OKLAHOMA CITY AREA
INDIAN HEALTH SERVICE

AREA PROFILE 2009
November 2009
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Special thanks to the staff of the Oklahoma City Area Indian Health Service who contribute each and every day to improving the health status of the American Indian and Alaska Native people. Without your efforts, this report would not be possible.

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Age-Adjustment: Age adjustment is used to compare risks of two or more populations at one point in time or one population at two or more points in time. Age-adjusted rates are computed by the direct method by applying age-specific rates in a population of interest to a standardized age distribution, in order to eliminate differences in observed rates that result from age differences in population composition.

Average Daily Patient Load: The average number of patients occupying beds in a hospital on a daily basis. It is calculated by dividing total inpatient days for the year by 365.

Cause of Death: For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and using the international rules for selecting the underlying cause of death from the conditions stated on the death certificate. The underlying cause is defined by the World Health Organization (WHO) as the disease or injury that initiated the train of events leading directly to death, or the circumstances of the accident or violence, which produced the fatal injury.

Incidence: A measure of the risk of developing some new condition within a specified period of time. The number of new cases of a disease.

Infant Mortality: Death of live-born children who have not reached their first birthday expressed as a rate (i.e., the number of infant deaths during a year per 1,000 live births reported in the year).

Life Expectancy: The average number of years remaining to a person at a particular age based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned.

Low Birth Weight: Birth weight of less than 5 pounds, 8 ounces or 2,500 grams.

Maternal Death: The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Mortality: A fatal outcome; death.

Morbidity: Illness or disease.

Neonatal Mortality Rate: The number of deaths under 28 days of age per 1,000 live births.

Occurrence: Place where the event occurred.

Post-neonatal Mortality Rate: The number of deaths that occur from 28 days to 365 days after birth per 1,000 live births.

Years of Potential Life Lost (YPLL): A mortality indicator that measures the burden of premature deaths. It is calculated by subtracting the age at death from age 65 and summing the result over all deaths.
Abbreviations and Acronyms

AAIR   Age Adjusted Incidence Rate
AAMR   Age Adjusted Mortality Rate
AI/AN   American Indian/Alaska Native
BMI    Body Mass Index
Census United States Census Bureau
CDC    Centers for Disease Control and Prevention
CHAMPVA Civilian Health and Medical Program of the Department of Veterans Affairs
CHR    Community Health Representative
CHS    Contract Health Services
CRS    Clinical Reporting System
Deliv. Delivered
DMII   Diabetes Mellitus Type II
FAS    Fetal Alcohol Syndrome
FY     Fiscal Year
GPRA   Government Performance Results Act
HIV    Human Immunodeficiency Virus
HTN    Hypertension
IHS    Indian Health Service
I/T/U  Indian Health Service (federal)/Tribal/Urban facilities
Lac.   Laceration
NDW    National Data Warehouse
NEC    Not Elsewhere Classified (medical term)
NOS    Not Otherwise Specified (medical term)
NPIRS  IHS National Patient Information Reporting System
OCAO   IHS Oklahoma City Area Office
ODMHSAS Oklahoma Department of Mental Health and Substance Abuse Services
OSDH   Oklahoma State Department of Health
PCPV   Primary Care Provider Visits
PCP    Primary Care Provider
POV    Purpose of Visit
RPMS   Resource Patient Management System
SCHIP  State Children’s Health Insurance Program
SU     Service Unit
VA     US Department of Veterans Affairs
Chapter 2. Introduction

The Indian Health Service Oklahoma City Area serves the states of Oklahoma, Kansas, portions of Texas and Richardson County, Nebraska. In the Oklahoma City Area, there are 38 Tribes in Oklahoma, 4 Tribes in Kansas and 1 Tribe in Texas. The Area consists of 12 Service Units.

<table>
<thead>
<tr>
<th>Service Units in the Oklahoma City Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ada</td>
</tr>
<tr>
<td>Eagle Pass</td>
</tr>
<tr>
<td>Lawton</td>
</tr>
<tr>
<td>Tahlequah</td>
</tr>
</tbody>
</table>

The Oklahoma City Area has the largest user population in all of Indian Health Service; the second largest is the Navajo Area. There are a mixture of Indian Health, Tribal and Urban (I/T/U) facilities located throughout the area. The large number of Tribal Health Care Facilities and Programs is a reflection of the partnerships and cooperation within our Area to fulfill the health care needs of our community.

As of October 1, 2008, there are six hospitals, four of which are hospital tribally operated. The hospitals also provide ambulatory patient care services in addition to inpatient care. There are 54 outpatient ambulatory care centers in the area, which include four clinics located in urban areas

- Dallas, Texas
- Oklahoma City, Oklahoma
- Tulsa, Oklahoma
- Wichita, Kansas
Population Demographics & Socio-Economic Status

Demographics are the description of the population and can be illustrated through various data elements. The most common are population total by race, age and sex. Other data elements show the lifestyle of the population through education and socio-economic data; such as median household income, and poverty status.

