All Races (1991)	89,347	31.0	43,536	17.0	6,624	15.2%	45,811	13.9
All IHS Areas	2,898	83.2	1,644	47.5	386	23.5%	1,291	37.6
9* Areas ³	2,269	113.3	1,278	63.9	317	24.8%	1,012	50.5
Aberdeen*	256	128.9	159	80.1	26	16.4%	97	48.8
Alaska*	382	150.5	79	31.5	24	30.4%	305	119.7
Albuquerque*	169	88.7	110	56.4	44	40.0%	59	32.3
Bemidji*	144	82.7	89	52.2	15	16.9%	55	30.5
Billings*	151	114.9	101	76.9	12	11.9%	57	43.0
California	118	37.7	71	22.2	15	21.1%	49	16.2
Nashville*	89	57.4	58	37.7	12	20.7%	33	21.0
Navajo*	696	143.3	438	89.3	130	29.7%	260	54.4
Oklahoma	274	34.9	171	22.4	33	19.3%	112	13.5
Phoenix*	318	91.7	205	58.6	44	21.5%	121	35.3
Portland	237	62.5	124	33.0	21	16.9%	118	30.7
Tucson*	64	100.5	39	58.7	10	25.6%	25	41.8

¹ Includes motor vehicle accidents having ICD-9 codes E810-E825 with a fourth digit code .7. The fourth digit code .7 indicates that a pedestrian was the subject decedent as a result of the motor vehicle accident.

² Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

³ The 3 IHS Areas that do not have an asterisk (California, Oklahoma, and Portland) appear to have a problem with underreporting of Indian race on death certificates. Therefore a separate IHS rate was calculated excluding these 3 Areas.

Chart 4.19 Age-Adjusted Suicide Mortality Rates

Calendar Years 1990–1992

In 1990-1992, the age-adjusted suicide mortality rate for the IHS service area population was 16.2. When the 3 IHS Areas with apparent problems in underreporting of Indian race on death certificates are excluded, the rate is 21.1. This is 85 percent higher than the U.S. All Races rate of 11.4 for 1991. Four Areas (Alaska, Billings, Aberdeen, and Albuquerque) had rates more than double the U.S. rate.

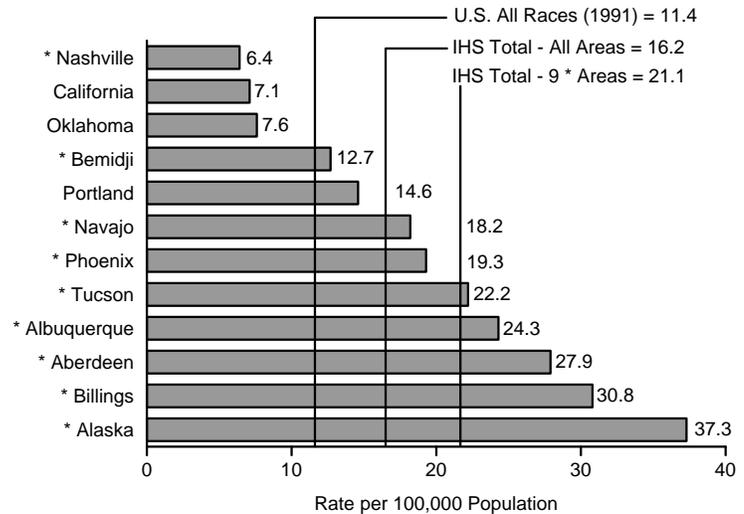


Table 4.19 Age-Adjusted Suicide Mortality Rates

Calendar Years 1990–1992

	Deaths	Rate ¹
U.S. All Races (1991)	30,810	11.4
All IHS Areas	572	16.2
9* Areas ²	437	21.1
Aberdeen*	59	27.9
Alaska*	79	37.3
Albuquerque*	50	24.3
Bemidji*	23	12.7
Billings*	40	30.8
California	22	7.1
Nashville*	9	6.4
Navajo*	91	18.2
Oklahoma	58	7.6
Phoenix*	70	19.3
Portland	55	14.6
Tucson*	16	22.2

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, Oklahoma, and Portland) appear to have a problem with underreporting of Indian race on death certificates. Therefore a separate IHS rate was calculated excluding these 3 Areas.

