

The birth rate for the IHS service area population in 1999-2001 was 1.5 times the rate for the U.S. all-races population in 2000, (14.7 and 22.2 percent, respectively). The IHS Area with the lowest birth rate (California, 14.7) had the same rate as U.S. all-races population.

Chart 3.1 Birth Rates, Calendar Years 1999–2001

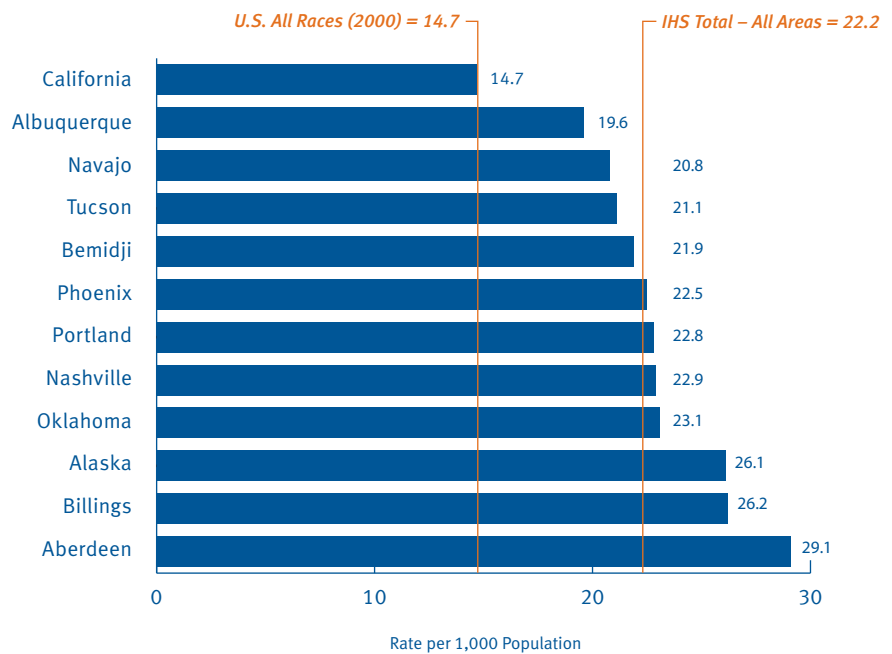


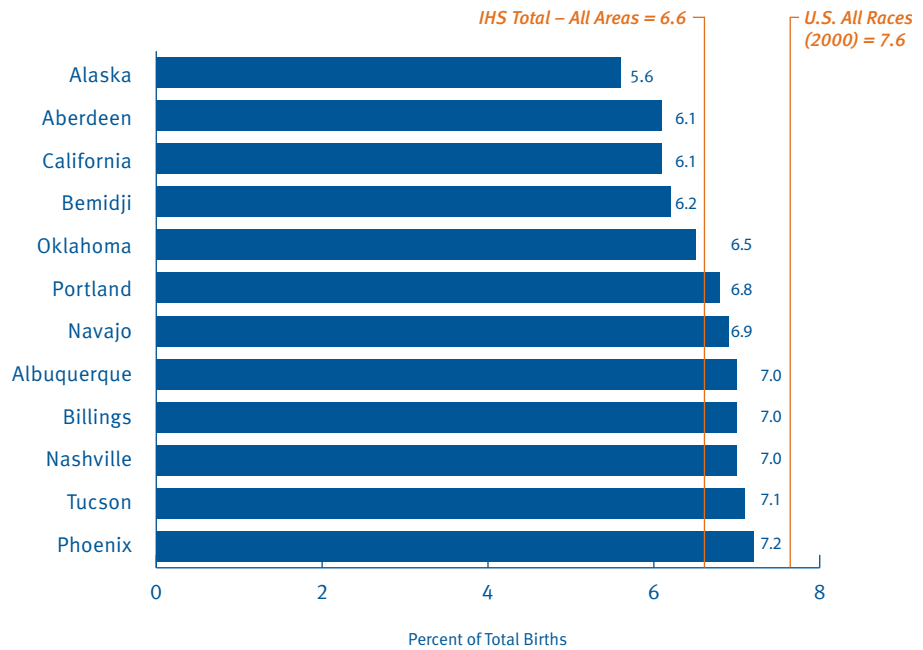
Table 3.1 Number and Rate of Live Births, Calendar Years 1999–2001

	Number	Rate <sup>1</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>14.7</i>
<b>All IHS Areas</b>	<b>109,088</b>	<b>22.2</b>
Aberdeen	8,809	29.1
Alaska	8,439	26.1
Albuquerque	5,584	19.6
Bemidji	6,966	21.9
Billings	4,599	26.2
California	7,306	14.7
Nashville	6,363	22.9
Navajo	13,634	20.8
Oklahoma	22,029	23.1
Phoenix	11,775	22.5
Portland	11,525	22.8
Tucson	2,059	21.1

<sup>1</sup> Rate per 1,000 Population

For 1999-2001, 6.6 percent of all AI/AN births in the IHS service area were considered low birthweight (less than 2,500 grams). This was better than the figure for the U.S. all-races population (7.6 percent in 2000). All IHS Areas had lower proportions of low birthweight births than the general population.

**Chart 3.2 Low Birthweight, Calendar Years 1999–2001**



**Table 3.2 Low Birthweight as a Percent of Total Live Births Calendar Years 1999–2001**

	Total Live Births <sup>1</sup>	Number Low Birthweight <sup>2</sup>	Percent Low Birthweight <sup>3</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>307,030</i>	<i>7.6</i>
<b>All IHS Areas</b>	<b>109,088</b>	<b>7,210</b>	<b>6.6</b>
Aberdeen	8,809	541	6.1
Alaska	8,439	472	5.6
Albuquerque	5,584	391	7.0
Bemidji	6,966	429	6.2
Billings	4,599	322	7.0
California	7,306	448	6.1
Nashville	6,363	445	7.0
Navajo	13,634	946	6.9
Oklahoma	22,029	1,441	6.5
Phoenix	11,775	845	7.2
Portland	11,525	783	6.8
Tucson	2,059	147	7.1

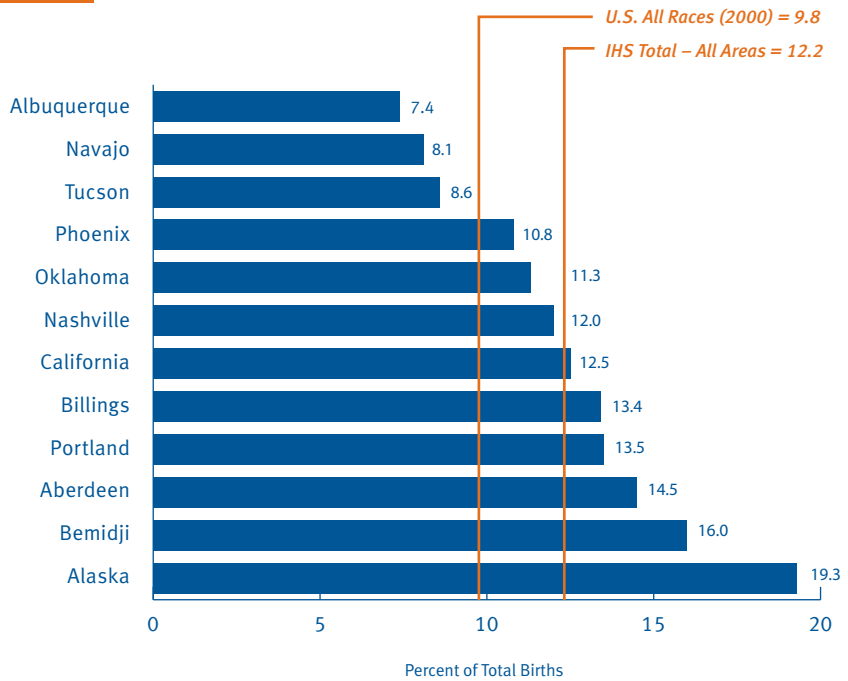
<sup>1</sup> Includes 4,841 U.S. All Races live births and 217 American Indian/Alaska Native live births with birthweight not stated.

<sup>2</sup> Birthweight of less than 2,500 grams (5lb 8oz).

<sup>3</sup> Percent low weight based on live births with a birthweight reported.

The AI/AN population experiences more high birthweights than the U.S. all-races population. High birthweight may be a complication of diabetic pregnancies. In 1999-2001, 12.2 percent of all births in the IHS service area were high birthweight (4,000 grams or more). In contrast, the U.S. all-races percentage was 2.4 percentage points lower (9.8 percent) in 2000 than the IHS service area high birthweight. The rates varied considerably by Area ranging from 7.4 percent in Albuquerque to 19.3 percent in Alaska.