In this chapter the data focuses on the states of Kansas, Texas and Oklahoma, which make up the Oklahoma City Area. The data source is from the US Census Bureau data sets of the Census 2000 data tables, and the 2006-2008 American Community Survey. The data shown represents American Indian/Alaska Native alone or single race; if AI/AN specific data was not available, the data for all races was used. Data for All races and US AI/AN Alone were also used when available for comparison.
Chapter 3. Demographics

Socio-Economic Status

The following tables highlight the American Indian/Alaska Native socio-economic status in relation to all races and the nationwide average. The percent of the population below poverty level, the median household income, and the unemployment rates are presented using the US Census 2000 Data in comparison to more recent data from 2006-2008 American Community Survey.

![Poverty Status (AI/AN Alone)](image1)

Poverty Status (AI/AN Alone)
% of Population Below Poverty Level
By State, US Census 2000

![Poverty Status in Past 12 months AI/AN Alone vs All Races](image2)

Poverty Status in Past 12 months AI/AN Alone vs All Races
Chapter 3. Demographics

Socio-Economic Status

Population Unemployment Rate - All Races

- US National Rate: 9.4%
- Oklahoma: 6.6%
- Kansas: 7.5%
- Texas: 7.9%

Median Household Income Comparison
AI/AN Alone Householder vs. All Races
2006-2008 American Community Survey, US Census Bureau

- United States: $52,175
- Kansas: $49,189
- Oklahoma: $42,541
- Texas: $49,078

United States: $37,068
Kansas: $39,483
Oklahoma: $35,817
Texas: $44,479
Chapter 3. Demographics

Education Status of Population

The charts for education status are from the most recent Regional Differences in Indian Health, published in 2008 by the Indian Health Service, Division of Program Statistics.

Percent High School Graduate or Higher
Age 25 and Older, 2000 Census American Indian/Alaska Native (Alone)

Source: Regional Differences in Indian Health: 2002-2003 Edition, Chart 2.5

Percent Bachelor's Degree or Higher
Age 25 and Older, 2000 Census American Indian/Alaska Native (Alone)

Source: Regional Differences in Indian Health: 2002-2003 Edition, Chart 2.6
Population Without Health Insurance

The Census Bureau broadly classifies health insurance coverage as either Private (non-government) coverage or Government-sponsored coverage (such as Medicare, Medicaid, SCHIP, Military Healthcare-Tricare, VA, CHAMPVA or state-specific plan). Since 1997 the US Census does not consider access to Indian Health Service as a form of insurance coverage. The uninsured percentages shown are for statewide all races, as there is not sufficient data for American Indian/Alaska Native specifically to measure health insurance coverage. The all races national average for CY 2008 was 15.4%.

IHS User Population

The Indian Health Service User Population is an unduplicated count of AI/AN registrants who have had a direct or contract (inpatient, ambulatory, or dental) encounter with the health system during the last three years October 1, 2006 through September 30, 2008. The chart below is the Oklahoma City Area user population trended over the past nine years. The I/T/U facilities export patient registration data to the National Data Warehouse each fiscal year in order to facilitate the area-wide process of un-duplication. The patient registrants are counted in the Service Unit and County where they reside regardless of which I/T/U facility they receive their care.

NOTE: FY 2008 is the latest official user population available, FY 2009 was not available at the time of this publication update.

Chapter 3. Demographics


This population pyramid shows the gender and age makeup of the Oklahoma City Area Users as of October 2008.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1,806</td>
<td>1,867</td>
<td>3,673</td>
</tr>
<tr>
<td>1-4</td>
<td>10,818</td>
<td>11,456</td>
<td>22,274</td>
</tr>
<tr>
<td>5-14</td>
<td>28,397</td>
<td>29,125</td>
<td>57,522</td>
</tr>
<tr>
<td>15-19</td>
<td>15,277</td>
<td>14,763</td>
<td>30,040</td>
</tr>
<tr>
<td>20-24</td>
<td>16,550</td>
<td>13,929</td>
<td>30,479</td>
</tr>
<tr>
<td>25-34</td>
<td>27,512</td>
<td>23,290</td>
<td>50,802</td>
</tr>
<tr>
<td>35-44</td>
<td>21,682</td>
<td>18,415</td>
<td>40,097</td>
</tr>
<tr>
<td>45-64</td>
<td>35,528</td>
<td>28,936</td>
<td>64,464</td>
</tr>
<tr>
<td>65+</td>
<td>15,297</td>
<td>11,578</td>
<td>26,875</td>
</tr>
<tr>
<td>Total</td>
<td>172,867</td>
<td>153,359</td>
<td>326,226</td>
</tr>
</tbody>
</table>

FY 2008 OCA IHS User by Age & Gender
In Oklahoma, from calendar years 1992 through 2007, American Indians have consistently shown higher birth rates in comparison to whites and people of all races combined. An increase can be seen for American Indians from 2004 through 2007.

BIRTH RATES FOR ADOLESCENT MOTHERS

Although there appears to be an overall downward trend for the general population, Oklahoma American Indian adolescents have shown markedly higher birth rates in comparison to the adolescents in the Oklahoma white population and of all races combined. In addition, a clear upward trend can be seen from 2003 through 2007 in the American Indian population.

The proportion of low birth weight American Indian, white and all races babies have been steadily increasing over the time period from 1992 through 2007. Although the proportion of low birth weight babies has remained slightly lower than the white and all races population during this time, percent of low birth weight babies rose and was nearly equivalent for American Indians compared to the white population in 2007.

