

# FETAL, INFANT, AND CHILD DEATHS



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## In 2009...

- 47 fetal deaths occurred to Alaskan mothers. From 2007-2009, the fetal death rate was 4.4 deaths per 1,000 births and fetal deaths.
- 76 infant deaths occurred to Alaska residents. From 2007-2009 the infant death rate was 6.3 infant deaths per 1,000 births.
- 31 infants died during the neonatal period. The leading cause of neonatal infant death was due to congenital malformations, deformations, and chromosomal abnormalities.
- 45 infants died during the postneonatal period. The leading cause of postneonatal infant death was Sudden Infant Death Syndrome.
- 75 children between the ages of 1 and 19 died. The leading cause of death among children was due to unintentional injuries (accidents).

## Fetal and Infant Death Summary<sup>1</sup>

A fetal death is defined as death before the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy.<sup>2</sup> The number of fetal deaths increased from 37 in 2008 to 47 in 2009.

The fetal death rate is the number of fetal deaths per 1,000 live births and fetal deaths.<sup>3</sup> From 2007-2009, the Alaska fetal death rate was 4.4.

In 2009, 76 infant deaths occurred to Alaska mothers. The infant mortality rate (IMR) is the number of infant deaths per 1,000 live infant births for a given calendar year.<sup>3</sup> From 2007-2009, the infant mortality rate for Alaska Natives was more than twice that of white mothers.

**Table 12: Fetal Mortality Rates by Race (1998-2009)**

|               | 98-00      | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06      | 05-07      | 06-08      | 07-09      |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Native        | 4.2        | 4.1        | 4.2        | 4.2        | 4.2        | 3.9        | 5.2        | 6.8        | 6.4        | 4.7        |
| White         | 4.4        | 4.1        | 3.6        | 4.0        | 4.8        | 4.7        | 3.9        | 3.5        | 3.3        | 3.5        |
| <b>Alaska</b> | <b>4.7</b> | <b>4.7</b> | <b>4.7</b> | <b>5.3</b> | <b>5.7</b> | <b>5.3</b> | <b>4.9</b> | <b>5.1</b> | <b>4.6</b> | <b>4.4</b> |

**Table 13: Number of Infant Deaths by Race (1998-2009)**

|               | 98-00      | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06      | 05-07      | 06-08      | 07-09      |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Native        | 70         | 90         | 84         | 79         | 70         | 72         | 80         | 84         | 100        | 98         |
| White         | 97         | 102        | 103        | 106        | 98         | 98         | 93         | 89         | 82         | 82         |
| <b>Alaska</b> | <b>184</b> | <b>205</b> | <b>206</b> | <b>210</b> | <b>196</b> | <b>200</b> | <b>206</b> | <b>206</b> | <b>213</b> | <b>212</b> |

**Table 14: Infant Mortality Rates by Race (1998-2009)**

|               | 98-00      | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06      | 05-07      | 06-08      | 07-09      |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Native        | 9.6        | 12.2       | 11.4       | 10.7       | 9.4        | 9.3        | 10.0       | 10.3       | 12.0       | 11.4       |
| White         | 5.0        | 5.3        | 5.5        | 5.6        | 5.1        | 5.1        | 4.7        | 4.5        | 4.0        | 4.0        |
| <b>Alaska</b> | <b>6.2</b> | <b>6.8</b> | <b>6.9</b> | <b>7.0</b> | <b>6.5</b> | <b>6.5</b> | <b>6.5</b> | <b>6.3</b> | <b>6.4</b> | <b>6.3</b> |

<sup>1</sup> Due to the low number of reportable events of Asian/PI and black deaths, only the two predominant races in Alaska (Native and white) are reported.

<sup>2</sup> Alaska Statute 18.50.240 requires the filing of a fetal death certificate for each death that occurs where the pregnancy has lasted at least twenty weeks. This table only includes information in which the estimated gestation is at least twenty weeks.

<sup>3</sup> A few additional (or less) infant deaths in Alaska can cause large fluctuations in the fetal death rate and the infant mortality rate from one year to the next. Therefore, Alaska's fetal death rate and infant mortality rates are calculated on a three-year moving average in order to provide a more reasonable basis for comparison.

## Neonatal Infant Deaths<sup>1,2</sup>

Neonatal deaths are deaths of infants under 28 days of age. These deaths are frequently associated with circumstances related to pregnancy and delivery. In 2009, 31 infants died within the neonatal period.

The neonatal infant mortality rate (IMR) is the number of neonatal infant deaths per 1,000 live infant births for a given calendar year. From 2007-2009, the neonatal infant mortality rate was 2.6

deaths per 1,000 births. During this period, Alaska Native infants were almost twice as likely to die during the neonatal period than white infants.

