



# **Alaska Bureau of Vital Statistics 2003 Annual Report**

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# PREFACE

## PURPOSE OF THIS REPORT

The Alaska Bureau of Vital Statistics 2003 Annual Report was written by the Research Unit staff of the Alaska Bureau of Vital Statistics. This report contains data on births, fetal and infant deaths, adoptions, marriages and divorces, and deaths. The purpose of this report is to provide reference material and indicators for health and vital events in Alaska. Other data sources for analyzing public health trends are also available from the Alaska Department of Health and Social Services.

## HOW THIS REPORT IS ORGANIZED

### Table of Contents

The table of contents contains chapter headings and major sections, and lists of tables, charts, and maps.

### Preface

This section describes the organization of this report.

### Executive Summary

The executive summary includes population estimates and numbers and rates of vital events (births, deaths, marriages, divorces, and adoptions) in Alaska for the 2003 calendar year.

### Introduction

The introduction provides an overview of Alaska, information on population and demographics, and an explanation of how vital statistics are collected and recorded.

### Births

The birth section includes tables showing numbers of births by census area (borough) and Native Regional Corporation, birth characteristics of babies, and demographic and behavioral information on parents.

### Fetal and Infant Deaths

This chapter includes tables showing fetal deaths by census area (borough) and Native Regional Corporation, and deaths and mortality rates for infants up to one year of age by census areas, Native Regional Corporations, and causes of death.

### Child and Adolescent Deaths

This chapter provides specific information on deaths to children from birth through 19 years of age.

### Deaths

This section includes information on all deaths by census area (borough) and Native Regional Corporation; death rates; causes of death; and age, gender, and race of decedents.

### Adoptions

The adoption chapter provides information on census areas (borough) and Native Regional Corporation boundaries where adoption decrees were granted; adoptions by age, race, and type of adoption.

### Marriages and Divorces

This chapter provides information on the number and rates of marriages and divorces by residence and census area (borough) of occurrence.

### Appendices

The appendices include definitions of terms, technical notes, classification of causes of death, prenatal care index, Year 2010 Health Objectives, geographic overview, sample certificates, and population statistics.

## HOW TO OBTAIN A COPY

The 2003 Annual Report of the Bureau of Vital Statistics is available at many local libraries throughout the state and on the Internet at:

[www.hss.state.ak.us/dph/bvs/data/default.htm](http://www.hss.state.ak.us/dph/bvs/data/default.htm)

We welcome any comments, questions, or concerns you may have about this report. You may contact us at:

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The staff of the Bureau of Vital Statistics extends our gratitude to each person who participated in our data gathering effort. Accurate data are essential to the Bureau's effort to report reliable vital event information. We appreciate the assistance of others in maintaining the integrity of our data.

## ADDITIONAL INFORMATION

Additional information, including how to obtain copies of vital event certificates, is available on the Internet at:

[www.vitalrecords.alaska.gov](http://www.vitalrecords.alaska.gov)

The Research Unit is also available for special information requests on vital statistics data. For non-governmental organizations the fee for research is \$70/hour. For further assistance, please contact the Research Unit at:

Phone: (907) 465-8602

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## ACKNOWLEDGMENTS

Most of the data and health indicators presented in this report are based upon information supplied by many people throughout the state. Birth mothers, doctors, midwives, other birth attendants, medical facilities, medical examiners, magistrates, funeral directors, and a host of other individuals complete information on vital records.

# EXECUTIVE SUMMARY

## Alaska's Population

Total Population.....	648,280 <sup>1</sup>
White.....	462,006 <sup>1</sup>
Native.....	102,542 <sup>1</sup>
African American.....	23,094 <sup>1</sup>
Asian/Pacific Islander.....	30,067 <sup>1</sup>
Male.....	333,686 <sup>1</sup>
Female.....	314,594 <sup>1</sup>
Natural Increase.....	6,904 <sup>2</sup>
Natural Increase Rate.....	10.6 <sup>3</sup>

## Deaths

Total Resident Deaths.....	3,181
Crude Death Rate.....	490.7 <sup>4</sup>
Age-Adjusted Death Rate.....	832.7 <sup>5</sup>
Male Age-Adjusted Death Rate.....	958.5
Female Age-Adjusted Death Rate.....	713.8
Age-Adjusted Cancer Death Rate.....	187.7
Age-Adjusted Heart Disease Death Rate.....	194.4
Age-Adjusted Accidental Death Rate.....	55.1
Age-Adjusted Suicide Death Rate.....	20.6
Infant Mortality Rate.....	6.9 <sup>6</sup>
White Infant Mortality Rate.....	5.8
Native Infant Mortality Rate.....	9.4