**Chart 3.3 High Birthweight, Calendar Years 1999–2001**



**Table 3.3 High Birthweight as a Percent of Total Live Births Calendar Years 1999–2001**

	Total Live Births <sup>1</sup>	Number High Birthweight <sup>2</sup>	Percent High Birthweight <sup>3</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>398,737</i>	<i>9.8</i>
<b>All IHS Areas</b>	<b>109,088</b>	<b>13,319</b>	<b>12.2</b>
Aberdeen	8,809	1,275	14.5
Alaska	8,439	1,627	19.3
Albuquerque	5,584	414	7.4
Bemidji	6,966	1,117	16.0
Billings	4,599	614	13.4
California	7,306	916	12.5
Nashville	6,363	761	12.0
Navajo	13,634	1,101	8.1
Oklahoma	22,029	2,491	11.3
Phoenix	11,775	1,268	10.8
Portland	11,525	1,557	13.5
Tucson	2,059	178	8.6

<sup>1</sup> Includes 4,841 U.S. All Races live births and 217 American Indian/Alaska Native live births with birthweight not stated.

<sup>2</sup> Birthweight of more than 4,000 grams (8lb 14oz).

<sup>3</sup> Percent high weight based on live births with a birthweight reported.

During 1999-2001, prenatal care began in the first trimester for 67.3 percent of AI/AN live births among the IHS service area population, which is 16 percent lower than the number of births with prenatal care among the U.S. all-races population (83.2 percent) in 2000. The percentages varied widely among IHS Areas, ranging from 57.6 for Albuquerque to 79.1 for Nashville.

Chart 3.4 Prenatal Care in First Trimester, Calendar Years 1999–2001

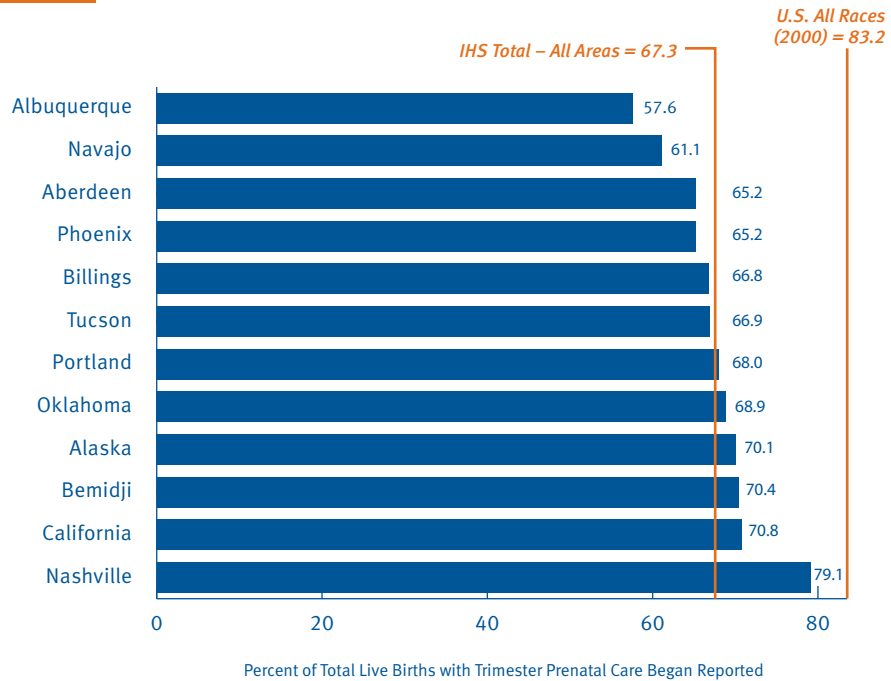


Table 3.4 Prenatal Care in First Trimester, Calendar Years 1999–2001

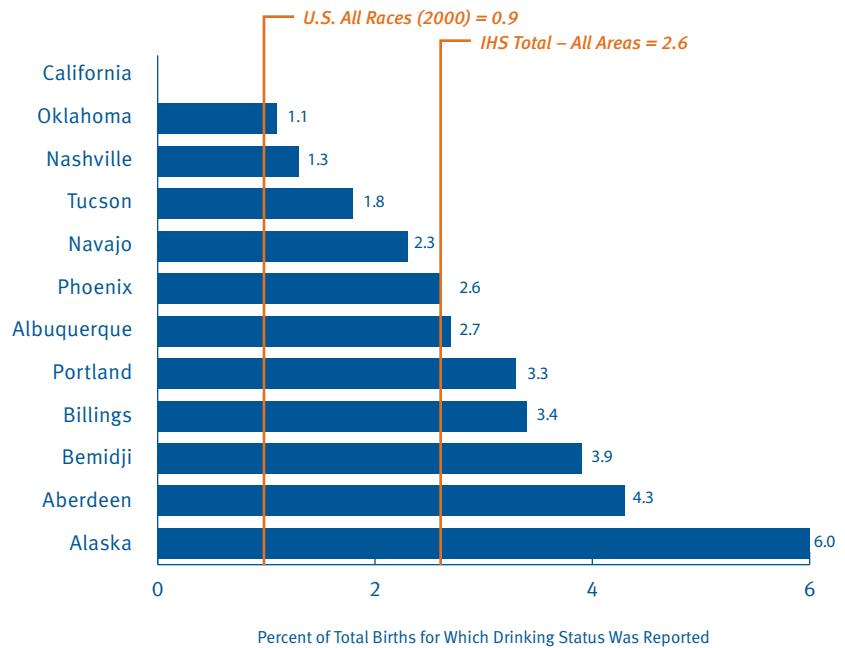
	Live Births with Trimester Prenatal Care Begun Reported		Live Births with Prenatal Care in the First Trimester <sup>2</sup>	
	Total Live Births <sup>1</sup>		NUMBER	PERCENT
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>4,014,185</i>	<i>3,284,256</i>	<i>83.2</i>
<b>All IHS Areas</b>	<b>109,088</b>	<b>107,249</b>	<b>73,451</b>	<b>67.3</b>
Aberdeen	8,809	8,636	5,747	65.2
Alaska	8,439	8,381	5,916	70.1
Albuquerque	5,584	5,483	3,218	57.6
Bemidji	6,966	6,856	4,907	70.4
Billings	4,599	4,508	3,074	66.8
California	7,306	7,186	5,171	70.8
Nashville	6,363	6,281	5,036	79.1
Navajo	13,634	13,299	8,325	61.1
Oklahoma	22,029	21,714	15,169	68.9
Phoenix	11,775	11,497	7,676	65.2
Portland	11,525	11,393	7,834	68.0
Tucson	2,059	2,015	1,378	66.9

<sup>1</sup> Includes 109,130 U.S. All Races live births and 3,730 American Indian/Alaska Native live births for which trimester of pregnancy that prenatal care began was not reported on the state birth certificate.

<sup>2</sup> Percent based on live births with this information reported.

During 1999-2001, 2.6 percent of mothers of AI/AN newborns drank alcohol during pregnancy (as reported on the state birth certificate), almost triple times the rate for mothers in the U.S. general population (0.9 percent) in 2000. The Alaska Area (6.0 percent) was 2.3 times the all IHS Area rate. The rate of alcohol use increased with age with the exception of AI/AN mothers under 18 years.

**Chart 3.5 Mothers Who Drank Alcohol During Pregnancy  
Calendar Years 1999–2001**



**Table 3.5 Percent of Mothers Who Drank Alcohol During Pregnancy<sup>1</sup>  
by Age of Mother, Calendar Years 1999–2001**

*(Mothers who drank alcohol during pregnancy includes those who drank even less than one drink per week during pregnancy.)*

	All Ages	Under 18 Years	18-19 Years	20-24 Years	25-29 Years	30-34 Years	35-54 Years
<i>U.S. All Races (2000)</i>	0.9	0.6	0.6	0.7	0.6	0.9	1.3
<b>All IHS Areas</b>	<b>2.6</b>	<b>2.6</b>	<b>2.1</b>	<b>2.4</b>	<b>2.6</b>	<b>3.1</b>	<b>3.4</b>
Aberdeen	4.3	4.4	3.0	4.6	4.5	4.5	4.5
Alaska	6.0	5.0	3.5	5.6	6.4	7.4	7.5
Albuquerque	2.7	2.1	2.5	2.2	2.8	3.7	3.6
Bemidji	3.9	5.6	3.0	3.9	3.5	3.6	5.1
Billings	3.4	2.8	2.6	3.2	3.6	4.3	4.3
California	—*	—*	—*	—*	—*	—*	—*
Nashville	1.3	1.2	0.8	0.9	1.3	2.3	1.4
Navajo	2.3	3.8	2.9	2.3	2.0	2.7	1.5
Oklahoma	1.1	1.0	0.9	0.9	1.2	1.7	1.9
Phoenix	2.6	2.4	2.1	2.1	2.4	3.4	5.0
Portland	3.3	2.6	3.0	3.2	3.3	3.2	4.7
Tucson	1.8	0.5	0.7	1.5	1.8	3.0	4.6

— Represents zero.