Percentages of high birth weights (8.8 lbs or greater) have been steadily decreasing during the time period from 1992 through 2007. Even so, the proportion of high birth weight American Indian babies continues to be higher than that of the white and all races populations.

The yearly proportion of Oklahoma American Indian women receiving no prenatal care has remained slightly higher than the white and all races populations for the 16 year time period from 1992 through 2007. It appears that the yearly proportions for white and all races women have been increasing since 1999 and that all populations are increasing in proportion of pregnant women receiving no prenatal care.

The proportion of women reporting alcohol use during pregnancy has noticeably decreased since 1992. Although the proportion of American Indian women who reported drinking during their pregnancy was higher than that of the white and all races populations in the early 1990's, the proportions for each race have dropped and are now all equal at approximately one half of a percent, showing virtually no disparity in 2006. The newest data, from 2007, does reflect a slight increase for American Indians and a slight decrease for whites, but this is not a significant change from the previous year.

TOBACCO USE DURING PREGNANCY

For the years 1992 through 2007, Oklahoma American Indian women have reported higher proportions of smoking during pregnancy. However, in the more recent years (since 2003) less of a disparity has existed because the white and all races proportions have risen slightly.

Chapter 4. Maternal and Child Health

INFANT MORTALITY

Oklahoma Infant* Mortality Rates
Calendar Years 1990-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
NEONATAL MORTALITY

Oklahoma Neonatal* Mortality Rates
Calendar Years 1990-2003

* Thirty Days of Age or Less

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
POST-NEONATAL MORTALITY

Oklahoma Post Neonatal* Mortality Rates
Calendar Years 1990-2003

Rate Per 1,000 Births

* One Month to One Year of Age

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
# Causes of Infant Mortality

## Leading Causes of Infant Deaths

**Leading Causes of Infant Deaths for Oklahoma American Indians**

<table>
<thead>
<tr>
<th>#</th>
<th>Cause</th>
<th># Deaths</th>
<th>Rate per 1,000 Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Congenital malformations, deformations and chromosomal abnormalities</td>
<td>34</td>
<td>1.3</td>
</tr>
<tr>
<td>2</td>
<td>Sudden Infant Death Syndrome (SIDS)</td>
<td>24</td>
<td>0.9</td>
</tr>
<tr>
<td>3</td>
<td>Short gestation and low birth weight disorders</td>
<td>15</td>
<td>0.6</td>
</tr>
<tr>
<td>4</td>
<td>Newborn affected by maternal complications of pregnancy</td>
<td>11</td>
<td>0.4</td>
</tr>
<tr>
<td>5</td>
<td>Unintentional injuries</td>
<td>7</td>
<td>0.3</td>
</tr>
</tbody>
</table>

**Leading Causes of Infant Deaths for Oklahoma Whites**

<table>
<thead>
<tr>
<th>#</th>
<th>Cause</th>
<th># Deaths</th>
<th>Rate per 1,000 Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Congenital malformations, deformations and chromosomal abnormalities</td>
<td>329</td>
<td>1.7</td>
</tr>
<tr>
<td>2</td>
<td>Short gestation and low birth weight disorders</td>
<td>168</td>
<td>0.9</td>
</tr>
<tr>
<td>3</td>
<td>Sudden Infant Death Syndrome (SIDS)</td>
<td>109</td>
<td>0.6</td>
</tr>
<tr>
<td>4</td>
<td>Diseases of the circulatory system</td>
<td>54</td>
<td>0.3</td>
</tr>
<tr>
<td>5</td>
<td>Newborn affected by complications of placenta, cord and membranes</td>
<td>48</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Leading Causes of Infant Deaths for Oklahoma All Races**

<table>
<thead>
<tr>
<th>#</th>
<th>Cause</th>
<th># Deaths</th>
<th>Rate per 1,000 Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Congenital malformations, deformations and chromosomal abnormalities</td>
<td>419</td>
<td>1.7</td>
</tr>
<tr>
<td>2</td>
<td>Short gestation and low birth weight disorders</td>
<td>251</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Sudden Infant Death Syndrome (SIDS)</td>
<td>163</td>
<td>0.7</td>
</tr>
<tr>
<td>4</td>
<td>Newborn affected by complications of placenta, cord and membranes</td>
<td>75</td>
<td>0.3</td>
</tr>
<tr>
<td>4</td>
<td>Diseases of the circulatory system</td>
<td>71</td>
<td>0.3</td>
</tr>
<tr>
<td>5</td>
<td>Newborn affected by maternal complications of pregnancy</td>
<td>70</td>
<td>0.3</td>
</tr>
<tr>
<td>5</td>
<td>Respiratory distress of newborn</td>
<td>58</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
LEADING CAUSES OF DEATH

