

# INTRODUCTION

This publication by the Arizona Department of Health Services, *Arizona Health Status and Vital Statistics 2005*, is the annual update of information on vital statistics and the health status of Arizona residents. It provides population-wide data on *pregnancies, births, abortions, stillbirths, reportable diseases, deaths, marriages, divorces, hospital inpatient discharges, emergency department visits* and the *population* of the State.

The year 2005 report consists of 253 tables, 135 graphs and accompanying text. It highlights both the statewide trends and patterns in the general population, as well as inequalities in the health status among ethnic groups and Arizona's counties. When possible, the data for 2005 are placed in a temporal context by comparison with the data for the preceding years.

The updated *Index to Tables* in this report contains more than 600 entries referring to specific health conditions, risk factors, disease categories, diagnostic groupings, procedures performed on hospital inpatients and causes of death.

The information in this volume consists of frequencies and rates of vital events for the State's residents (except as noted). The report contains approximately 4,900 age-adjusted and 6,200 age-specific mortality rates, and more than 15,000 other rates and ratios (fertility rates, pregnancy rates, crude death rates, rates of natural increase, etc.).

Since 1992, the report has been organized into three major parts, reflecting differences in geographic coverage:

*Part I is concerned with statewide statistics, Part II presents county-level information, Part III is focused on community-level data.*

The first two parts are further divided into sections on reproductive and perinatal health, utilization of hospital care, mortality and the status on year 2010 health objectives.

Not all health statistics are available on a sub-county level. Hence, information about pregnancies, stillbirths, induced terminations of pregnancy (abortions), inpatient discharges, emergency room visits, reportable diseases, marriages and marriage dissolutions is given only for the State and by county.

Part I, *THE STATE*, of the report has four chapters. The first chapter deals with *reproductive and perinatal health*, i.e., characteristics of women who became pregnant, factors related to the course of their pregnancies and the status of pregnancy outcomes. Much of these data are given for each year from 1995 to 2005. The natality section of this report is concerned with fertility and birth rates, the general health of newborns as indexed by birthweight and prematurity and selected demographic and prenatal care characteristics of the women giving birth.

The second chapter is focused on *trends and patterns in mortality*. It compares the annual age-adjusted profile of leading causes of death by gender from 1995 to 2005. Urban/rural and ethnic differences in cause-specific mortality are also examined for Arizona residents. The five leading causes of death are discussed for infants (<1 year), children (1-14 years), adolescents (15-19 years), young adults (20-44 years), middle-aged adults (45-64 years) and the elderly (65 or more years). For each age group, cause-specific mortality is compared between urban (i.e. Maricopa, Pima, Pinal and Yuma counties) and rural (all other counties) regions and between genders by year from 1995 to 2005. Urban and rural regions are compared in gender-specific total mortality. The chapter on mortality concludes with an examination of patterns of premature mortality by gender and race/ethnicity.

*Morbidity*, levels of disease in the population, is the topic of the third chapter. The presentation is limited to data on diseases reported for the entire population of the State by statutory mandate.

Chapter 4 is focused on *inpatient hospital care*, as well as *emergency department care* in Arizona in 2005. An inpatient discharge occurs when a person who was admitted to a hospital leaves that hospital. A person who has been hospitalized more than once in a given calendar year will be counted multiple times as a discharge and included more than once in the hospital inpatient discharge data set; thus, the statistics in this report are for discharges, not persons.

The available data are for non-Federal short-stay hospitals. Federal, military and the Department of Veteran Affairs hospitals are not included. All discharges are for the residents of Arizona. Discharges of out-of-state residents are not included in this report. Diagnostic groupings and code numbers are based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).

Up to nine diagnoses are coded for each discharge. In sections 4A and 7A, discharges are presented by first-listed diagnosis, which is the first one listed on the discharge summary of the medical record. The number of first-listed diagnoses is the same as the number of discharges. For comparability with the national data, the discharge rates are presented per 10,000 population.

