

INDIAN HEALTH SERVICE

**REGIONAL  
DIFFERENCES IN  
INDIAN HEALTH**

**1995**

U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
INDIAN HEALTH SERVICE  
OFFICE OF PLANNING,  
EVALUATION, AND  
LEGISLATION  
DIVISION OF PROGRAM  
STATISTICS

**Department of Health and Human Services**  
Donna E. Shalala  
*Secretary*

**Public Health Service**  
Philip R. Lee, M.D.  
*Assistant Secretary for Health*

**Indian Health Service**  
Michael H. Trujillo, M.D., M.P.H.  
*Director*

**Office of Planning, Evaluation, and Legislation**  
Luana L. Reyes  
*Associate Director*

**Division of Program Statistics**  
Anthony J. D'Angelo  
*Director*



## PREFACE

Since 1955, the U.S. Public Health Service through its Indian Health Service (IHS) component, has had the responsibility for providing comprehensive health services to American Indian and Alaska Native people in order to elevate their health status to the highest possible level. The mission of the IHS is to provide a comprehensive health services delivery system for American Indians and Alaska Natives with opportunity for maximum tribal involvement in developing and managing programs to meet their health needs.

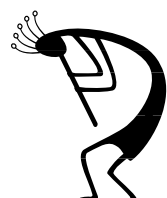
This publication presents tables and charts that describe the IHS program, and the health status of American Indians and Alaska Natives. Information pertaining to the IHS structure, and American Indian and Alaska Native demography and patient care are included. Current regional differences are presented, and comparisons to the general population are made, when appropriate.



Michael H. Trujillo, M.D., M.P.H.  
*Assistant Surgeon General*  
*Director, Indian Health Service*



# CONTENTS



|  |           |
|--|-----------|
| <b>Overview of the Indian Health Service Program .....</b>   | <b>1</b>  |
| <b>Purpose and Description of Regional Differences in Indian Health.....</b>   | <b>3</b>  |
| <b>Summary of Data Shown .....</b>   | <b>4</b>  |
| Indian Health Service Structure .....  | 4         |
| Population Statistics.....   | 4         |
| Natality and Infant/Maternal Mortality Statistics.....   | 4         |
| General Mortality Statistics.....  | 5         |
| Patient Care Statistics .....  | 5         |
| <b>Sources and Limitations of Data .....</b>   | <b>7</b>  |
| Population Statistics.....   | 7         |
| Vital Event Statistics.....  | 7         |
| Patient Care Statistics .....  | 9         |
| <b>Glossary.....</b>   | <b>10</b> |
| <b>Sources of Additional Information .....</b>   | <b>12</b> |
| <b>Tables and Charts .....</b>   | <b>15</b> |
| <b><i>Part 1 - Indian Health Service Structure</i></b>   |           |
| Chart 1.1 - Indian Health Service Area Offices .....   | 15        |
| Chart 1.2 - Number of Service Units and Facilities Operated by IHS and<br>Tribes, October 1, 1994 .....                  | 15        |
| Chart 1.3 - Number of Service Units and Facilities Operated by the<br>Aberdeen Area and Tribes, October 1, 1994 .....    | 16        |
| Chart 1.4 - Number of Service Units and Facilities Operated by the Alaska<br>Area and Tribes, October 1, 1994 .....      | 16        |
| Chart 1.5 - Number of Service Units and Facilities Operated by the<br>Albuquerque Area and Tribes, October 1, 1994 ..... | 17        |
| Chart 1.6 - Number of Service Units and Facilities Operated by the<br>Bemidji Area and Tribes, October 1, 1994.....      | 17        |
| Chart 1.7 - Number of Service Units and Facilities Operated by the Billings<br>Area and Tribes, October 1, 1994 .....    | 18        |
| Chart 1.8 - Number of Service Units and Facilities Operated by the<br>California Area and Tribes, October 1, 1994 .....  | 18        |
| Chart 1.9 - Number of Service Units and Facilities Operated by the<br>Nashville Area and Tribes, October 1, 1994.....    | 19        |
| Chart 1.10 - Number of Service Units and Facilities Operated by the Navajo<br>Area and Tribes, October 1, 1994 .....     | 19        |
| Chart 1.11 - Number of Service Units and Facilities Operated by the<br>Oklahoma Area and Tribes, October 1, 1994 .....   | 20        |

|  |    |
|--|----|
| Chart 1.12 - Number of Service Units and Facilities Operated by the Phoenix Area and Tribes, October 1, 1994 . . . . . | 20 |
| Chart 1.13 - Number of Service Units and Facilities Operated by the Portland Area and Tribes, October 1, 1994. . . . . | 21 |
| Chart 1.14 - Number of Service Units and Facilities Operated by the Tucson Area and Tribes, October 1, 1994 . . . . .  | 21 |