*Top 15 Causes of Death, Oklahoma American Indians, 1999-2003 (Ranked in Order of Mortality Rate)*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause of Death</th>
<th>Age-Adjusted Mortality Rate</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diseases of heart</td>
<td>329.3</td>
<td>3,011</td>
</tr>
<tr>
<td>2</td>
<td>Malignant neoplasms</td>
<td>241.4</td>
<td>2,410</td>
</tr>
<tr>
<td>3</td>
<td>Diabetes mellitus</td>
<td>77.7</td>
<td>757</td>
</tr>
<tr>
<td>4</td>
<td>Cerebrovascular diseases</td>
<td>72.3</td>
<td>631</td>
</tr>
<tr>
<td>5</td>
<td>Accidents (unintentional injuries)</td>
<td>68.2</td>
<td>940</td>
</tr>
<tr>
<td>6</td>
<td>Chronic lower respiratory diseases</td>
<td>51.6</td>
<td>474</td>
</tr>
<tr>
<td>7</td>
<td>Influenza and pneumonia</td>
<td>30.8</td>
<td>267</td>
</tr>
<tr>
<td>8</td>
<td>Chronic liver disease and cirrhosis</td>
<td>27.4</td>
<td>318</td>
</tr>
<tr>
<td>9</td>
<td>Nephritis, nephrotic syndrome and nephrosis</td>
<td>24.1</td>
<td>228</td>
</tr>
<tr>
<td>10</td>
<td>Septicemia</td>
<td>19.0</td>
<td>179</td>
</tr>
<tr>
<td>11</td>
<td>Intentional self-harm (suicide)</td>
<td>17.7</td>
<td>250</td>
</tr>
<tr>
<td>12</td>
<td>Alzheimer's disease</td>
<td>13.9</td>
<td>109</td>
</tr>
<tr>
<td>13</td>
<td>Atherosclerosis</td>
<td>10.8</td>
<td>92</td>
</tr>
<tr>
<td>14</td>
<td>Essential (primary) hypertension and hypertensive renal disease</td>
<td>9.1</td>
<td>79</td>
</tr>
<tr>
<td>15</td>
<td>Assault (homicide)</td>
<td>8.9</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: OK2SHARE, Oklahoma State Department of Health

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
HEART DISEASE MORTALITY TRENDS

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
Chapter 5. Mortality

CANCER MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Malignant Neoplasms
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
DIABETES MELLITUS MORTALITY TRENDS

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
Chapter 5. Mortality

CEREBROVASCULAR DISEASE (STROKE) MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Cerebrovascular Disease (Stroke) Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
UNINTENTIONAL INJURY MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Unintentional Injuries
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
CHRONIC LOWER RESPIRATORY DISEASE
MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Chronic Lower Respiratory Diseases
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
INFLUENZA AND PNEUMONIA MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Influenza and Pneumonia
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
CHRONIC LIVER DISEASE AND CIRRHOSIS

MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Chronic Liver Disease and Cirrhosis
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
NEPHRITIS, NEPHROTIC CONDITIONS AND NEPHROSIS (KIDNEY DISEASE) MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Nephritis, Nephrotic Conditions and Nephrosis (Kidney Disease)
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
SEPTICEMIA MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Septicemia
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
SUICIDE MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Suicide
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
ALZHEIMER’S DISEASE MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Alzheimer's Disease
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
ATHEROSCLEROSIS MORTALITY TRENDS

Ten Year Age-Adjusted Mortality Rate Trends for Deaths Due to Atherosclerosis
Oklahoma American Indians in Comparison to All Races, 1994-2003

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
HOMICIDE MORTALITY TRENDS

For 1994-1998 Homicide was lumped together with legal intervention. This likely caused higher rates in this time period.

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.
### MOST COMMONLY DIAGNOSED CANCERS IN OKLAHOMA AMERICAN INDIANS

*Top 10 Most Commonly Diagnosed Cancer Sites, Oklahoma American Indians, 1997-2007*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Primary Cancer Site</th>
<th>Age-Adjusted Incidence Rate</th>
<th>Number of Cancers Diagnosed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lung and bronchus</td>
<td>94.8</td>
<td>2,189</td>
</tr>
<tr>
<td>2</td>
<td>Breast (Excluding In Situ)</td>
<td>71.0</td>
<td>1,777</td>
</tr>
<tr>
<td>3</td>
<td>Prostate</td>
<td>64.5</td>
<td>1,458</td>
</tr>
<tr>
<td>4</td>
<td>Colon excluding rectum</td>
<td>47.5</td>
<td>1,070</td>
</tr>
<tr>
<td>5</td>
<td>Kidney and renal pelvis</td>
<td>23.7</td>
<td>587</td>
</tr>
<tr>
<td>6</td>
<td>Non-Hodgkin Lymphoma</td>
<td>21.7</td>
<td>511</td>
</tr>
<tr>
<td>7</td>
<td>Rectum and rectosigmoid</td>
<td>19.5</td>
<td>471</td>
</tr>
<tr>
<td>8</td>
<td>Bladder</td>
<td>15.2</td>
<td>342</td>
</tr>
<tr>
<td>9</td>
<td>Corpus uteri (uterine)</td>
<td>13.9</td>
<td>350</td>
</tr>
<tr>
<td>10</td>
<td>Pancreas</td>
<td>11.6</td>
<td>266</td>
</tr>
</tbody>
</table>

*Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.*
Chapter 6. Cancer Incidence

CANCER INCIDENCE—ALL SITES (TYPES)

The graphs below and on the following twelve pages outline, by cancer type 1) the yearly Age-Adjusted Incidence Rates (AAIR) for cancers trended out over the years 1997 through 2007 in comparison to the white and all races populations, 2) the cancer AAIRs for this combined period, and 3) the percentage of cancer cases, by race, that were diagnosed at an advanced (distant) stage during this same time period.