The data on the number procedures in sections 4B and 7B are for inpatients only. Procedures include surgical and non-surgical operations, diagnostic procedures, and special treatments reported on the medical record. Up to six procedures were included for each discharge. These all-listed procedures include all occurrences of the procedure regardless of the order on the medical record. Procedure groupings and code numbers also are based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).

Preceding the tabulated data in the first four chapters is a narrative description of the data. This description is not meant to be exhaustive but rather is a presentation of the major highlights to be gleaned from the data.

Part II and Part III contain information with no accompanying narrative.

Part II, *THE COUNTIES*, presents the tabulated data on 1) Trends and patterns in health status and vital statistics by county of residence in Chapter 5, 2) County profiles and statewide trends on indicators for assessing health status and monitoring progress toward Arizona and national year 2010 objectives (Chapter 6). The health indicators are organized around ten subject areas: *maternal, infant and child health, responsible sexual behavior, vaccine preventable diseases, injury and violence, cancer, diabetes, heart disease and stroke, respiratory diseases, human immunodeficiency virus (HIV) disease, and substance abuse*; Hospital inpatient and emergency department statistics by disease category, diagnosis group and all-listed procedures by patient's county of residence in the State (Chapter 7) and

3) Selected historical vital events (births, deaths, infant deaths, marriages and dissolutions of marriage) by year and county in the State for 1950-1994 (Chapter 8).

Part III, *THE COMMUNITIES*, provides readers with selected community-level data on live births and deaths in Arizona in 2005 (Chapter 9).

Chapter 10 presents population denominators for Arizona by gender, age groups, county of residence and race/ethnicity.

To use *Arizona Health Status and Vital Statistics 2005* effectively, the reader should become familiar with *Technical Notes* at the end of the report. They provide definitions of terms used in the report, as well as information about the sources of data. *Technical Notes* also include detailed comparability ratios used to make comparisons between cause-of-death data classified by the Ninth and Tenth Revisions of the International Classification of Diseases.

In addition to bound form, the *Arizona Health Status and Vital Statistics 2005* is available online at:

<http://www.azdhs.gov/plan/report/ahs/>

In order to be of maximum usefulness, the public health data must be timely. It is our pleasure to release *Arizona Health Status and Vital Statistics 2005* within nine months after the end of the data calendar year. Below are some highlights from the report.

#### BIRTHS ON THE AVERAGE

On an average day in Arizona in 2005, 262 resident babies were born. Among the 95,798 resident births in 2005, the majority of them (42,156) were to Hispanic or Latino mothers, followed by White non-Hispanics (39,946), American Indian or Alaska Native (6,293), Black or African American (3,450) and Asian or Pacific Islander (2,805). In contrast, in 1995, White non-Hispanic accounted for the majority (53.2 percent) of resident live births followed by (a 34.7 percent share of) Hispanic or Latino births.

#### BIRTHS BY MARITAL STATUS

Unmarried mothers have accounted for an increasing annual proportion of births throughout the 1980s and 1990s, with 42.8 percent in 2005 marking a new historical high. In 2005, infants of married mothers had an infant mortality rate of 5.4 deaths per 1,000 live births, 32.5 percent lower than the rate for infants of unmarried mothers. Marital status may signify the presence or absence of emotional, social, and financial resources.

#### BIRTHS BY PAYER

The share of resident births paid for by the Arizona Health Care Cost Containment System (the State's Medicaid Program) increased for the sixth consecutive year from 41.5 percent of the total deliveries in 1999 to 52.6 percent in 2005. The share of private health insurance decreased from 50.5 percent of the total deliveries in 2000 to 41.6 percent in 2005.