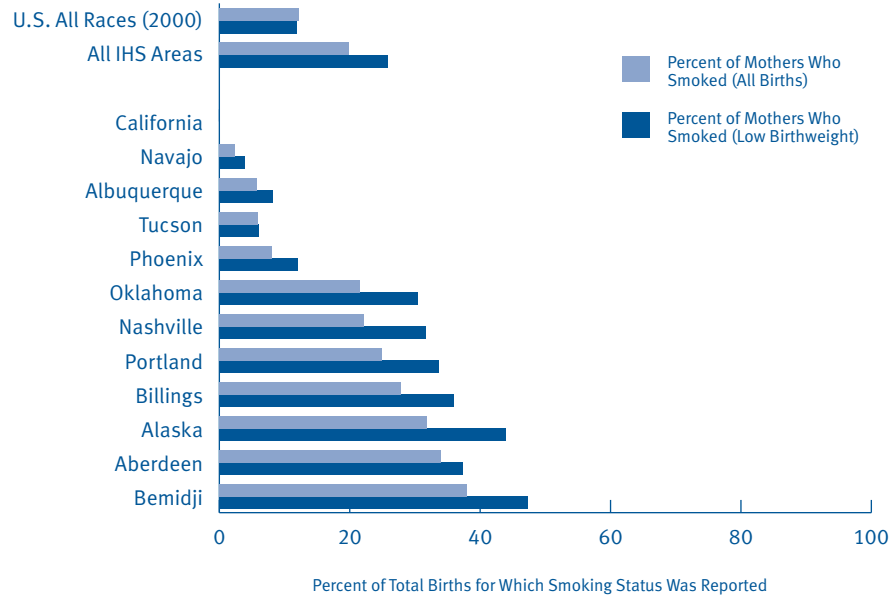
\* Percent based on less than twenty births in the age group specified.

<sup>1</sup> Based on the number of live births with drinking status of the mother reported.

NOTE: Excludes data for California, which did not report alcohol use on the state birth certificate.

During 1999-2001, 19.8 percent of women who gave birth to AI/AN newborns smoked tobacco during pregnancy. Women in the U.S. all-races population smoked at a lower rate during pregnancy (12.2 percent) in 2000. Of all AI/AN low birthweights, 25.9 percent were to women who reported smoking during pregnancy. There were considerable variations among the IHS Areas and age groups in terms of these two types of rates.

**Chart 3.6 Mothers Who Smoked During Pregnancy Calendar Years 1999-2001**



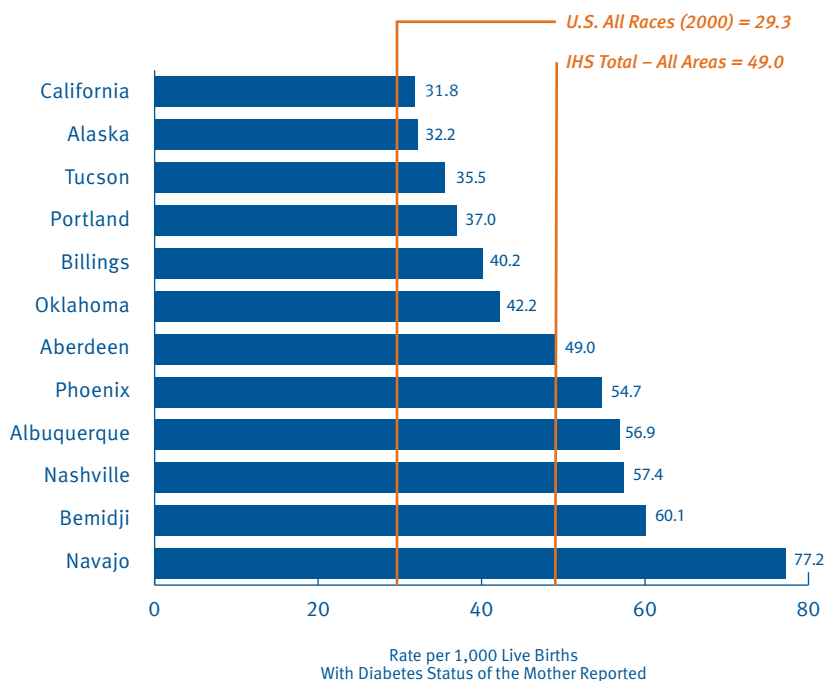
**Table 3.6 Percent of Mothers Who Smoked During Pregnancy for All Births and Low Birthweight by Age of Mother Calendar Years 1999-2001 (Low birthweight is defined as weight less than 2,500 grams [5lb., 8oz.])**

	Percent of Live Births <sup>1</sup> for Which the Mother Reported Smoking					Percent of Low Birthweight <sup>1</sup> for Which the Mother Reported Smoking				
	All Ages	Under 15 Years	15-19 Years	20-34 Years	35-54 Years	All Ages	Under 15 Years	15-19 Years	20-34 Years	35-54 Years
U.S. All Races (2000)	12.2	7.1	17.8	11.8	9.3	11.9	13.3	11.4	11.6	18.5
All IHS Areas	19.8	13.9	21.3	19.6	17.8	25.9	16.1	23.1	26.4	28.0
Aberdeen	34.0	26.2	31.5	34.9	34.0	37.3	0.0*	36.0	36.4	46.6*
Alaska	31.9	19.0	32.9	31.8	31.3	43.9	0.0*	34.0	45.6	50.7
Albuquerque	5.7	3.4	6.0	5.7	5.7	8.2	0.0*	7.8	7.3	14.0
Bemidji	37.9	22.2	39.8	37.9	33.9	47.3	0.0*	42.2	48.7	50.0
Billings	27.9	40.0	27.6	28.0	27.0	36.0	100.0*	26.3	38.6	32.5
California <sup>2</sup>	-*	-*	-*	-*	-*	-*	-*	-*	-*	-*
Nashville	22.1	10.0*	26.1	21.5	19.3	31.7	50.0*	20.5	33.1	41.5
Navajo	2.4	10.0	4.0	2.2	1.4	3.9	0.0*	6.4	3.7	2.1
Oklahoma	21.6	10.5	23.8	20.8	24.0	30.5	0.0*	29.4	30.6	35.5
Phoenix	8.0	6.3	7.0	7.9	10.9	12.1	0.0*	11.4	12.4	11.7
Portland	24.9	20.0	27.0	24.7	22.9	33.6	50.0*	28.7	33.8	40.0
Tucson	5.9	0.0*	3.5	6.5	7.5	6.1	0.0*	2.2	7.3	10.5*

- Represents zero.  
 \* Figure does not meet standards of reliability or precision.  
<sup>1</sup> Based on the number of live births with smoking status of the mother reported.  
<sup>2</sup> Excludes data for California, which did not require reporting of tobacco use during pregnancy.  
 NOTE: Excludes data for Indiana, New York State (but includes New York City) and South Dakota, which did not report average number of cigarettes smoked per day in standard categories.

During 1999-2001 mothers of AI/AN newborns were more likely to have diabetes than their counterparts in the U.S. all-races population in 2000. The 1999-2001 rate for AI/AN people was 1.7 times larger than the U.S. all-races rate (29.3 births to mothers with diabetes per 1,000 live births). For the AI/AN population, there were 49.0 births to mothers with diabetes per 1,000 of all live births (a one percent increase from the 1996-1998 rate of 48.3). The Area proportions ranged from 31.8 per 1,000 live births in California to 77.2 in Navajo.

**Chart 3.7 Birth Rates among Mothers with Diabetes, Calendar Years 1999-2001**



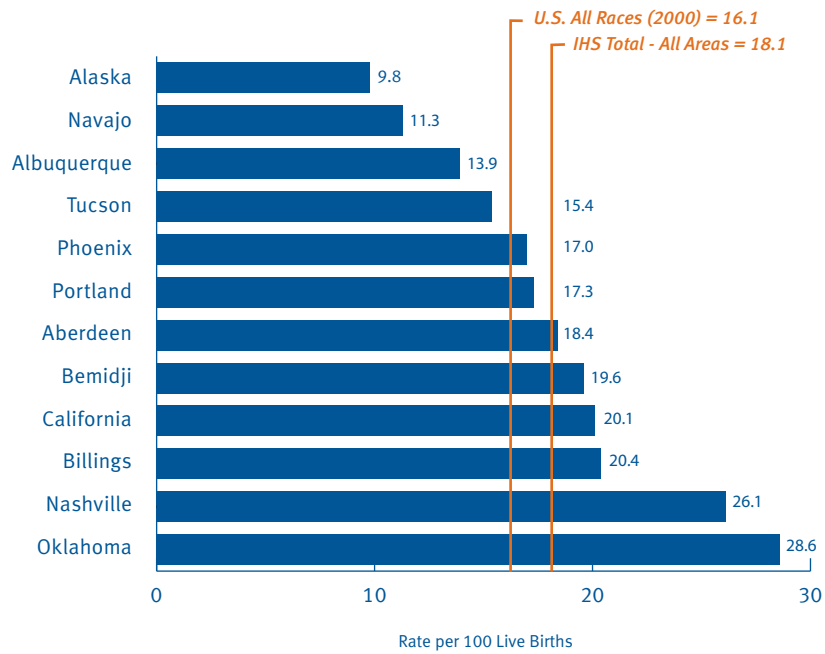
**Table 3.7 Rate<sup>1</sup> of Live Births among Mothers with Diabetes by Age of Mother Calendar Years 1999-2001**