For all types of cancer combined, the rates (shown below) have been higher for American Indians over the period from 1997-2007 in comparison to the white and all races populations. The percent of cases diagnosed at a distant stage was slightly higher for American Indians compared to the white population.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
LUNG CANCER INCIDENCE

For the period from 1997-2007, the rate of lung cancer diagnoses was higher, overall, compared to white and all races populations. From 2001 through 2007, a decrease in incidence can be seen for the white and all races populations but shows an increasing disparity from 2001 through 2007 for American Indians. The percentage of American Indian lung cancer cases that were diagnosed at an advanced (distant) stage was lower in comparison to the percentage of white, black and all races cases diagnosed at distant stages, but only slightly.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
Chapter 6. Cancer Incidence

FEMALE BREAST CANCER INCIDENCE

For the period from 1997-2007, the rate of breast cancer in females was about equivalent for American Indians compared to the white and all races populations. The percentage of American Indian female breast cancer cases that were diagnosed at an advanced (distant) stage was about equal to the percentage of white and all races populations, but much lower than the black population.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
Chapter 6. Cancer Incidence

CERVICAL CANCER INCIDENCE

Cervical cancer is highly preventable. However, the rate of newly diagnosed cases of cervical cancer for American Indian women in Oklahoma was much higher compared to the white and all races populations during the time period from 1997-2006. However, the percentage of American Indian cervical cancer cases that were diagnosed at an advanced (distant) stage were considerably lower compared to the white and black populations.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
Chapter 6. Cancer Incidence

**COLORECTAL CANCER INCIDENCE**

For the period from 1997-2007, the rate of newly diagnosed colon and rectal cancers for American Indians was higher, overall, compared to the white and all races populations. However, the percentage of American Indian colon and rectal cancer cases that were diagnosed at an advanced (distant) stage was slightly higher than the white population but lower than the black and ‘other’ populations.

*Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.*
Chapter 6. Cancer Incidence

PROSTATE CANCER INCIDENCE

For the period from 1997-2007, the incidence rate of prostate cancer was only slightly higher overall for American Indians compared to the white and all races populations, and showed a dip below those populations in 2006-2007. The percentage of American Indian prostate cancer cases that were diagnosed at an advanced (distant) stage was slightly higher compared to the white population but lower than the black population.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
NON-HODGKIN’S LYMPHOMA INCIDENCE

For the period from 1997-2007, the rate of Non-Hodgkin's Lymphoma was slightly higher overall for American Indians compared to the white and all races populations. The percentage of American Indian Non-Hodgkin's Lymphoma cases that were diagnosed at an advanced (distant) stage was slightly higher compared to the white population but lower than the black population.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
KIDNEY AND RENAL PELVIS CANCER INCIDENCE

The overall rate of kidney and renal pelvis cancer for American Indians was much higher than the white and all races populations for the time period from 1997-2007. The percentage of kidney and renal pelvis cancers that were diagnosed at an advanced (distant) stage was also higher compared to the white and black populations.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
Chapter 6. Cancer Incidence

BLADDER CANCER INCIDENCE

The overall rate of bladder cancer for American Indians was lower than the white and all races populations for the time period from 1997-2007. The percentage of bladder cancers that were diagnosed at an advanced (distant) stage was slightly higher compared to the white population but distinctly lower than the black population.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
Cancer Incidence

CORPUS UTERI (UTERINE) CANCER INCIDENCE

The overall rate of uterine cancer for American Indians was higher than the white and all races populations for the time period from 1997-2007. The percentage of uterine cancers that were diagnosed at an advanced (distant) stage were several percentage points higher than the white population but distinctly lower than the black population.

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
Cancer Incidence

SKIN CANCER (MELANOMA) INCIDENCE

For the period from 1997 through 2007, the rate of skin cancer has remained consistently lower for American Indians, although it does show a slight increase overall since 1997. The percentage of skin cancers that were diagnosed at an advanced (distant) stage were slightly higher than the white and all races populations.

*Excluding Basal and Squamous Cell Carcinomas

Source: OK2SHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
STOMACH CANCER INCIDENCE

The rate of stomach cancer has remained consistently higher for American Indians during most of the time period from 1997-2007. The percentage that were diagnosed at an advanced (distant) stage were higher for American Indians in comparison to the white and black populations, but lower than those classified as ‘other’ population.

Source: OKSHARE, Oklahoma State Department of Health, Oklahoma Cancer Registry. All cancer registry data is linked to the Indian Health Service registry database to adjust for racial misclassification.
LIVER AND BILE DUCT CANCER INCIDENCE

The rates of liver and bile duct cancer for American Indians for each year from 1997 through 2007 was consistently higher than the white and all races populations, and took a sharp turn upward in 2007. Although these rates were consistently higher, the percentage of American Indian cases that were diagnosed at an advanced (distant) stage were slightly lower than the all races and white populations.
What is GPRA?

• Acronym for the “Government Performance and Results Act of 1993”.

• It is a federal law.

• Shows Congress how the Indian Health Service is performing based on a set of specific performance measures.

• Information that is reported to Congress must be backed up by a data supported audit trail that can be verified and validated.

• The “Clinical Reporting System” is the RPMS application the IHS Director has chosen to help obtain clinical data for GPRA.