#### TEEN PREGNANCIES

The pregnancy rate for Arizona teenagers 15-19 years old in 2005 was 65.6 pregnancies per 1,000 females, 5.5 percent lower than in 2004. The pregnancy rate for younger teenagers 15-17 years also slightly decreased in 2005 to 39.1/1,000. Similarly, the pregnancy rate for older teenagers decreased from 108.7 in 2004 to 103.6 in 2005.

#### TOTAL MORTALITY

During 2005, 45,115 Arizona residents died, 2,379 more than in 2004. There were 23,614 deaths of Arizona male residents and 21,501 deaths among females.

#### INFANT MORTALITY

The Arizona infant mortality rate increased for the third consecutive year from 6.3 in 2002 to 6.8 in 2005. In 2005, 653 infants died before reaching their first birthday, the highest number of annual infant deaths since 1970.

Birthweight is one of the most important predictors of an infant's survival chances. Births at 500-999 grams accounted for 0.5 percent of births, but 21.7 percent of infant deaths in Arizona in 2005. Together, births of infants weighing less than 1,000 grams accounted for 0.6 percent of births, and nearly 40 percent of all infant deaths. Infants weighing less than 500 grams have very high mortality rate of 87.5 percent

#### CAUSE-SPECIFIC MORTALITY

The leading underlying cause of death to Arizona residents in 2005 continued to be *heart disease*, which accounted for 10,779 or 23.9 percent of all deaths. *Cancer* remained the second most frequent cause of death to residents of the state, being responsible for 21.4 percent of all deaths in 2005. Deaths due to *accidents (unintentional injuries)* ranked third in 2005, with 3,006 resident deaths reported. The fourth leading cause of death, *chronic lower respiratory diseases*, accounted for 2,778 or 6.2 percent of total deaths. Deaths due to *cerebrovascular disease* ranked fifth in 2005, with 2,325 resident deaths reported.

In 2005, *cerebrovascular disease* accounted for 5.2 percent of all deaths. Together, these five causes accounted for 63.3 percent of total deaths in 2005.

#### MATERNAL MORTALITY

In 2005, nine women were reported to have died from maternal causes. The number of maternal deaths is highly variable from one year to the next. In the eleven-year period from 1995 to 2005, the causes of maternal deaths in the State have included *complications mainly related to pregnancy* (25.5 percent of all maternal deaths), *complications following childbirth* (i.e. complications of the puerperium, 29.1 percent), and *complications occurring in the course of labor and delivery* (14.5 percent). *Ectopic pregnancy* accounted for 5.4 percent of maternal deaths in 1995-2005

#### HOSPITAL CARE

In 2005, there were 627,479 inpatients discharged, excluding newborn infants, from non-Federal short stay hospitals in Arizona. The most frequently reported first-listed diagnoses for inpatient hospitalizations were *heart disease* (67,497), *fractures* (22,060), *pneumonia* (22,041), *malignant neoplasms* (21,037), *cerebrovascular disease* (16,627), and *psychoses* (15,057). Together, these six diagnostic categories accounted for 26.2 percent of all inpatient hospitalizations in Arizona in 2005.

#### INPATIENT PROCEDURES

During 2005, 983,875 procedures were performed on hospital inpatients in Arizona. The rate of procedures was 1,627.6 per 10,000 Arizonans. Nationally, the rate of procedures was 1,539.7 per 10,000 population.

#### EMERGENCY DEPARTMENT CARE

During 2005, more than 1.6 million visits were made by Arizona residents to hospital emergency departments (ED), approximately 27 visits per 100 persons. In 2005, *acute upper respiratory infection*, *abdominal pain*, *contusion with intact skin surface*, *open wound*, *chest pain*, *mental disorders* and *spinal disorders* were the leading diagnostic categories, accounting for more than one-fourth (25.8 percent) of all visits.

Both *fever* (30,185 visits) and *headache* (28,588) were among the top fifteen complaints, symptoms or reasons for a visit to the emergency room.

A comparison of some of the basic findings for the State for 1995, 2000 and 2005 is presented on the following page.