Rates

Calendar Years 1990–1992



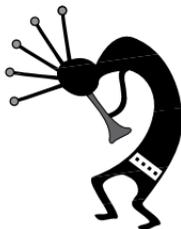
	Deaths
U.S. All Races (1991)	26,513
All IHS Areas	520
9* Areas ²	371
Aberdeen*	48
Alaska*	40
Albuquerque*	28
Bemidji*	27
Billings*	28
California	25
Nashville*	8
Navajo*	98
Oklahoma	64
Phoenix*	73
Portland	60
Tucson*	21

¹ Age-adjusted rate per 100,000 population. Rates based on a should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, appear to have a problem with underreporting of Indian rates. Therefore a separate IHS rate was calculated excluding these

Injury and Poisoning Other Causes¹

Calendar Years 1990-1992



U.S. All Races (1991)

All IHS Areas

9* Areas³

Aberdeen*

Alaska*

Albuquerque*

Bemidji*

Billings*

California

Nashville*

Navajo*

Oklahoma

Phoenix*

Portland

Tucson*

¹ Includes the following ICD-9 cause of death whether accidentally or purposely inflicted-E980-E989 of war-E990-E999 there were 10 deaths due to 1991 and 0 deaths for the American Indian a service area, 1990-1992).

² Age-adjusted rate per 100,000 population. Rate should be interpreted with caution.

³ The 3 IHS Areas that do not have an asterisk appear to have a problem with underreporting. Therefore a separate IHS rate was calculated.

Calendar Years 1990–1992

Number of Deaths and ICD-9 Causes of Death Group

	All Causes	Number of Deaths and ICD-9 Causes of Death Group						
		291	303	305.0	425.5	535.3	571.0–571.3	790.3
U.S. All Races (1991)	19,091	361	5,055	804	891	92	11,702	2,292
All IHS Areas	1,098	19	292	108	24	7	618	1,367
9* Areas ²	875	14	236	92	19	4	484	1,005
Aberdeen*	141	1	38	7	3	—	91	—
Alaska*	97	2	14	24	5	1	40	1,367
Albuquerque*	89	5	24	6	1	—	53	—
Bemidji*	44	2	10	3	1	1	25	—
Billings*	60	1	15	1	2	—	41	—
California	50	—	18	1	1	1	29	—
Nashville*	32	—	6	2	1	1	21	—
Navajo*	238	2	90	38	6	1	92	—
Oklahoma	63	1	12	8	2	1	38	—
Phoenix*	138	1	33	10	—	—	92	—
Portland	110	4	26	7	2	1	67	—
Tucson*	36	—	6	1	—	—	29	—

¹ Age-adjusted rate per 100,000 population. The rate computation excludes 3 deaths with age not reported. The number of deaths should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, Oklahoma, and Portland) appear to have a problem with the Indian race on death certificates. Therefore a separate IHS rate was calculated excluding these 3 Areas.

291—Alcoholic Psychoses; 303—Alcoholic Dependence Syndrome; 305.0—Alcohol Overdose; 425.5—Alcoholic Liver Disease; 535.3—Alcoholic Gastritis; 571.0–571.3—Alcoholic Liver Disease; 790.3—Elevated Blood-Alcohol Level; E86—Poisoning by Alcohol, not elsewhere classified.

Mortality Rates

Calendar Years 1990–1992

U.S. All Races (1991)

All IHS Areas

9* Areas ²

Aberdeen*

Alaska*

Albuquerque*

Bemidji*

Billings*

California

Nashville*

Navajo*

Oklahoma

Phoenix*

Portland

Tucson*

¹ Age-adjusted rate per 100,000 population. Rates should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk appear to have a problem with underreporting. Therefore a separate IHS rate was calculated.

Table 4.24

Age-Adjusted Tuberculosis Mortality Rates

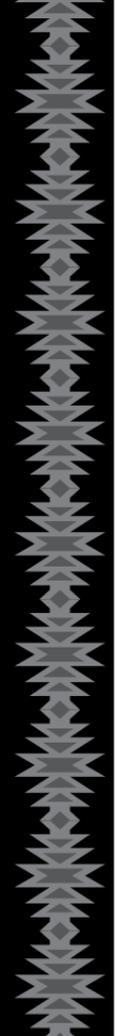
Calendar Years 1990–1992

	Deaths
U.S. All Races (1991)	1,713
All IHS Areas	68
9* Areas ²	50
Aberdeen*	9
Alaska*	7
Albuquerque*	—
Bemidji*	1
Billings*	3
California	—
Nashville*	2
Navajo*	20
Oklahoma	12
Phoenix*	6
Portland	6
Tucson*	2

¹ Rate per 100,000 population. Rates based on a small number of deaths and are interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, Phoenix, and Portland) appear to have a problem with underreporting of Indian rates. Therefore a separate IHS rate was calculated excluding these areas.