## ***Part 2 - Population Statistics***

|   |    |
|---|----|
| Chart 2.1 - IHS User Population, FY 1993 . . . . .  | 23 |
| Chart 2.2 - Percent of Females in User Population, 1993 . . . . .   | 23 |
| Chart 2.3 - Percent of User Population Under Age 5, 1993 . . . . .  | 24 |
| Chart 2.4 - Percent of User Population Over Age 64, 1993 . . . . .  | 24 |
| Chart 2.5 - Percent High School Graduate or Higher, Age 25 and Older, 1990 Census State-Level Indian Data . . . . . | 25 |
| Chart 2.6 - Percent Bachelor's Degree or Higher, Age 25 and Older, 1990 Census State-Level Indian Data . . . . .    | 25 |
| Chart 2.7 - Percent of Males Unemployed, Age 16 and Older, 1990 Census . . . . .                                    | 26 |
| Chart 2.8 - Percent of Females Unemployed, Age 16 and Older, 1990 Census . . . . .                                  | 26 |
| Chart 2.9 - Median Household Income in 1989, 1990 Census . . . . .  | 27 |
| Chart 2.10 - Percent of Population Below Poverty Level, 1990 Census . . . . .                                       | 27 |

## ***Part 3 - Natality and Infant/Maternal Mortality Statistics***

|  |    |
|--|----|
| Chart 3.1 - Birth Rates, CY 1990–1992 . . . . .  | 29 |
| Table 3.1 - Number and Rate of Live Births, CY 1990–1992 . . . . .                             | 29 |
| Chart 3.2 - Low Weight Births, CY 1990–1992 . . . . .  | 30 |
| Table 3.2 - Births of Low Weight as a Percent of Total Live Births, CY 1990–1992. . . . .      | 30 |
| Chart 3.3 - Live Births with Prenatal Care Beginning in First Trimester, CY 1990–1992. . . . . | 31 |
| Table 3.3 - Live Births with Prenatal Care Beginning in First Trimester, CY 1990–1992. . . . . | 31 |
| Chart 3.4 - Maternal Deaths, CY 1990–1992. . . . .   | 32 |
| Chart 3.5 - Infant Mortality Rates, CY 1990–1992 . . . . .                                     | 33 |
| Table 3.5 - Infant Mortality Rates, CY 1990–1992 . . . . .                                     | 33 |
| Chart 3.6 - Neonatal Mortality Rates, CY 1990–1992. . . . .                                    | 34 |
| Table 3.6 - Neonatal Mortality Rates, CY 1990–1992. . . . .                                    | 34 |
| Chart 3.7 - Postneonatal Mortality Rates, CY 1990–1992 . . . . .                               | 35 |
| Table 3.7 - Postneonatal Mortality Rates, CY 1990–1992 . . . . .                               | 35 |
| Chart 3.8 - Leading Causes of Infant Deaths, All IHS Areas, CY 1990–1992. . . . .              | 36 |
| Chart 3.9 - Leading Causes of Infant Deaths, U.S. All Races, 1991 . . . . .                    | 36 |
| Chart 3.10 - Leading Causes of Infant Deaths, Aberdeen Area, CY 1990–1992 . . . . .            | 37 |
| Chart 3.11 - Leading Causes of Infant Deaths, Alaska Area, CY 1990–1992 . . . . .              | 37 |
| Chart 3.12 - Leading Causes of Infant Deaths, Albuquerque Area, CY 1990–1992 . . . . .         | 38 |
| Chart 3.13 - Leading Causes of Infant Deaths, Bemidji Area, CY 1990–1992 . . . . .             | 38 |
| Chart 3.14 - Leading Causes of Infant Deaths, Billings Area, CY 1990–1992 . . . . .            | 39 |
| Chart 3.15 - Leading Causes of Infant Deaths, California Area, CY 1990–1992 . . . . .          | 39 |