• GPRA data is incorporated in the annual budget request for IHS.
GPRA USER POPULATION: Any AI/AN patient who is alive on the last day of the report period and residing in the defined community with at least one visit to any clinic in the three years prior to the end of the report period. *NOTE: This definition is not comparable to the Official User Population definition that was developed by IHS to define its core population for statistical reporting to Congress.

ACTIVE CLINICAL POPULATION: Patient must be American Indian/Alaska Native (Beneficiary Classification: 01), must reside in a community included in the site’s “official” GPRA community taxonomy, must be alive on the last day of the report period, and must have two visits to medical clinics in the past three years.

Numerator: The numerator is the number of patients who meet the logic criteria for a performance measure.

Denominator: The denominator for a performance measure is the total patient population being reviewed. Each measure may have a different denominator.
**Measure:** (Non-GPRA measure) Proportion of patients with diagnosed diabetes prior to the end of the report period.

**Denominator**
User Population patients

**Numerator**
Anyone diagnosed with diabetes (POV 250.00-250.93) ever.
**Measure:** (Non-GPRA measure) Proportion of patients with diagnosed diabetes prior to the end of the report period who have a documented Hemoglobin A1c during the report period.

### Denominator

Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the report period, *and* at least two visits in the past year, *and* two DM-related visits ever. Key denominator for this and all diabetes-related topics below.

### Numerator

Hemoglobin A1c documented during the report period.
**Measure:** Proportion of patients with diagnosed diabetes with poor glycemic control (A1c > 9.5).

**Denominator**

Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the report period, and at least two visits in the past year, and two DM-related visits ever. Key denominator for this and all diabetes-related topics below.

**Numerator**

Poor control: A1c greater than (>) 9.5.
**Measure**: Proportion of patients with diagnosed diabetes with ideal glycemic control (A1c < 7.0).

**Denominator**

Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the report period, *and* at least two visits in the past year, *and* two DM-related visits ever. Key denominator for this and all diabetes-related topics below.

**Numerator**

Ideal control: A1c less than (<) 7.
**Measure:** Proportion of patients with diagnosed diabetes that have achieved blood pressure control (<130/80).

<table>
<thead>
<tr>
<th>Denominator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the Report Period, and at least two visits in the past year, and two DM-related visits ever. Key denominator for this and all diabetes-related topics below. Key denominator for this and all diabetes-related topics below.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Numerator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled BP, &lt; 130/80.</td>
</tr>
</tbody>
</table>
Chapter 7. Government Performance and Results Act (GPRA)
Diabetes: Dyslipidemia Assessment

**Measure:** Proportion of patients with diagnosed diabetes assessed for dyslipidemia (LDL cholesterol).

![Oklahoma City Area Indian Health Service Diabetes - LDL Assessment GPRA Year: July 1 - June 30](chart)

<table>
<thead>
<tr>
<th>Year</th>
<th>OCA Aggregate</th>
<th>2010 National Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>13.9</td>
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<tr>
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<td>2005</td>
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<td>64.4</td>
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<tr>
<td>2008</td>
<td>67.6</td>
<td>65.0</td>
</tr>
<tr>
<td>2009</td>
<td>69.0</td>
<td>65.0</td>
</tr>
</tbody>
</table>

**Denominator**

Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the Report Period, and at least two visits in the past year, and two DM-related visits ever. Key denominator for this and all diabetes-related topics below. Key denominator for this and all diabetes-related topics below.

**Numerator**

Patients with LDL completed during the report period, regardless of result.
**Measure**: Proportion of patients with diagnosed diabetes assessed for nephropathy.

**Denominator**

Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the report period, and at least two visits in the past year, and two DM-related visits ever. Key denominator for this and all diabetes-related topics below. Key denominator for this and all diabetes-related topics below.

**Numerator**

Patients with nephropathy assessment, defined as an estimated GFR and a quantitative urinary protein assessment during the report period or with evidence of diagnosis and/or treatment of ESRD at any time before the end of the report period.
**Measure:** Proportion of patients with diagnosed diabetes who receive an annual retinal examination.

**Denominator**

Active Diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) prior to the report period, and at least two visits in the past year, and two DM-related visits ever. Key denominator for this and all diabetes-related topics below. Key denominator for this and all diabetes-related topics below.

**Numerator**

Patients receiving a qualified retinal evaluation during the report period, or a documented refusal of a diabetic retinal exam.
Measure: Percent of patients who receive dental services.

Denominator
User Population patients, broken down by age groups: 0–5, 6–11, 12–19, 20–34, 35–44, 45–54, 55–74, 75 and older.

Numerator
Patients with a documented dental visit during the report period, including refusals.
**Measure**: Number of sealants placed per year in AI/AN patients.

**Denominator**
None

**Numerator**
Count only (no percentage comparison to denominator). For patients meeting the User Population definition, the total number of dental sealants and refusals during the Report Period. Age breakouts (HP 2010): <12; 12-18; >18.
**Measure**: Number of patients receiving one or more topical fluoride.

**Denominator**

None

**Numerator**

Count only (no percentage comparison to denominator). For patients meeting the User Population definition, the total number of patients with at least one topical fluoride treatment or refusal during the Report Period.
**Measure:** Influenza vaccination rates among adult patients age 65 years and older.