## Births

Total Births.....	10,085
Crude Birth Rate.....	15.6 <sup>3</sup>
White Crude Birth Rate.....	13.9
Native Crude Birth Rate.....	21.6
African American Crude Birth Rate.....	11.7
Asian/Pacific Islander Crude Birth Rate.....	16.6
Teen Birth Rate.....	40.7 <sup>7</sup>
Fertility Rate.....	72.1 <sup>8</sup>
White Fertility Rate.....	65.3
Native Fertility Rate.....	98.0
African American Fertility Rate.....	61.3
Asian/Pacific Islander Fertility Rate.....	65.3
Low Birth Weight Percentage.....	5.9 <sup>9</sup>
White Low Birth Weight Percentage.....	5.6
Native Low Birth Weight Percentage.....	6.1
African Amer. Low Birth Weight Percentage.....	9.4
Asian/PI Low Birth Weight Percentage.....	5.6

## Other Vital Statistics

Fetal Deaths.....	59
Fetal Death Rate.....	5.0 <sup>6</sup>
Adoptions.....	749
Crude Adoption Rate.....	1.2 <sup>3</sup>
Marriages.....	5,246
Crude Marriage Rate.....	8.1 <sup>3</sup>
Divorces.....	2,867
Crude Divorce Rate.....	4.4 <sup>3</sup>

<sup>1</sup>Population estimates are from the Alaska Department of Labor, Research and Analysis Section, Demographics Unit.

<sup>2</sup>Natural Increase is the difference between live births and deaths. Natural Increase does not include migration.

<sup>3</sup>Natural Increase, Birth, Marriage, Divorce, and Adoption Rates are events per 1,000 population.

<sup>4</sup>Crude Death Rates are deaths per 100,000 population.

<sup>5</sup>Age-Adjusted Death Rates are adjusted to the U.S. 2000 standard population. (See Appendix B)

<sup>6</sup>Infant Mortality and Fetal Death Rates are 3-year averages (2001–2003) of infant deaths (death cohort) and fetal deaths per 1,000 live births.

<sup>7</sup>Teen Birth Rate is the number of births to teens per 1,000 females 15–19 years of age.

<sup>8</sup>Fertility Rates are births per 1,000 females 15–44 years of age.

<sup>9</sup>Low Birth Weight Percentages are infants born weighing less than 2,500 grams per 100 live births.

# INTRODUCTION

## ABOUT ALASKA

Alaska is the largest of the 50 states and contains approximately 16 percent of the country's landmass. Because of its size, Alaska has widely diverse geographic, climatic, and demographic characteristics, all of which affect public health.

Alaska contains roughly 586,412 square miles of land. Alaska's population in 2003 was 648,280, or slightly more than one person per square mile. Alaska also claims the most northern, western and eastern points of land in the United States, more miles of coastline than all of the contiguous 48 states combined (6,640 miles not including islands), over 5,000 glaciers, over 3 million fresh water lakes (one of which, Iliamna, is the second largest lake entirely within the U.S.), and 3,000 rivers, of which the Yukon is the third longest river in the United States. Much of the coastline and fresh water areas are used as transportation corridors, as well as fishing grounds. Remote lands are used for hunting and recreational activities.

Unique climatic conditions affect Alaska's people. Temperatures can range from as high as 100°F to lows that approach -80°F. Alaska experiences extremes in precipitation as well. Some areas of the state may receive up to 200 inches of precipitation annually, while other areas receive as little as 12 inches.

With diverse cultures, sparse population, severe temperatures, vast coastline, and outdoor lifestyles, the state experiences many unique health care challenges. One such challenge is assisting residents who live in remote areas of the state. The Native Health Corporations, the Alaska Compact between the Indian Health Service and individual tribes, the State of Alaska, and private entities provide health care in these areas through funding for public health nurses and other health care workers.

The Bureau of Vital Statistics 2003 Annual Report focuses on health status indicators in Alaska. Some comparisons between Alaska health status indicators and national indicators are made. Although some similarities exist between Alaska and the rest of the United States, there is

much dissimilarity. By reporting these indicators, our hope is to assist other professionals to evaluate the status of health in Alaska. The events and vital statistics discussed throughout this report can be useful tools for health care planners, providers, and professionals, but do not provide answers in themselves.

## HOW VITAL STATISTICS ARE COLLECTED

Section 18.50.010 of the Alaska Statutes establishes the Bureau of Vital Statistics to install, maintain, and operate a system of vital records. These records contain birth, death, fetal death, divorce, marriage, and adoption information.

When a birth occurs in Alaska, there is a legal process for recording that birth (AS 18.50.160). Generally, a physician, midwife, and/or hospital medical records staff person prepares a birth certificate from information provided by the birth parent(s) and the delivery attendant. Death certificates are usually completed by a funeral home staff member or a local magistrate, and then certified by the attending physician or medical examiner.

Death certificates should be filed with the local recording district office within three days of the date of death (AS 18.50.230). After the certificate has been recorded at the local district office, it is then forwarded to the Bureau of Vital Statistics in Juneau for registration.

When a birth or death occurs in Alaska to a resident of another state, the Bureau sends the respective state's registrar a copy of the certificate. Similarly, when a birth or death occurs to an Alaskan resident in another state, that state's registrar, by formal agreement, sends a copy of the certificate to the Alaska Bureau of Vital Statistics. This cooperative arrangement allows us to include all births and deaths involving Alaskan residents wherever they occur within the country.