	All Ages	Under 20 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-54 Years
<i>U.S. All Races (2000)</i>	<i>29.3</i>	<i>8.8</i>	<i>17.3</i>	<i>28.6</i>	<i>38.8</i>	<i>52.0</i>	<i>69.5</i>
<b>All IHS Areas</b>	<b>49.0</b>	<b>14.5</b>	<b>30.9</b>	<b>54.3</b>	<b>84.5</b>	<b>123.7</b>	<b>136.4</b>
Aberdeen	49.0	15.2	31.3	62.3	96.7	148.8	19.0
Alaska	32.2	8.1	18.0	35.3	50.3	73.6	95.7
Albuquerque	56.9	13.8	33.1	53.9	107.3	143.2	159.3
Bemidji	60.1	24.9	45.3	68.1	96.8	133.0	168.5
Billings	40.2	8.8	25.1	53.0	65.2	125.4	112.9
California	31.8	3.7	18.2	33.4	70.0	77.5	57.9
Nashville	57.4	22.6	49.9	57.7	66.9	133.2	112.1
Navajo	77.2	18.9	39.6	77.5	121.1	170.2	228.7
Oklahoma	42.2	16.1	29.0	49.0	85.2	109.3	115.8
Phoenix	54.7	16.3	31.3	63.5	93.4	143.0	148.1
Portland	37.0	8.2	25.2	42.3	57.7	88.9	119.0
Tucson	35.5	8.4	27.6	45.0	52.0	90.9	66.7

<sup>1</sup> Number of live births among mothers with diabetes per 1,000 live births with diabetes status reported in age group specified.

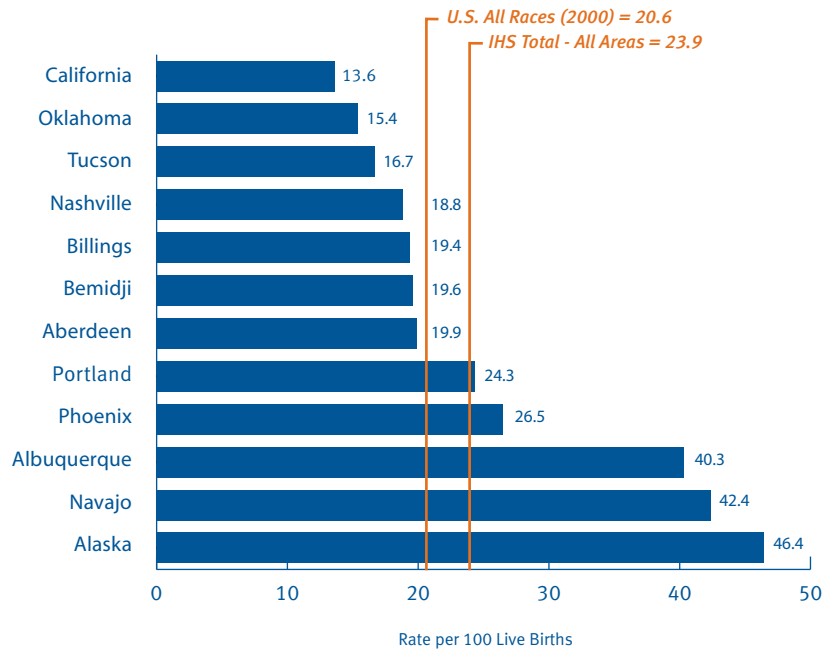
Mothers of AI/AN newborns have a 12 percent higher rate of cesarean deliveries than do women in the U.S. all-races population. The AI/AN rate of primary cesarean deliveries was 18.1 per 100 live births in 1999-2001, while the 2000 U.S. all-races rate was 16.1. Alaska (9.8), Navajo (11.3), Albuquerque (13.9), and Tucson (15.4) were less than the U.S. all-races rate.

**Chart 3.8 First Cesarean Delivery, Calendar Years 1999-2001**



Mothers of AI/AN newborns who had a cesarean delivery were 16 percent more likely to have a subsequent vaginal delivery (VBAC) than women in the U.S. all-races population. The AI/AN rate is 23.9 vaginal births per 100 live births to women with a prior cesarean delivery in 1999-2001 compared to a U.S. all-races rate of 20.6 in 2000. The rate ranged among IHS Areas from 13.6 in California to 46.4 in Alaska.

**Chart 3.9 Vaginal Births after Previous Cesarean Delivery (VBAC) Calendar Years 1999-2001**





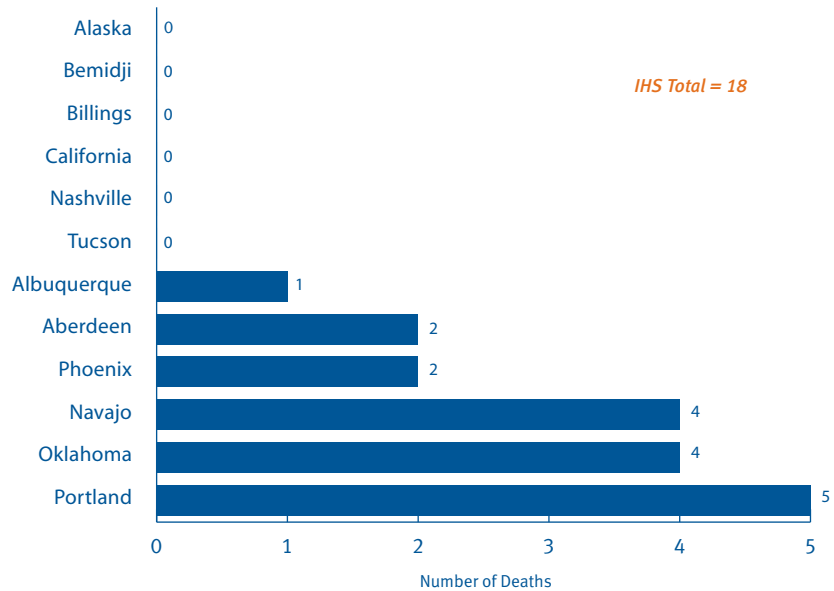
**Table 3.8** Rates of First Cesarean Delivery and Vaginal Birth after Previous Cesarean Delivery by Age of Mother, Calendar Years 1999–2001 (Rates per 100 live births)

	Rate of First Cesarean Delivery				Rate of Vaginal Births After Previous Cesarean (VBAC) Delivery			
	All Ages	Under 25 Years	25-34 Years	35-54 Years	All Ages	Under 25 Years	25-34 Years	35-54 Years
<i>U.S. All Races (2000)</i>	16.1	14.1	16.5	22.7	20.6	23.2	20.9	17.6
<b>All IHS Areas</b>	<b>18.1</b>	<b>15.7</b>	<b>20.2</b>	<b>30.6</b>	<b>23.9</b>	<b>24.4</b>	<b>23.8</b>	<b>23.1</b>
Aberdeen	18.4	15.3	22.4	38.7	19.9	22.1	19.2	14.9
Alaska	9.8	8.3	10.1	17.2	46.4	41.7	49.2	43.0
Albuquerque	13.9	11.5	15.5	25.2	40.3	49.1	39.3	32.2
Bemidji	19.6	17.1	21.8	38.1	19.6	22.4	18.6	15.8
Billings	20.4	18.9	19.7	43.9	19.4	19.9	19.4	18.2
California	20.1	16.9	21.9	43.7	13.6	17.1	12.7	10.1
Nashville	26.1	21.1	29.6	57.8	18.8	25.0	16.2	15.1
Navajo	11.3	10.5	12.1	19.5	42.4	42.6	42.6	41.8
Oklahoma	28.6	24.1	36.2	59.2	15.4	16.5	15.0	12.2
Phoenix	17.0	14.2	19.7	25.5	26.5	29.5	25.5	23.8
Portland	17.3	13.0	15.2	26.4	24.3	26.8	24.2	19.9
Tucson	15.4	15.7	20.2	28.1	16.7	20.3	17.2	4.2

NOTE: Rate of first cesarean delivery is computed by dividing the total number of such deliveries by the number of all women who have never had a cesarean delivery. The denominator for this rate includes all births less those with method of delivery classified as repeat cesarean, vaginal birth after previous cesarean, or method not stated.  
 Rate of vaginal births after previous cesarean delivery is computed by dividing the number of such deliveries by the sum of these deliveries plus repeat cesarean deliveries, that is, to women with a previous cesarean section.

There were 18 maternal death in the IHS service area population in 1999-2001. Portland had the highest number (five deaths) followed by Oklahoma and Navajo (four deaths).

**Chart 3.10** Maternal Deaths, Calendar Years 1999-2001



NOTE: IHS unadjusted numbers and numbers adjusted for race misreporting are the same.