**Denominator**

Ages 65 and older.

**Numerator**

Patients with influenza vaccine or refusal documented during the report period or with a contraindication documented at any time before the end of the report period.
Chapter 7. Government Performance and Results Act (GPRA)
Adult Immunization: Pneumovax

**Measure:** Pneumococcal vaccination rates among adult patients age 65 years and older.

**Denominator**
Active Clinical patients ages 65 or older.

**Numerator**
Patients with Pneumococcal vaccine or contraindication documented at any time before the end of the Report Period or with a refusal in the past year.
**Measure:** Combined (4:3:1:3:3) immunization rates for AI/AN patients ages 19-35 months.

![Oklahoma City Area Indian Health Service Childhood Immunizations GPRA Year: July 1 - June 30](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>OCA Aggregate</th>
<th>2010 National Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>66.3</td>
<td>50.0</td>
</tr>
<tr>
<td>2007</td>
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<td>74.3</td>
<td>60.0</td>
</tr>
<tr>
<td>2009</td>
<td>75.1</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**Denominator**

User Population patients active in the Immunization Package who are 19–35 months at end of report period.

**Numerator**

Patients who have received the 4:3:1:3:3 combination (i.e., 4 DTaP, 3 Polio, 1 MMR, 3 HiB, 3 Hepatitis B), including refusals, contraindications, and evidence of disease.
Chapter 7. Government Performance and Results Act (GPRA)
Cancer Screening: Pap Smear Rates

**Measure:** Proportion of eligible women who have had a Pap screen within the previous three years.

**Denominator**
Female Active Clinical patients ages 21 through 64 without a documented history of hysterectomy. Patients must be at least 21 years of age at the beginning of the report period and less than 65 years of age as of the end of the report period.

**Numerator**
Patients with documented Pap smear in past three years or refusal in past year.
Chapter 7. Government Performance and Results Act (GPRA)
Cancer Screening: Mammogram Rates

**Measure:** Proportion of eligible women who have had mammography screening within the previous two years.

**Denominator**

Female Active Clinical patients ages 52 through 64, without a documented bilateral mastectomy or two separate unilateral mastectomies.

**Numerator**

Patients with documented mammogram in past two years or refusal in past year.
Measure: Proportion of eligible patients who have had appropriate colorectal cancer screening.

**Denominator**

Active Clinical patients ages 51-80 without a documented history of colorectal cancer or total colectomy, broken out by gender.

**Numerator**

Patients who have had ANY CRC colorectal screening, defined as any of the following: Fecal Occult Blood Test (FOBT) or Fecal Immunochemical Test (FIT) during the Report Period; flexible sigmoidoscopy or double contrast barium enema in the past five years; colonoscopy in the past 10 years, or a documented refusal in the past year.
**Measure:** Proportion of tobacco-using patients that receive tobacco cessation intervention.

**Denominator**

Active Clinical patients identified as current tobacco users prior to the report period, broken down by gender and age groups: <12, 12-17, 18 and older.

**Numerator**

Patients who have received or refused tobacco cessation counseling or received a prescription for a smoking cessation aid during the report period.
**Measure**: Alcohol use screening (to prevent Fetal Alcohol Syndrome) among appropriate female patients.

**Denominator**

Female Active Clinical patients ages 15 to 44 (child-bearing age).

**Numerator**

Patients screened for alcohol use, had an alcohol-related diagnosis or procedure, received alcohol-related patient education, or refused alcohol screening during the report period.
Chapter 7. Government Performance and Results Act (GPRA) Domestic (Intimate Partner) Violence Screening

**Measure:** Proportion of women who are screened for domestic violence.

### Denominator
Female Active Clinical patients ages 15-40.

### Nominator
Patients screened for or diagnosed with intimate partner (domestic) violence during the report period, including documented refusals in past year.
**Measure:** Proportion of adults ages 18 and over who are screened for depression.

**Denominator**
Active Clinical patients ages 18 and older, broken down by gender.

**Numerator**
Patients screened for depression or diagnosed with mood disorder at any time during the report period, including documented refusals in past year.
Chapter 7. Government Performance and Results Act (GPRA)
Comprehensive CVD Assessment

**Measure**: Proportion of active IHD patients who have a comprehensive assessment for all CVD-related risk factors.

**Denominator**

Active IHD patients ages 22 and older, defined as all Active Clinical patients diagnosed with ischemic heart disease (IHD) prior to the report period, and at least 2 visits during the report period, and 2 IHD-related visits ever.

**Numerator** (MUST meet all five numerators)

1) Patients with Blood Pressure value documented at least twice in prior two years.
2) With LDL completed in past five years, regardless of result.
3) Screened for tobacco use during the report period.
4) For whom a BMI could be calculated, including refusals in the past year.
5) Who have received any lifestyle adaptation counseling, including medical nutrition counseling, or nutrition, exercise or other lifestyle education during the report period.
### Measure:
Proportion of pregnant women screened for HIV.

#### Denominator
All pregnant Active Clinical patients with no documented miscarriage or abortion during the past 20 months and no recorded HIV diagnosis ever.