|  |    |
|--|----|
| Chart 3.16 - Leading Causes of Infant Deaths, Nashville Area, CY 1990–1992 | 40 |
| Chart 3.17 - Leading Causes of Infant Deaths, Navajo Area, CY 1990–1992 .  | 40 |
| Chart 3.18 - Leading Causes of Infant Deaths, Oklahoma Area, CY 1990–1992  | 41 |
| Chart 3.19 - Leading Causes of Infant Deaths, Phoenix Area, CY 1990–1992   | 41 |
| Chart 3.20 - Leading Causes of Infant Deaths, Portland Area, CY 1990–1992  | 42 |
| Chart 3.21 - Leading Causes of Infant Deaths, Tucson Area, CY 1990–1992 .  | 42 |
| Chart 3.22 - Sudden Infant Death Syndrome Rates, CY 1990–1992 . . . . .    | 43 |
| Table 3.22 - Sudden Infant Death Syndrome Rates, CY 1990–1992 . . . . .    | 43 |

#### ***Part 4 - General Mortality Statistics***

|  |    |
|--|----|
| Chart 4.1 - Age-Adjusted Mortality Rates, CY 1990–1992 . . . . .   | 45 |
| Table 4.1 - Age-Adjusted Mortality Rates, CY 1990–1992 . . . . .   | 45 |
| Chart 4.2 - Years of Productive Life Lost (YPLL) Rates, CY 1990–1992 . . . .   | 46 |
| Table 4.2 - Years of Productive Life Lost (YPLL) Rates, CY 1990–1992 . . . .   | 46 |
| Chart 4.3 - Leading Causes of Death, All IHS Areas, CY 1990–1992 . . . . .   | 47 |
| Chart 4.4 - Leading Causes of Death, U.S. All Races, CY 1991 . . . . .   | 47 |
| Chart 4.5 - Leading Causes of Death, Aberdeen Area, CY 1990–1992 . . . . .   | 48 |
| Chart 4.6 - Leading Causes of Death, Alaska Area, CY 1990–1992 . . . . .   | 48 |
| Chart 4.7 - Leading Causes of Death, Albuquerque Area, CY 1990–1992 . .  | 49 |
| Chart 4.8 - Leading Causes of Death, Bemidji Area, CY 1990–1992 . . . . .  | 49 |
| Chart 4.9 - Leading Causes of Death, Billings Area, CY 1990–1992 . . . . .   | 50 |
| Chart 4.10 - Leading Causes of Death, California Area, CY 1990–1992 . . . . .  | 50 |
| Chart 4.11 - Leading Causes of Death, Nashville Area, CY 1990–1992 . . . . .   | 51 |
| Chart 4.12 - Leading Causes of Death, Navajo Area, CY 1990–1992 . . . . .  | 51 |
| Chart 4.13 - Leading Causes of Death, Oklahoma Area, CY 1990–1992 . . . . .  | 52 |
| Chart 4.14 - Leading Causes of Death, Phoenix Area, CY 1990–1992 . . . . .   | 52 |
| Chart 4.15 - Leading Causes of Death, Portland Area, CY 1990–1992 . . . . .  | 53 |
| Chart 4.16 - Leading Causes of Death, Tucson Area, CY 1990–1992 . . . . .  | 53 |
| Chart 4.17 - Age-Adjusted Injury and Poisoning Mortality Rates, CY 1990–1992   | 54 |
| Table 4.17 - Age-Adjusted Injury and Poisoning Mortality Rates, CY 1990–1992   | 54 |
| Chart 4.18 - Age-Adjusted Accident Mortality Rates, CY 1990–1992 . . . . .   | 55 |
| Table 4.18 - Age-Adjusted Accident Mortality Rates, CY 1990–1992 . . . . .   | 55 |
| Chart 4.19 - Age-Adjusted Suicide Mortality Rates, CY 1990–1992 . . . . .  | 56 |
| Table 4.19 - Age-Adjusted Suicide Mortality Rates, CY 1990–1992 . . . . .  | 56 |
| Chart 4.20 - Age-Adjusted Homicide Mortality Rates, CY 1990–1992 . . . . .   | 57 |
| Table 4.20 - Age-Adjusted Homicide Mortality Rates, CY 1990–1992 . . . . .   | 57 |
| Chart 4.21 - Age-Adjusted Mortality Rates for Injury and Poisoning Deaths<br>Due to Other Causes, CY 1990–1992 . . . . . | 58 |
| Table 4.21 - Age-Adjusted Mortality Rates for Injury and Poisoning Deaths<br>Due to Other Causes, CY 1990–1992 . . . . . | 58 |
| Chart 4.22 - Age-Adjusted Alcoholism Mortality Rates, CY 1990–1992 . . . . .   | 59 |
| Table 4.22 - Age-Adjusted Alcoholism Mortality Rates, CY 1990–1992 . . . . .   | 59 |
| Chart 4.23 - Age-Adjusted Diabetes Mellitus Mortality Rates, CY 1990–1992 .  | 60 |
| Table 4.23 - Age-Adjusted Diabetes Mellitus Mortality Rates, CY 1990–1992 .  | 60 |
| Chart 4.24 - Age-Adjusted Tuberculosis Mortality Rates, CY 1990–1992 . . . .   | 61 |
| Table 4.24 - Age-Adjusted Tuberculosis Mortality Rates, CY 1990–1992 . . . .   | 61 |
| Chart 4.25 - Age-Adjusted Gastrointestinal Diseases Mortality Rates,<br>CY 1990–1992 . . . . .                           | 62 |