The infant mortality rate for the IHS service area population in 1999-2001 was 8.8 deaths per 1,000 live births. The AI/AN rate is 28 percent higher than the U.S. all-races (6.9 deaths per 1,000 live births for 2000). Two IHS Areas (Aberdeen and Alaska) had rates exceeding the U.S. all-races rate by over 50 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

Chart 3.11 Infant Mortality Rates, Calendar Years 1999–2001

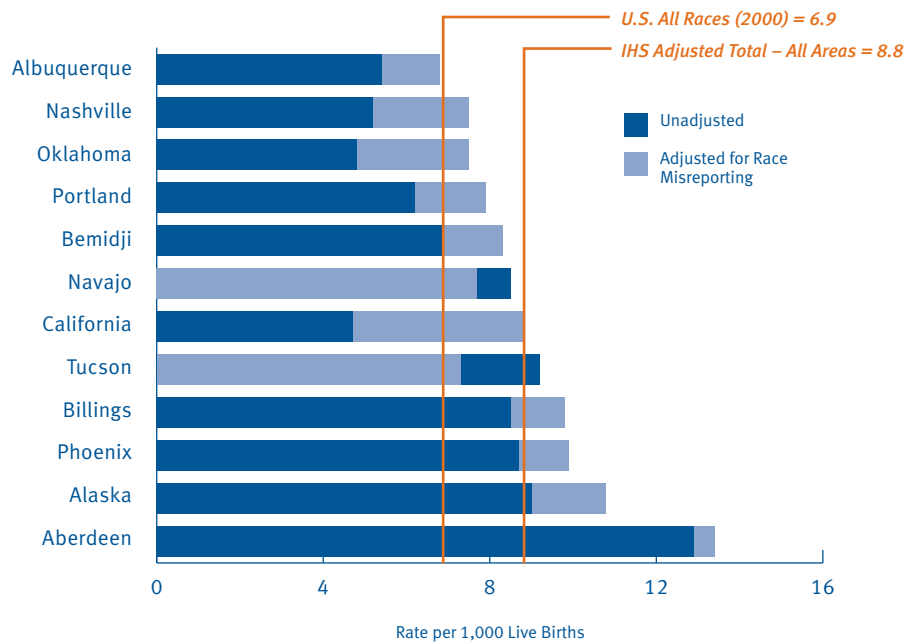


Table 3.11 Infant Mortality Rates (Under One Year), Calendar Years 1999–2001

	Live Births	Infant Deaths		Rate <sup>1</sup>	
		Unadjusted	Adjusted <sup>2</sup>	Unadjusted	Adjusted <sup>2</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>28,035</i>		<i>6.9</i>	
<b>All IHS Areas</b>	<b>109,088</b>	<b>789</b>	<b>955</b>	<b>7.2</b>	<b>8.8</b>
Aberdeen	8,809	114	118	12.9	13.4
Alaska	8,439	76	91	9.0	10.8
Albuquerque	5,584	30	38	5.4	6.8
Bemidji	6,966	48	58	6.9	8.3
Billings	4,599	39	45	8.5	9.8
California	7,306	34	64	4.7	8.8
Nashville	6,363	33	48	5.2	7.5
Navajo	13,634	116 <sup>3</sup>	105 <sup>3</sup>	8.5 <sup>3</sup>	7.7 <sup>3</sup>
Oklahoma	22,029	106	165	4.8	7.5
Phoenix	11,775	102	117	8.7	9.9
Portland	11,525	72	91	6.2	7.9
Tucson	2,059	19 <sup>3</sup>	15 <sup>3</sup>	9.2 <sup>3</sup>	7.3 <sup>3</sup>

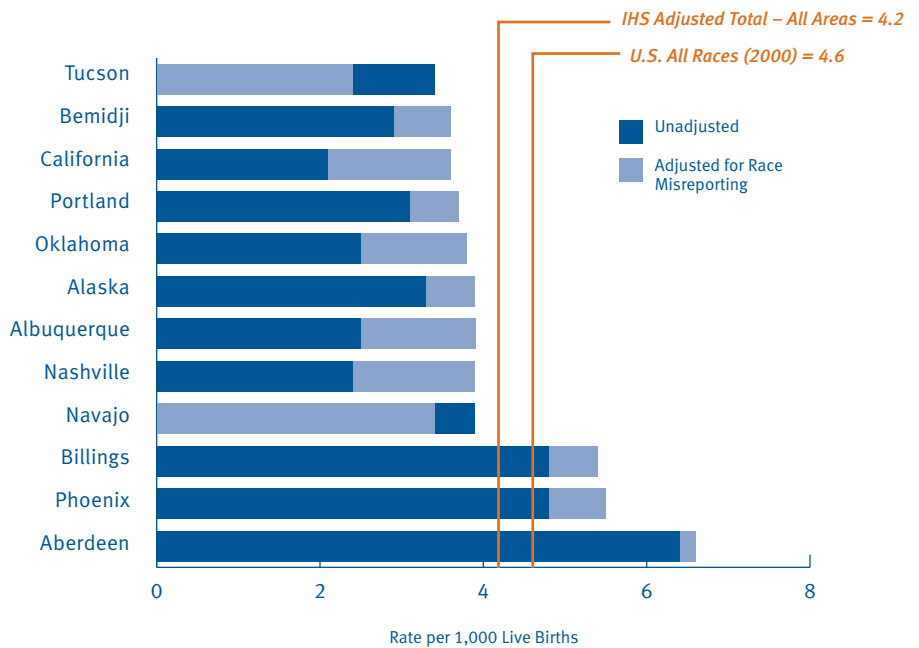
<sup>1</sup> Rate per 1,000 live births.

<sup>2</sup> Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

<sup>3</sup> For the Navajo and Tucson Areas, there were more American Indian and Alaska Native infant deaths identified through use of the state death certificate records (unadjusted data) than through use of match between state birth and deaths certificate records (adjusted data).

The neonatal mortality rate for the IHS service area population in 1999-2001 was 4.2 deaths per 1,000 live births. The AI/AN rate is 8.7 percent lower than the U.S. all-races rate of 4.6 deaths per 1,000 live births in 2000. Three IHS Areas (Aberdeen, Billings and Phoenix) had rates that exceeded the U.S. all-races rate. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.12 Neonatal Mortality Rates, Calendar Years 1999–2001**



**Table 3.12 Neonatal Mortality Rates (Under 28 Days), Calendar Years 1999–2001**

	Live Births	Infant Deaths		Rate <sup>1</sup>	
		Unadjusted	Adjusted <sup>2</sup>	Unadjusted	Adjusted <sup>2</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>18,776</i>		<i>4.6</i>	
<b>All IHS Areas</b>	<b>109,088</b>	<b>377</b>	<b>458</b>	<b>3.5</b>	<b>4.2</b>
Aberdeen	8,809	56	58	6.4	6.6
Alaska	8,439	28	33	3.3	3.9
Albuquerque	5,584	14	22	2.5	3.9
Bemidji	6,966	20	25	2.9	3.6
Billings	4,599	22	25	4.8	5.4
California	7,306	15	26	2.1	3.6
Nashville	6,363	15	25	2.4	3.9
Navajo	13,634	53 <sup>3</sup>	47 <sup>3</sup>	3.9 <sup>3</sup>	3.4 <sup>3</sup>
Oklahoma	22,029	54	84	2.5	3.8
Phoenix	11,775	57	65	4.8	5.5
Portland	11,525	36	43	3.1	3.7
Tucson	2,059	7 <sup>3</sup>	5 <sup>3</sup>	3.4 <sup>3</sup>	2.4 <sup>3</sup>

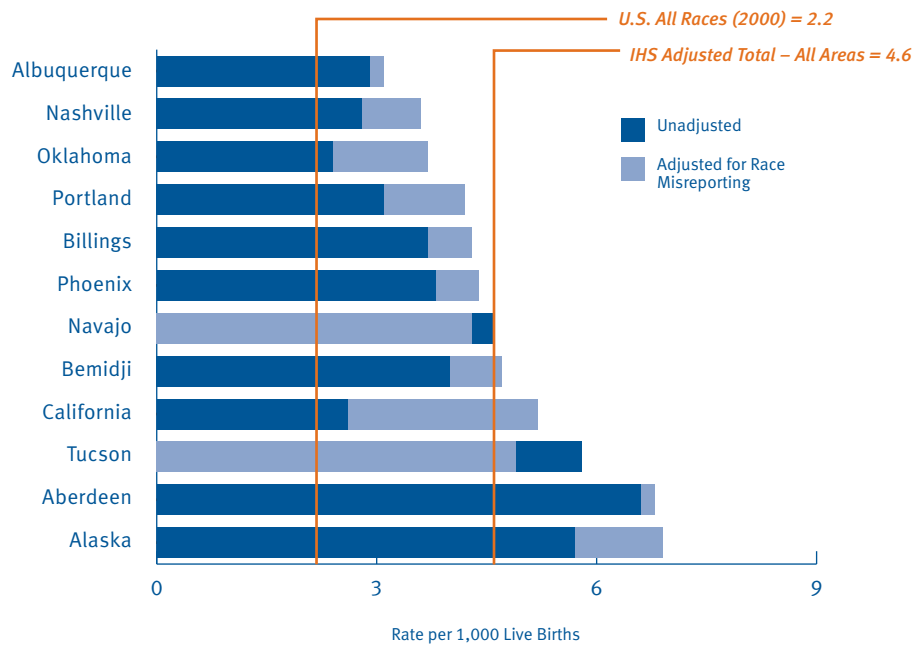
<sup>1</sup> Rate per 1,000 live births.