In the past, the Alaska Court System issued a license and filed a certificate for each marriage performed in the state. The certificate was filed with the local recording office of the Court System within seven days of the marriage (AS18.50.270). The local recording office then forwarded the certificate to the Bureau for registration and permanent retention. In 1997 the Bureau of Vital Statistics began

issuing marriage licenses in Juneau, Anchorage, and Fairbanks, as well as registering and providing permanent retention of documents. Marriage licenses in other parts of the state continue to be issued by the Court System under the Bureau's oversight.

Divorce, dissolution, and annulment certificates are prepared by a clerk of the court from information provided by the petitioner, plaintiff, and (possibly) court documents. The completed certificate is then forwarded to the Bureau for final registration (AS 18.50.280).

For each adoption granted by the court, a report of adoption is prepared and registered with the Bureau (AS 18.50.210). In the event that a child was born in Alaska and adopted in another state, the Bureau receives and acts on that state's report of adoption.

## POPULATION ESTIMATES

Population estimates used in this report were obtained from the State of Alaska, Department of Labor (DOL), Research and Analysis Section (R&A), Demographics Unit. Totals are made by race, age, and geographic area. The 2003 Alaskan census population was 648,280 persons, with 333,686 males and 314,594 females. During 2003 there were 106.1 males for every 100 females in Alaska.

The Alaska Department of Labor updates its population estimates annually. The estimate of total population is revised each year to correspond to the U.S. Census Bureau state total. Using the decennial census as a base, birth, death, IRS, Alaska Permanent Fund and education statistics are used to produce annual population estimates for geographic areas.

Residents of the Anchorage census area comprised 41.9 percent of the state's population during 2003. About 80.0 percent of Alaska's population was concentrated in six census areas: Anchorage, Fairbanks, Juneau, Kenai, Ketchikan, and Matanuska-Susitna.

The age of a population is important when interpreting vital statistics, because behaviors and health risks of younger populations differ from those exhibited by older populations. Age, race, and sex distributions within a population are also important. The median age for Alaskan males during 2003 was 33.0 years; for females it was 33.1 years; and for all Alaskans it was 33.1 years. The median

age for males in the United States was 34.8 years and for females it was 37.2 years<sup>1</sup>. For an example of the disparity of the age distribution of Alaska versus that of the United States, please refer to Figure H.1 in Appendix H. For further information about interpretation of vital statistics, refer to "How to Use Vital Statistics" in Appendix B.

## HOW CERTIFICATES ARE PROCESSED

In 1994, the Bureau instituted an Electronic Birth Certificate (EBC) system. This system enables hospital and clinic staff to record all birth certificate information by computer. As information is entered for each individual certificate, the computer checks for invalid or improbable data. When the certificate has been entered on the EBC system, the data is certified, recorded, and filed by the Bureau. Each certificate is then examined electronically for missing or out-of-range information and returned to the facility or birth attendant for verification and/or correction. During 2003, almost 97 percent of all births occurring in Alaska were recorded using the EBC.

Other vital records received by the Bureau go through a different verification process. First, a trained documents processor reviews the certificate for completeness. If the certificate is incomplete it is returned to the appropriate office for completion. Once a document has been received and accepted, two different employees enter information into the database. This double-entry verification process reduces data entry errors.

A physician or medical examiner determines causes of death and narrative descriptions are entered on the death certificate. The narrative causes of death are typed into a computer file by Bureau staff. SuperMICAR, a program produced, maintained, and provided by the National Center for Health Statistics (NCHS), codes 85–90 percent of causes of death according to ICD-10 standards. (See Appendix C for groupings of ICD-10 causes of death). The Bureau transmits the computer file by diskette or e-mail to NCHS. NCHS completes coding for the remainder of the records. This coding is then returned to the Bureau and uploaded into its database.

## HOW THIS REPORT WAS PREPARED

After documents have been entered into the Bureau's database, research staff performs computer checks to test for missing, out-of-range, and duplicate data. Because

<sup>1</sup> Census 2003, US Census Bureau, Washington DC

this report is based not only on events that occur in Alaska, but also events that occur in other states to Alaska residents, there may be a significant lag time before data is received.

Waiting for all data to arrive and eliminating duplicate entries are both important steps for ensuring the most accurate report possible. Once we believe the data is both accurate and complete, data programs can be run to generate information from which the tables, charts, and narrative analyses can be written for this report.

There are a number of ways to report vital events including numbers of events, rates based on total populations, or rates based on specific populations. For a discussion of the use of vital statistics and a comparison of different populations, see Appendix B.

## **DETERMINATION OF RACE**

The National Center for Health Statistics (NCHS) issues guidelines for determining the race of a child at birth. With few exceptions, the child's race on the birth certificate is the same as the mother's stated race. These guidelines became effective in 1989.

Sometimes race will be recorded differently on death certificates. This can distort death rates, particularly in the case of infant mortality, where a child's race may be reported as white on the birth certificate because the mother is white, and Native on the death certificate because the father is Native. To ensure consistent reporting and calculation of rates, all death certificates for decedents who were born in Alaska in 1989 or later are matched with the birth certificate and the child's race at birth is used for calculating deaths and death rates by race.