|  |    |
|--|----|
| Table 4.25 - Age-Adjusted Gastrointestinal Diseases Mortality Rates,<br>CY 1990–1992. ....                     | 62 |
| Chart 4.26 - Age-Adjusted Diseases of the Heart Mortality Rates, CY 1990–1992                                  | 63 |
| Table 4.26 - Age-Adjusted Diseases of the Heart Mortality Rates, CY 1990–1992                                  | 63 |
| Chart 4.27 - Age-Adjusted Cerebrovascular Diseases Mortality Rates,<br>CY 1990–1992. ....                      | 64 |
| Table 4.27 - Age-Adjusted Cerebrovascular Diseases Mortality Rates,<br>CY 1990–1992. ....                      | 64 |
| Chart 4.28 - Age-Adjusted Malignant Neoplasm Mortality Rates, CY 1990–1992                                     | 65 |
| Table 4.28 - Age-Adjusted Malignant Neoplasm Mortality Rates, CY 1990–1992                                     | 65 |
| Chart 4.29 - Age-Adjusted Breast Cancer Mortality Rates for Females,<br>CY 1990–1992. ....                     | 66 |
| Table 4.29 - Age-Adjusted Breast Cancer Mortality Rates for Females,<br>CY 1990–1992. ....                     | 66 |
| Chart 4.30 - Age-Adjusted Cervical Cancer Mortality Rates for Females,<br>CY 1990–1992. ....                   | 67 |
| Table 4.30 - Age-Adjusted Cervical Cancer Mortality Rates for Females,<br>CY 1990–1992. ....                   | 67 |
| Chart 4.31 - Age-Adjusted Human Immunodeficiency Virus (HIV) Infection<br>Mortality Rates, CY 1990–1992 . .... | 68 |
| Table 4.31 - Age-Adjusted Human Immunodeficiency Virus (HIV) Infection<br>Mortality Rates, CY 1990–1992 . .... | 69 |
| Chart 4.32 - Life Expectancy at Birth, Both Sexes, CY 1990–1992 . ....   | 70 |
| Chart 4.33 - Life Expectancy at Birth, Males, CY 1990–1992 . ....  | 70 |
| Chart 4.34 - Life Expectancy at Birth, Females, CY 1990–1992 . ....  | 71 |