<sup>2</sup> Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

<sup>3</sup> The adjusted numbers and rates for neonatal deaths for Navajo and Tucson Areas are lower than the unadjusted numbers and rates because the linked birth/infant death file (used to obtain the adjusted counts for neonatal deaths) had six and two less deaths, respectively, than did the unadjusted mortality file for each IHS Area (1999-2001 data).

The postneonatal mortality rate for the IHS service area population in 1999-2001 was 4.6 deaths per 1,000 live births. The AI/AN rate is 2.1 times higher than the U.S. all-races rate of 2.2 deaths per 1,000 live births for 2000. The Alaska Area had the highest rate (6.9 deaths per 1,000 live births) among the IHS Areas followed by Aberdeen (6.8 deaths per 1,000 live births). The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.13 Postneonatal Mortality Rates, Calendar Years 1999–2001**



**Table 3.13 Postneonatal Mortality Rates (28 Days to Under One Year) Calendar Years 1999–2001**

	Live Births	Infant Deaths		Rate <sup>1</sup>	
		Unadjusted	Adjusted <sup>2</sup>	Unadjusted	Adjusted <sup>2</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>9,259</i>		<i>2.2</i>	
<b>All IHS Areas</b>	<b>109,088</b>	<b>412</b>	<b>497</b>	<b>3.8</b>	<b>4.6</b>
Aberdeen	8,809	58	60	6.6	6.8
Alaska	8,439	48	58	5.7	6.9
Albuquerque	5,584	16	16	2.9	2.9
Bemidji	6,966	28	33	4.0	4.7
Billings	4,599	17	20	3.7	4.3
California	7,306	19	38	2.6	5.2
Nashville	6,363	18	23	2.8	3.6
Navajo	13,634	63 <sup>3</sup>	58 <sup>3</sup>	4.6 <sup>3</sup>	4.3 <sup>3</sup>
Oklahoma	22,029	52	81	2.4	3.7
Phoenix	11,775	45	52	3.8	4.4
Portland	11,525	36	48	3.1	4.2
Tucson	2,059	12 <sup>3</sup>	10 <sup>3</sup>	5.8 <sup>3</sup>	4.9 <sup>3</sup>

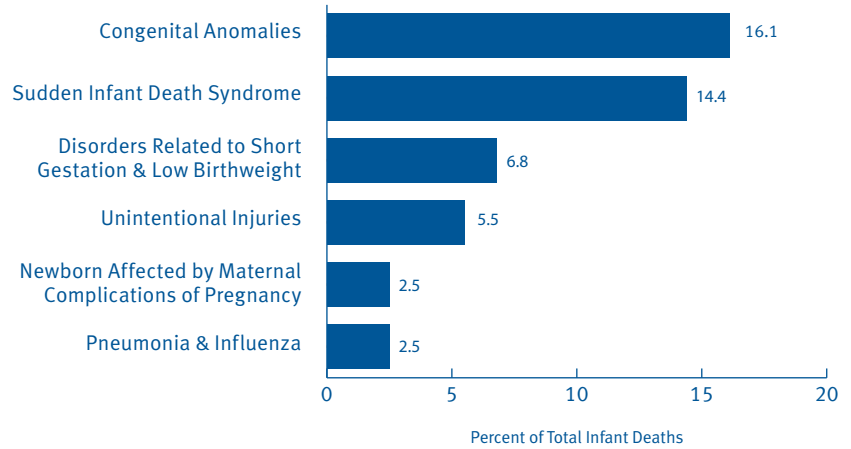
<sup>1</sup> Rate per 1,000 live births.

<sup>2</sup> Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

<sup>3</sup> The adjusted numbers and rates for postneonatal deaths for the Navajo and Tucson Areas are lower than the unadjusted numbers and rates because the linked birth/infant death file (used to obtain the adjusted counts for postneonatal deaths) had five and two less deaths than, respectively, did the unadjusted mortality file for each IHS Area (1999-2001 data).

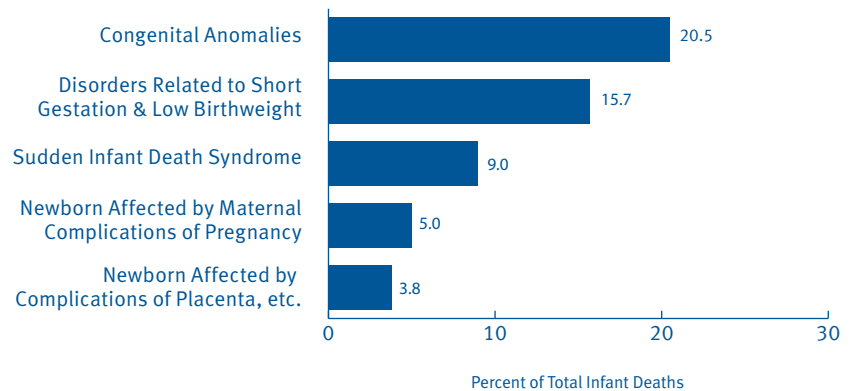
In 1999-2001, 16.1 percent of all infant deaths in the IHS service area were caused by congenital anomalies. This was followed by sudden infant death syndrome (14.4 percent), disorders related to short gestation and low birthweight (6.8 percent), unintentional injuries (5.5 percent), newborn affected by maternal complications of pregnancy and pneumonia and influenza, both at 2.5 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.14** Leading Causes of Infant Deaths, All IHS Areas, Calendar Years 1999–2001



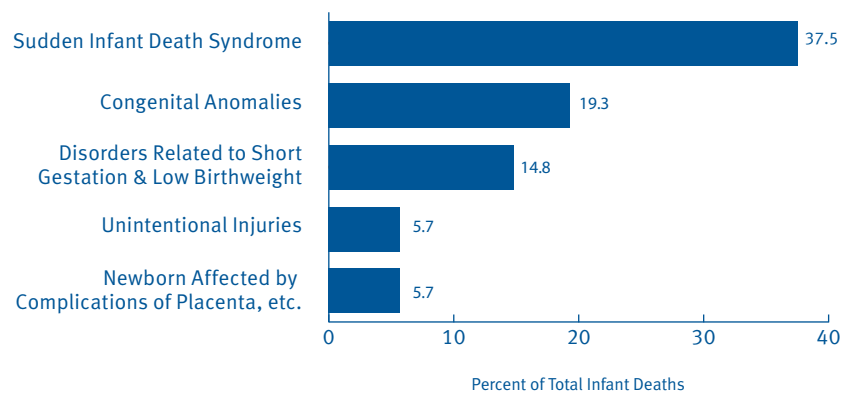
In 2000, 20.5 percent of all infant deaths in the U.S. were caused by congenital anomalies, followed by disorders related to short gestation and low birthweight at 15.7 percent.

**Chart 3.15** Leading Causes of Infant Deaths, U.S. All Races, Calendar Year 2000



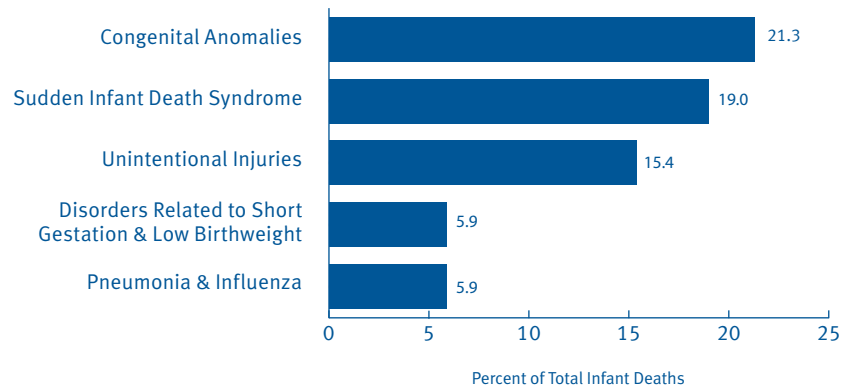
In 1999-2001, 37.5 percent of all infant deaths in the **Aberdeen Area** were caused by sudden infant death syndrome, followed by congenital anomalies at 19.3 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.16** Leading Causes of Infant Deaths, Aberdeen Area, Calendar Years 1999–2001



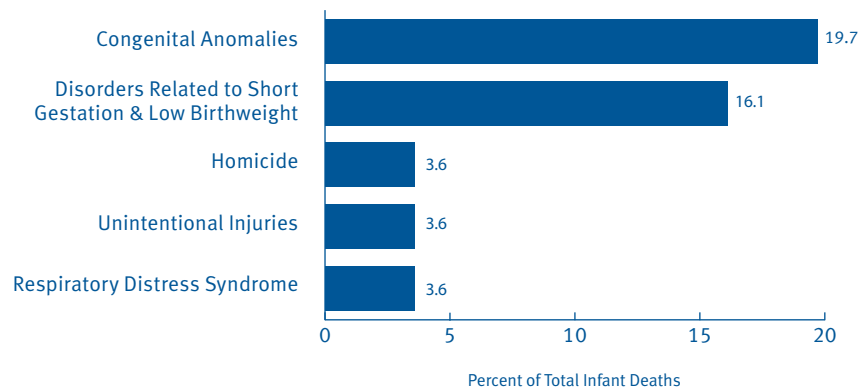
In 1999-2001, 21.3 percent of all infant deaths in the **Alaska Area** were caused by congenital anomalies, followed by sudden infant death syndrome at 19.0 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.17** Leading Causes of Infant Deaths, Alaska Area, Calendar Years 1999–2001