Diseases Mortality

Calendar Years 1990–1992

U.S. All Races (1991)

All IHS Areas

9* Areas ²

Aberdeen*

Alaska*

Albuquerque*

Bemidji*

Billings*

California

Nashville*

Navajo*

Oklahoma

Phoenix*

Portland

Tucson*

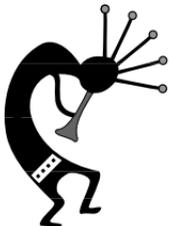
¹ Age-adjusted rate per 100,000 population. Rates should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk appear to have a problem with underreporting. Therefore a separate IHS rate was calculated.

Heart Mortality Rates

Calendar Years 1990–1992

	Deaths
U.S. All Races (1991)	720,862
All IHS Areas	4,249
9* Areas ²	2,473
Aberdeen*	406
Alaska*	283
Albuquerque*	142
Bemidji*	338
Billings*	189
California	238
Nashville*	218
Navajo*	483
Oklahoma	1,123
Phoenix*	336
Portland	415
Tucson*	78



¹ Age-adjusted rate per 100,000 population. Rates based on a should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, appear to have a problem with underreporting of Indian rates. Therefore a separate IHS rate was calculated excluding these

Diseases Mortality

Calendar Years 1990–1992

U.S. All Races (1991)

All IHS Areas

9* Areas ²

Aberdeen*

Alaska*

Albuquerque*

Bemidji*

Billings*

California

Nashville*

Navajo*

Oklahoma

Phoenix*

Portland

Tucson*

¹ Age-adjusted rate per 100,000 population. Rates should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk appear to have a problem with underreporting. Therefore a separate IHS rate was calculated for these areas.

Mortality Rates

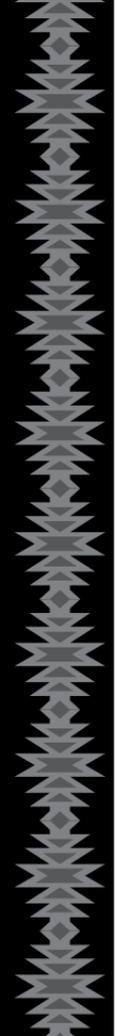
Calendar Years 1990–1992



	Deaths
U.S. All Races (1991)	514,657
All IHS Areas	2,906
9* Areas ²	1,815
Aberdeen*	290
Alaska*	293
Albuquerque*	130
Bemidji*	233
Billings*	153
California	150
Nashville*	144
Navajo*	340
Oklahoma	660
Phoenix*	189
Portland	281
Tucson*	43

¹ Age-adjusted rate per 100,000 population. Rates based on a should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, appear to have a problem with underreporting of Indian ra Therefore a separate IHS rate was calculated excluding these



Mortality Rates For

Calendar Years 1990–1992

U.S. All Races (1991)

All IHS Areas

9* Areas ²

Aberdeen*

Alaska*

Albuquerque*

Bemidji*

Billings*

California

Nashville*

Navajo*

Oklahoma

Phoenix*

Portland

Tucson*

¹ Age-adjusted rate per 100,000 female population. Deaths should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk appear to have a problem with underreporting. Therefore a separate IHS rate was calculated for these areas.

Calendar Years 1990–1992

	Total Deaths
U.S. All Races (1991)	4,514
All IHS Areas	96
9* Areas ²	63
Aberdeen*	14
Alaska*	7
Albuquerque*	2
Bemidji*	4
Billings*	4
California	4
Nashville*	3
Navajo*	20
Oklahoma	18
Phoenix*	7
Portland	11
Tucson*	2

¹ Age-adjusted rate per 100,000 female population. Rates based on these deaths should be interpreted with caution.

² The 3 IHS Areas that do not have an asterisk (California, Phoenix, and Portland) appear to have a problem with underreporting of Indian race. Therefore a separate IHS rate was calculated excluding these areas.

caution because of the small
number of deaths involved.

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In 1990-1992, the life expectancy at birth for males in the IHS service area population was 69.4 years. When the 3 IHS Areas with apparent problems in underreporting of Indian race on death certificates are excluded, the life expectancy is 66.1 years. This is 5.9 years less than the 1991 figure of 72.0 years for the U.S. All Races male population. Most Areas had figures less than the U.S. figure.