From 2005-2009, congenital malformations, deformations, and chromosomal abnormalities was the leading cause of neonatal death.

**Table 15: Number of Neonatal Deaths by Race (1998-2009)**

|               | 98-00     | 99-01     | 00-02     | 01-03     | 02-04     | 03-05      | 04-06      | 05-07      | 06-08      | 07-09     |
|---------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|-----------|
| Native        | 31        | 31        | 28        | 22        | 30        | 33         | 36         | 31         | 33         | 31        |
| White         | 56        | 61        | 58        | 59        | 47        | 50         | 48         | 49         | 45         | 38        |
| <b>Alaska</b> | <b>93</b> | <b>98</b> | <b>93</b> | <b>91</b> | <b>89</b> | <b>100</b> | <b>109</b> | <b>106</b> | <b>100</b> | <b>89</b> |

**Table 16: Neonatal Infant Mortality Rates by Race (1998-2009)**

|               | 98-00      | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06      | 05-07      | 06-08      | 07-09      |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Native        | 4.3        | 4.2        | 3.8        | 3.0        | 4.0        | 4.3        | 4.5        | 3.8        | 3.9        | 3.6        |
| White         | 2.9        | 3.2        | 3.1        | 3.1        | 2.5        | 2.6        | 2.4        | 2.5        | 2.2        | 1.8        |
| <b>Alaska</b> | <b>3.1</b> | <b>3.3</b> | <b>3.1</b> | <b>3.0</b> | <b>2.9</b> | <b>3.2</b> | <b>3.4</b> | <b>3.3</b> | <b>3.0</b> | <b>2.6</b> |

**Table 17: Number of Neonatal Deaths by Cause (2005-2009)**

|   | 2005      | 2006      | 2007      | 2008      | 2009      |
|---|-----------|-----------|-----------|-----------|-----------|
| Congenital malformations, deformations and chromosomal abnormalities                | 8         | 8         | 12        | 8         | 8         |
| Disorders related to short gestation and low birth weight, not elsewhere classified | 5         | 6         | 5         | 5         | 5         |
| Newborn affected by maternal complications of pregnancy                             | 7         | 8         | 1         | 0         | 0         |
| Newborn affected by complications of placenta, cord, and membranes                  | 1         | 6         | 0         | 4         | 1         |
| Other   | 10        | 14        | 15        | 8         | 17        |
| <b>Total</b>  | <b>31</b> | <b>42</b> | <b>33</b> | <b>25</b> | <b>31</b> |

<sup>1</sup> Due to the low number of reportable events of Asian/PI and black deaths, only the two predominant races in Alaska (Native and white) are reported.

<sup>2</sup> A few additional (or less) infant deaths in Alaska can cause large fluctuations in the infant mortality rate from one year to the next. Therefore, Alaska's neonatal infant mortality rates are calculated on a three-year moving average in order to provide a more reasonable basis for comparison.

**Postneonatal Infant Deaths<sup>1,2</sup>**

Postneonatal deaths are deaths of infants between 28 and 364 days of age. These deaths are frequently associated with living conditions. In 2009, 45 infants died within the postneonatal period.

The postneonatal infant mortality rate (IMR) is the number of postneonatal infant deaths per 1,000 live infant births for a given calendar year. From 2007-2009, the postneonatal infant mortality rate was 3.6 deaths per 1,000 births.

During this period, Alaska Native infants were more than three times as likely to die during the postneonatal period than white infants.

From 2005-2009, Sudden Infant Death Syndrome was the leading cause of postneonatal death.

**Table 18: Number of Postneonatal Deaths by Race (1998-2009)**

|               | 98-00     | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06     | 05-07      | 06-08      | 07-09      |
|---------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| Native        | 39        | 59         | 56         | 57         | 40         | 39         | 44        | 53         | 67         | 67         |
| White         | 41        | 41         | 45         | 47         | 51         | 48         | 45        | 40         | 37         | 44         |
| <b>Alaska</b> | <b>91</b> | <b>107</b> | <b>113</b> | <b>119</b> | <b>107</b> | <b>100</b> | <b>97</b> | <b>100</b> | <b>113</b> | <b>123</b> |