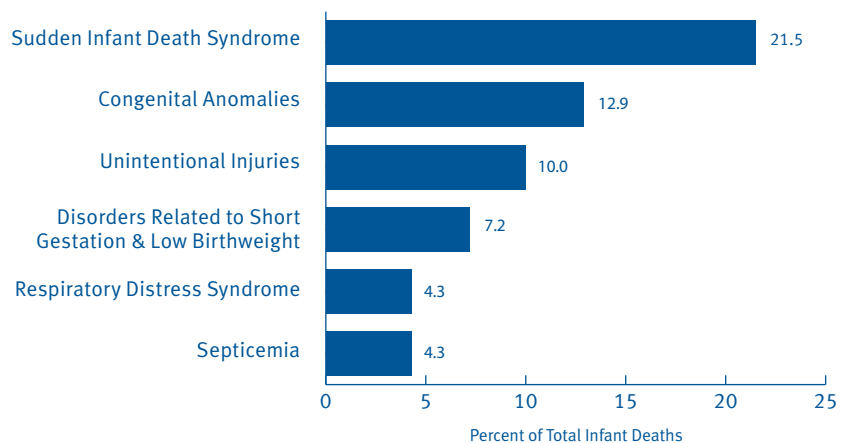
In 1999-2001, 19.7 percent of all infant deaths in the **Albuquerque Area** were caused by congenital anomalies, followed by disorders related to short gestation and low birthweight at 16.1 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.18** Leading Causes of Infant Deaths, Albuquerque Area, Calendar Years 1999–2001



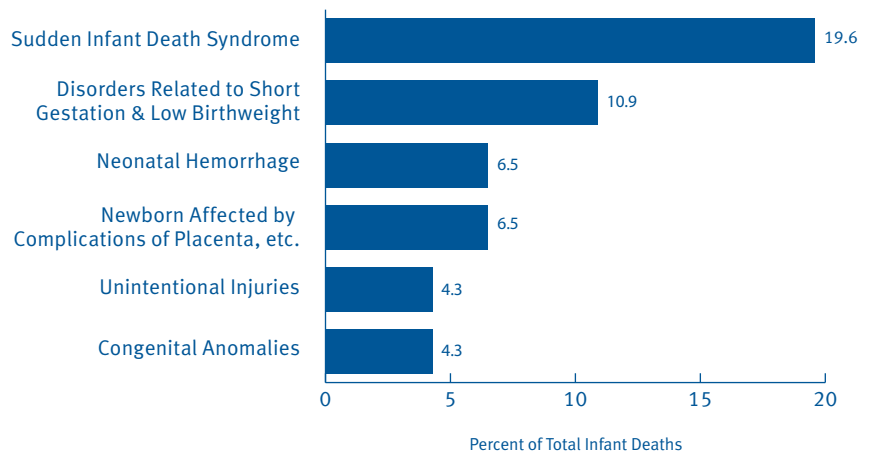
In 1999-2001, 21.5 percent of all infant deaths in the **Bemidji Area** were caused by sudden infant death syndrome, followed by congenital anomalies at 12.9 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.19** Leading Causes of Infant Deaths, Bemidji Area, Calendar Years 1999–2001



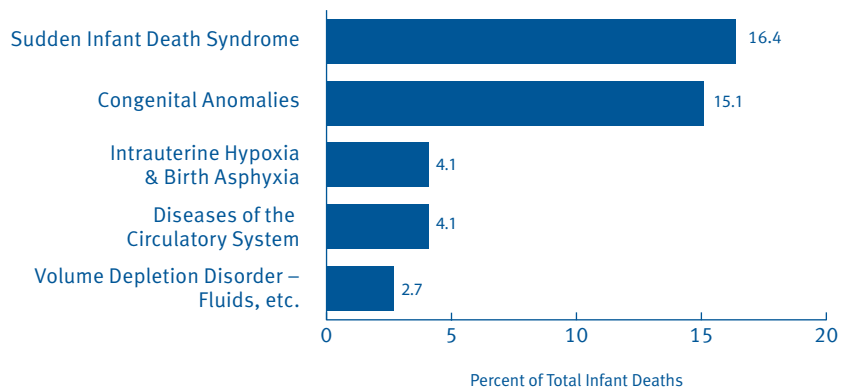
In 1999-2001, 19.6 percent of all infant deaths in the **Billings Area** were caused by sudden infant death syndrome, followed by disorders related to short gestation and low birthweight at 10.9 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.20** Leading Causes of Infant Deaths, Billings Area, Calendar Years 1999–2001



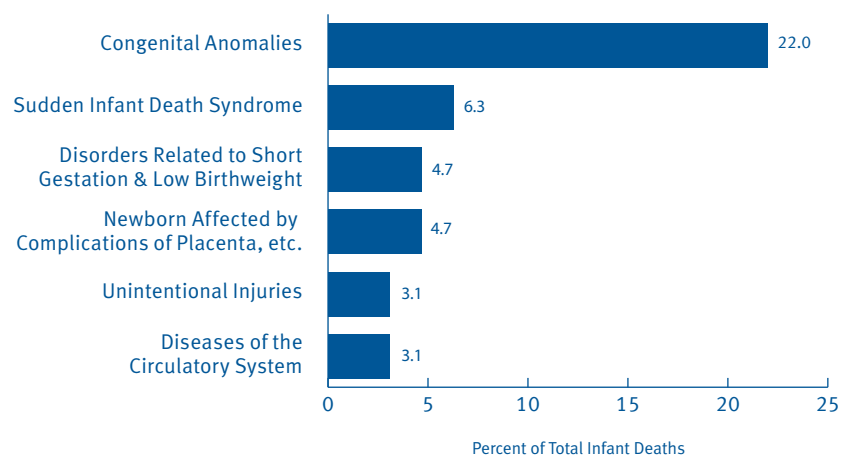
In 1999-2001, 16.4 percent of all infant deaths in the **California Area** were caused by sudden infant death syndrome, followed by congenital anomalies at 15.1 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.21** Leading Causes of Infant Deaths, California Area, Calendar Years 1999–2001



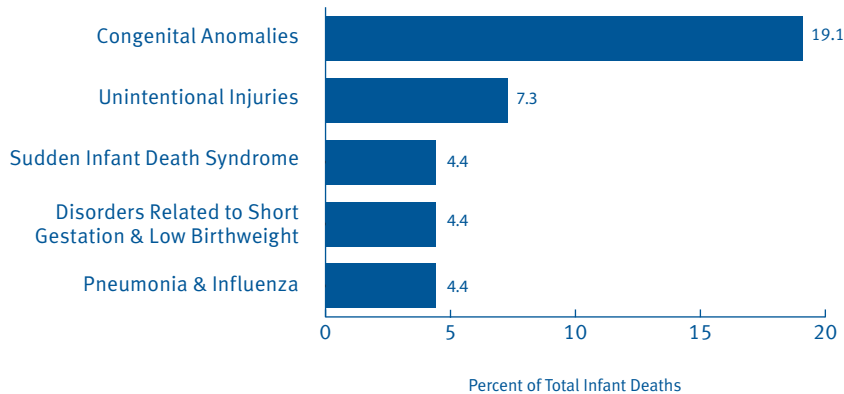
In 1999-2001, 22.0 percent of all infant deaths in the **Nashville Area** were caused by congenital anomalies, followed by sudden infant death syndrome (6.3 percent). Both disorders related to short gestation and low birth weight and newborns affected by complications of placenta, etc. followed at 4.7 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.22** Leading Causes of Infant Deaths, Nashville Area, Calendar Years 1999–2001



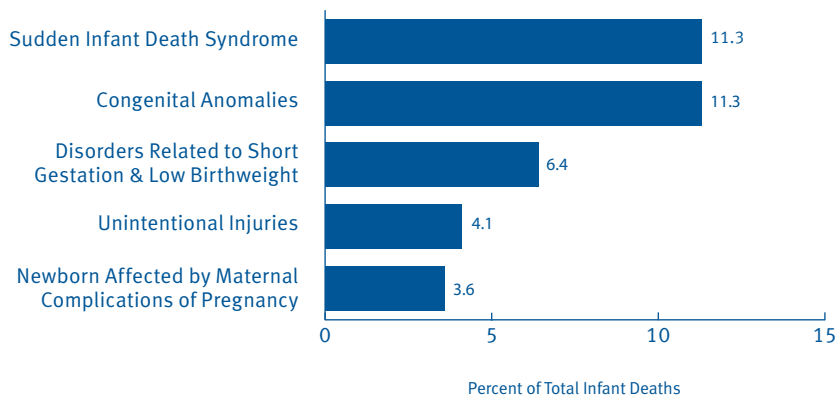
In 1999-2001, 19.1 percent of all infant deaths in the **Navajo Area** were caused by congenital anomalies, followed by unintentional injuries at 7.3 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.23** Leading Causes of Infant Deaths, Navajo Area, Calendar Years 1999–2001