## ***Part 5 - Patient Care Statistics***

|   |    |
|---|----|
| Chart 5.1 - Number of Admissions, FY 1993. ....   | 73 |
| Chart 5.2 - Hospital Admission Rate, FY 1993 . ....   | 73 |
| Table 5.1 - Number and Rate of Admissions, IHS and Tribal Direct and<br>Contract General Hospitals, FY 1993, and U.S. Short-Stay<br>Community Hospitals, CY 1993 . .... | 74 |
| Chart 5.3 - Number of Hospital Days, FY 1993. ....  | 75 |
| Table 5.3 - Number of Hospital Days, IHS and Tribal Direct and Contract<br>General Hospitals, FY 1993. ....   | 75 |
| Chart 5.4 - Leading Causes of Hospitalization, All IHS Areas, FY 1993. ....   | 76 |
| Chart 5.5 - Leading Causes of Hospitalization, Aberdeen Area, FY 1993 ...   | 76 |
| Chart 5.6 - Leading Causes of Hospitalization, Alaska Area, FY 1993 . ....  | 77 |
| Chart 5.7 - Leading Causes of Hospitalization, Albuquerque Area, FY 1993  | 77 |
| Chart 5.8 - Leading Causes of Hospitalization, Bemidji Area, FY 1993 . ....   | 78 |
| Chart 5.9 - Leading Causes of Hospitalization, Billings Area, FY 1993 . ....  | 78 |
| Chart 5.10 - Leading Causes of Hospitalization, California Area, FY 1993 ...  | 79 |
| Chart 5.11 - Leading Causes of Hospitalization, Nashville Area, FY 1993. ....   | 79 |
| Chart 5.12 - Leading Causes of Hospitalization, Navajo Area, FY 1993 . ....   | 80 |
| Chart 5.13 - Leading Causes of Hospitalization, Oklahoma Area, FY 1993. ....  | 80 |
| Chart 5.14 - Leading Causes of Hospitalization, Phoenix Area, FY 1993. ....   | 81 |
| Chart 5.15 - Leading Causes of Hospitalization, Portland Area, FY 1993 . ....   | 81 |
| Chart 5.16 - Leading Causes of Hospitalization, Tucson Area, FY 1993 . ....   | 82 |

|   |    |
|---|----|
| Chart 5.17 - Number of Ambulatory Medical Visits, FY 1993 .....   | 83 |
| Table 5.17 - Number of Ambulatory Medical Visits, IHS and Tribal Direct<br>and Contract Facilities, FY 1993 ..... | 83 |
| Chart 5.18 - Leading Causes of Ambulatory Medical Visits, All IHS Areas,<br>FY 1993 .....                         | 84 |
| Chart 5.19 - Leading Causes of Ambulatory Medical Visits, Aberdeen Area,<br>FY 1993 .....                         | 84 |
| Chart 5.20 - Leading Causes of Ambulatory Medical Visits, Alaska Area,<br>FY 1993 .....                           | 85 |
| Chart 5.21 - Leading Causes of Ambulatory Medical Visits, Albuquerque Area,<br>FY 1993 .....                      | 85 |
| Chart 5.22 - Leading Causes of Ambulatory Medical Visits, Bemidji Area,<br>FY 1993 .....                          | 86 |
| Chart 5.23 - Leading Causes of Ambulatory Medical Visits, Billings Area,<br>FY 1993 .....                         | 86 |
| Chart 5.24 - Leading Causes of Ambulatory Medical Visits, California Area,<br>FY 1993 .....                       | 87 |
| Chart 5.25 - Leading Causes of Ambulatory Medical Visits, Nashville Area,<br>FY 1993 .....                        | 87 |
| Chart 5.26 - Leading Causes of Ambulatory Medical Visits, Navajo Area,<br>FY 1993 .....                           | 88 |
| Chart 5.27 - Leading Causes of Ambulatory Medical Visits, Oklahoma Area,<br>FY 1993 .....                         | 88 |
| Chart 5.28 - Leading Causes of Ambulatory Medical Visits, Phoenix Area,<br>FY 1993 .....                          | 89 |
| Chart 5.29 - Leading Causes of Ambulatory Medical Visits, Portland Area,<br>FY 1993 .....                         | 89 |
| Chart 5.30 - Leading Causes of Ambulatory Medical Visits, Tucson Area,<br>FY 1993 .....                           | 90 |
| Chart 5.31 - Number of Dental Services Provided, FY 1994 .....  | 91 |
| Table 5.31 - Number of Dental Services Provided, IHS and Tribal Direct<br>and Contract Facilities, FY 1994 .....  | 91 |
| Chart 5.32 - Rate of New Tuberculosis Cases, CY 1994 .....  | 92 |
| Table 5.32 - Number and Rate of New Tuberculosis Cases, CY 1994 .....   | 92 |