**Table 19: Postneonatal Infant Mortality Rates by Race (1998-2009)**

|               | 98-00      | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06      | 05-07      | 06-08      | 07-09      |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Native        | 5.3        | 8.0        | 7.6        | 7.7        | 5.4        | 5.0        | 5.5        | 6.5        | 8.0        | 7.8        |
| White         | 2.1        | 2.1        | 2.4        | 2.5        | 2.7        | 2.5        | 2.3        | 2.0        | 1.8        | 2.1        |
| <b>Alaska</b> | <b>3.0</b> | <b>3.6</b> | <b>3.8</b> | <b>4.0</b> | <b>3.5</b> | <b>3.2</b> | <b>3.1</b> | <b>3.1</b> | <b>3.4</b> | <b>3.6</b> |

**Table 20: Number of Postneonatal Infant Deaths by Cause (2005-2009)**

|   | 2005      | 2006      | 2007      | 2008      | 2009      |
|---|-----------|-----------|-----------|-----------|-----------|
| Sudden infant death syndrome  | 2         | 10        | 5         | 9         | 21        |
| Accidents (unintentional injuries)                                    | 10        | 10        | 12        | 3         | 5         |
| Congenital malformations, deformations, and chromosomal abnormalities | 6         | 1         | 4         | 6         | 5         |
| Other   | 11        | 14        | 15        | 24        | 14        |
| <b>Total</b>  | <b>29</b> | <b>35</b> | <b>36</b> | <b>42</b> | <b>45</b> |

<sup>1</sup> Due to the low number of reportable events of Asian/PI and black deaths, only the two predominant races in Alaska (Native and white) are reported.

<sup>2</sup> A few additional (or less) infant deaths in Alaska can cause large fluctuations in the infant mortality rate from one year to the next. Therefore, Alaska's postneonatal infant mortality rates are calculated on a three-year moving average in order to provide a more reasonable basis for comparison.

## Child Mortality Summary<sup>1</sup>

The Under 5 mortality rate measures how many deaths occur to children before their fifth birthday. For every 1,000 births, about 7 Alaskan children did not reach their fifth birthday from 2007-2009. Young Alaska Native children are more than twice as likely to die before their fifth birthday than their white counterparts.

Mortality rates for children between the ages of 5 and 19 are calculated on an age-specific basis. From 2007-

2009, approximately 20 Alaskan children died for every 100,000 population. Native children between the ages 5 and 14 are roughly three times as likely to die than their white counterparts.

From 2007-2009, approximately 87 Alaskan teenagers died for every 100,000 population. Native teenagers (15-19) are more than two and one-half times as likely to die than their white counterparts.

**Table 21: Child Under 5 Mortality Rates by Race (1998-2009)**

|               | 98-00      | 99-01      | 00-02      | 01-03      | 02-04      | 03-05      | 04-06      | 05-07      | 06-08      | 07-09      |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Native        | 13.7       | 16.8       | 15.6       | 14.8       | 13.0       | 12.7       | 11.9       | 12.2       | 14.1       | 13.9       |
| White         | 6.0        | 6.4        | 6.4        | 6.5        | 6.2        | 6.0        | 5.5        | 4.9        | 5.0        | 5.0        |
| <b>Alaska</b> | <b>7.9</b> | <b>8.8</b> | <b>8.7</b> | <b>8.7</b> | <b>8.2</b> | <b>8.1</b> | <b>7.7</b> | <b>7.3</b> | <b>7.6</b> | <b>7.6</b> |

**Table 22: Child (5-14) Mortality Rates by Race (1998-2009)**

|               | 98-00       | 99-01       | 00-02       | 01-03       | 02-04       | 03-05       | 04-06       | 05-07       | 06-08       | 07-09       |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Native        | 39.5        | 43.7        | 50.8        | 49.0        | 48.4        | 43.6        | 50.0        | 53.3        | 55.1        | 46.4        |
| White         | 19.6        | 19.0        | 22.6        | 25.9        | 25.5        | 25.6        | 24.7        | 22.4        | 19.0        | 13.4        |
| <b>Alaska</b> | <b>23.1</b> | <b>22.7</b> | <b>26.5</b> | <b>30.3</b> | <b>30.8</b> | <b>30.3</b> | <b>29.2</b> | <b>28.7</b> | <b>26.5</b> | <b>20.8</b> |