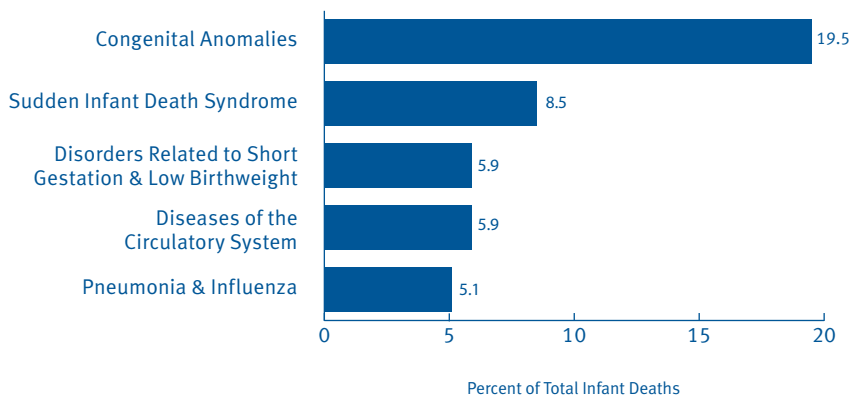
In 1999-2001, sudden infant death syndrome and congenital anomalies were the leading causes of infant deaths at 11.3 percent for the **Oklahoma Area**, followed by disorders related to short gestation and low birthweight at 6.4 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.24** Leading Causes of Infant Deaths, Oklahoma Area, Calendar Years 1999–2001



In 1999-2001, 19.5 percent of all infant deaths in the **Phoenix Area** were caused by congenital anomalies, followed by sudden infant death syndrome at 8.5 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

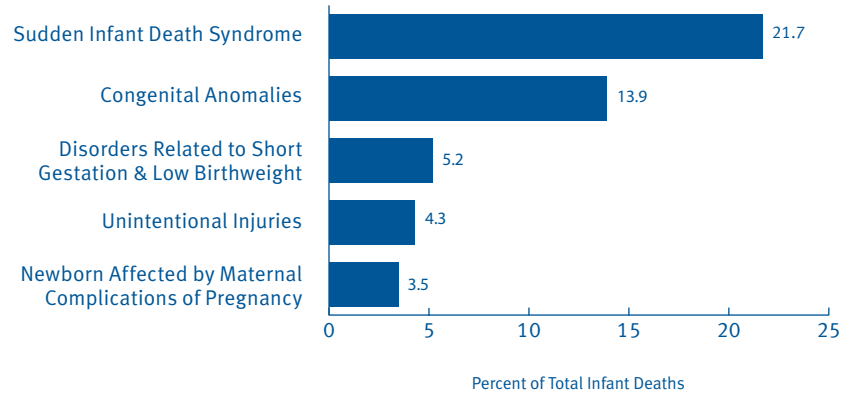
**Chart 3.25** Leading Causes of Infant Deaths, Phoenix Area, Calendar Years 1999–2001





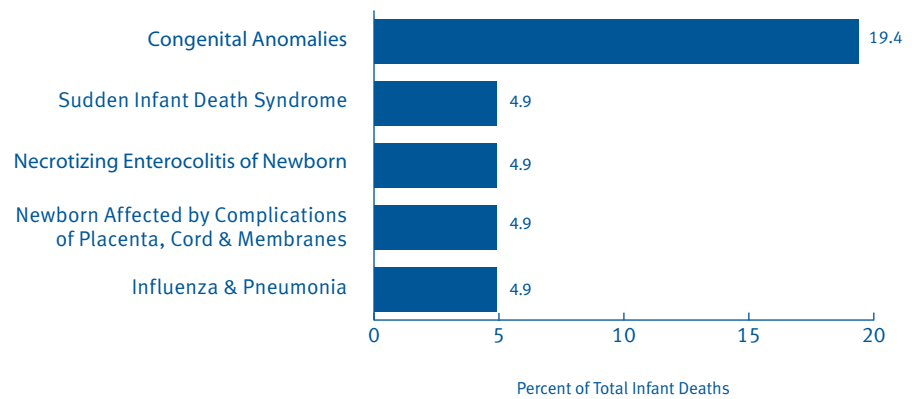
In 1999-2001, 21.7 percent of all infant deaths in the **Portland Area** were caused by sudden infant death syndrome, followed by congenital anomalies at 13.9 percent. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.26** Leading Causes of Infant Deaths, Portland Area, Calendar Years 1999–2001



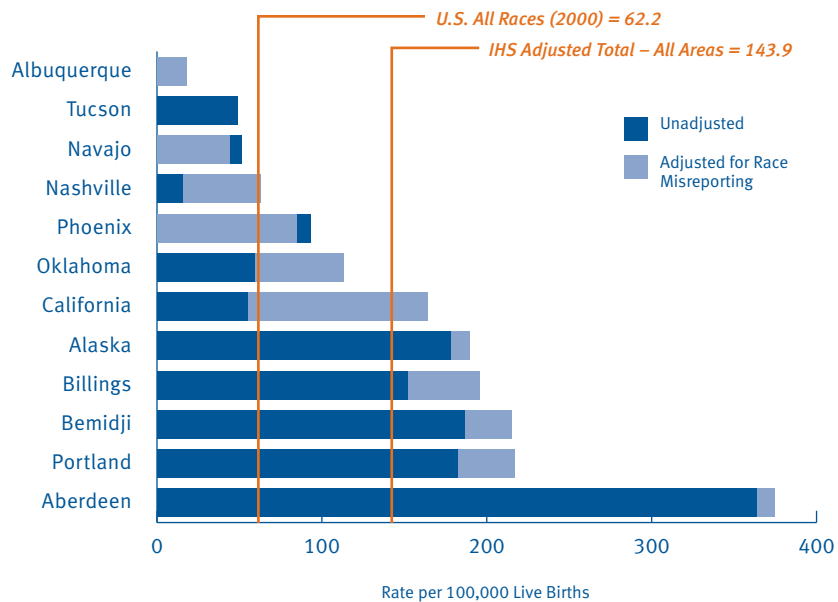
In 1999-2001, 19.4 percent of all infant deaths in the **Tucson Area** were caused by congenital anomalies. The following leading causes of deaths: sudden infant death syndrome; necrotizing enterocolitis of newborn; newborn affected by complications of placenta, cord and membranes; and influenza and pneumonia were equal each at 4.9 percent. The number of infant deaths for the Tucson Area is very small therefore these rates should be interpreted with caution. The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.27** Leading Causes of Infant Deaths, Tucson Area, Calendar Years 1999–2001



In 1999-2001, the mortality rate for sudden infant death syndrome (SIDS) for the IHS service area population was 2.3 times the rate for the U.S. all-races population in 2000 (62.2 and 143.9, respectively). The rate is adjusted for misreporting of AI/AN race on the state death certificate.

**Chart 3.28 Sudden Infant Death Syndrome (SIDS) Rates  
Calendar Years 1999–2001**



**Table 3.28 Sudden Infant Death Syndrome (SIDS) Rates, Calendar Years 1999–2001**

	Live Births	Infant Deaths		Rate <sup>1</sup>	
		Unadjusted	Adjusted <sup>2</sup>	Unadjusted	Adjusted <sup>2</sup>
<i>U.S. All Races (2000)</i>	<i>4,058,814</i>	<i>2,523</i>		<i>62.2</i>	
<b>All IHS Areas</b>	<b>109,088</b>	<b>125</b>	<b>157</b>	<b>114.6</b>	<b>143.9</b>
Aberdeen	8,809	32	33	363.3	374.6
Alaska	8,439	15	16	177.7	189.6
Albuquerque	5,584	0	1	0.0	17.9
Bemidji	6,966	13	15	186.6	215.3
Billings	4,599	7	9	152.2	195.7
California	7,306	4	12	54.7	164.2
Nashville	6,363	1	4	15.7	62.9
Navajo	13,634	7 <sup>3</sup>	6 <sup>3</sup>	51.3 <sup>3</sup>	44.0 <sup>3</sup>
Oklahoma	22,029	13	25	59.0	113.5
Phoenix	11,775	11 <sup>3</sup>	10 <sup>3</sup>	93.4 <sup>3</sup>	84.9 <sup>3</sup>
Portland	11,525	21	25	182.2	216.9
Tucson	2,059	1	1	48.6	48.6

<sup>1</sup> Rate per 100,000 live births.

<sup>2</sup> Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

<sup>3</sup> The adjusted numbers and rates (Navajo and Phoenix Areas) are lower than the unadjusted numbers and rates because the linked birth/infant death file (used to obtain the adjusted counts for infant deaths) had one less death for this cause than did the unadjusted mortality file for each IHS area (1999-2001 data).