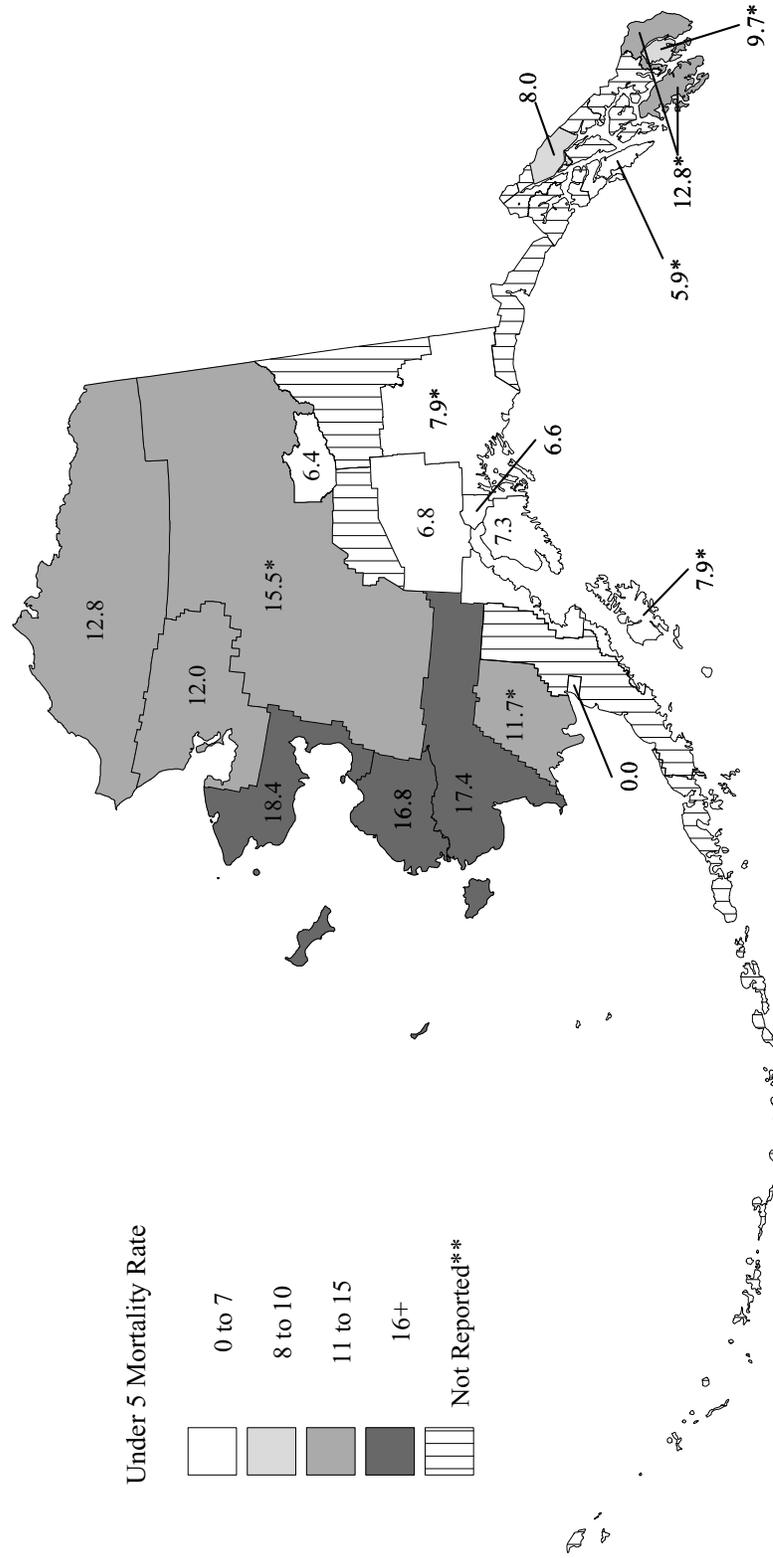
**Table 23: Child (15-19) Mortality Rates by Race (1998-2009)**

|               | 98-00        | 99-01        | 00-02        | 01-03        | 02-04        | 03-05        | 04-06       | 05-07       | 06-08       | 07-09       |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|
| Native        | 275.1        | 268.5        | 226.7        | 217.4        | 220.8        | 235.0        | 202.0       | 192.1       | 180.0       | 175.9       |
| White         | 70.1         | 76.4         | 77.6         | 70.5         | 74.1         | 68.2         | 64.9        | 58.4        | 62.9        | 65.7        |
| <b>Alaska</b> | <b>115.0</b> | <b>117.9</b> | <b>108.2</b> | <b>100.1</b> | <b>105.9</b> | <b>106.5</b> | <b>98.5</b> | <b>90.5</b> | <b>89.1</b> | <b>87.6</b> |

<sup>1</sup> Due to the low number of reportable events of Asian/PI and black deaths, only the two predominant races in Alaska (Native and white) are reported.



## Under 5 Mortality Rates by Census Area or Borough 2000-2009



\*Rates based on fewer than 20 occurrences are statistically unreliable and should be used with caution.

\*\*Rates based on fewer than 6 occurrences are not reported.