#### Numerator
Patients who were screened for or refused an HIV test during the past 20 months.
Chapter 8. Diabetes Audit Data

Data Table for Above Chart

<table>
<thead>
<tr>
<th>Audit Years</th>
<th># in registry</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>11,685</td>
<td>1,343</td>
</tr>
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<td>1999</td>
<td>15,820</td>
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<td>2000</td>
<td>18,016</td>
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<td>2001</td>
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<td>2002</td>
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<td>2004</td>
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<tr>
<td>2005</td>
<td>31,123</td>
<td>8,987</td>
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<td>2006</td>
<td>33,406</td>
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<td>2007</td>
<td>33,389</td>
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<td>2008</td>
<td>36,749</td>
<td>17,776</td>
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<tr>
<td>2009</td>
<td>36,742</td>
<td>17,817</td>
</tr>
</tbody>
</table>
Chapter 8. Diabetes Audit Data

Oklahoma City Area Diabetes Audit Data
Tobacco Use, 2000 - 2009

Audit Years
- Tobacco Users
- Not Current Users
- Unknown

Oklahoma City Area Diabetes Audit Data
Hemoglobin A1c Levels <7%, 1998 - 2009

Audit Years
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009

- 30%
- 29%
- 30%
- 39%
- 43%
- 49%
- 50%
- 52%
- 51%
- 40%
Chapter 8. Diabetes Audit Data

**Oklahoma City Area Diabetes Audit Data**
**Hemoglobin A1c Levels > 9.5%, 1998-2009**

![Graph showing diabetes audit data for hemoglobin A1c levels in Oklahoma City from 1998 to 2009. The data indicates a decrease in the percentage of patients with high A1c levels over the years.]

**Oklahoma City Area Diabetes Audit Data**
**Hemoglobin A1c Tested at Least One Time Per Year, 1998-2009**

![Graph showing diabetes audit data for the percentage of patients with hemoglobin A1c tested at least once per year in Oklahoma City from 1998 to 2009. The data shows an increase in the percentage of patients tested at least once per year over the years.]

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Chapter 8. Diabetes Audit Data

Oklahoma City Area Diabetes Audit Data
Percentage of Foot Exams, 1998 - 2009

Oklahoma City Area Diabetes Audit Data
Percentage of Dilated Eye Exams, 1998-2009
Chapter 8. Diabetes Audit Data

Oklahoma City Area Diabetes Audit Data
Percent with Diagnosed Hypertension, 1998-2009

Audit Years

Oklahoma City Area Diabetes Audit Data
Overall Controlled Blood Pressure (1998-2009)

Audit Years
Chapter 8. Diabetes Audit Data

Oklahoma City Area Diabetes Audit Data
Percentage of Diabetic Patients Receiving Dental Exams, 1998-2009

Audit Years

0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%


33% 28% 32% 31% 36% 37% 42% 43% 42% 38% 36% 34%
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Chapter 9. I/T/U Health Systems Data (National Data Warehouse)

The current I/T/U health systems data is a brief summary of aggregate data for the Oklahoma City Area. All I/T/U facilities export encounter and patient registration data to the IHS National Data Warehouse (NDW). The NDW generates the following reports for the Area: Ambulatory Patient Care Workload Report 1A, Inpatient Discharges, Visits by ICD9 Disease Classification for Outpatient visits and Inpatient admissions. The reports include data through FY 2009.

You will find summary tables of the Top 10 Diagnoses for Outpatient Visits and Inpatient Visits (Discharge Diagnoses). For the top three disease classes, the top five diagnosis codes for each are broken out and listed for your information.

Top 10 Outpatient Visit Diagnoses By Disease Classification

<table>
<thead>
<tr>
<th>Disease Classification: For Outpatient Visits between (10/1/2008-9/30/09)</th>
<th>Number of</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENDOCRINE, NUTRITIONAL, METABOLIC AND IMMUNITY DISORDERS</td>
<td>251,977</td>
</tr>
<tr>
<td>1. 250.00 Diabetes Uncomplicated Type II/NIDDM</td>
<td>114,985</td>
</tr>
<tr>
<td>2. 250.02 Diabetes Uncontrolled, Type II</td>
<td>45,369</td>
</tr>
<tr>
<td>3. 272.4 Hyperlipidemia NEC/NOS</td>
<td>22,549</td>
</tr>
<tr>
<td>4. 244.9 Hypothyroidism NOS</td>
<td>17,041</td>
</tr>
<tr>
<td>5. 278.00 Obesity, Unspecified</td>
<td>3,720</td>
</tr>
<tr>
<td>DISEASES OF THE CIRCULATORY SYSTEM</td>
<td>209,233</td>
</tr>
<tr>
<td>1. 401.9 Hypertension NOS</td>
<td>128,152</td>
</tr>
<tr>
<td>2. 401.1 Benign Hypertension</td>
<td>41,620</td>
</tr>
<tr>
<td>3. 414.00 Coronary atherosclerosis of unspec. type of vessel native/graft</td>
<td>6,574</td>
</tr>
<tr>
<td>4. 427.31 Atrial Fibrillation</td>
<td>6,135</td>
</tr>
<tr>
<td>5. 428.0 Congestive Heart Failure</td>
<td>2,714</td>
</tr>
<tr>
<td>DISEASES OF THE RESPIRATORY SYSTEM</td>
<td>165,976</td>
</tr>
<tr>
<td>1. 465.9 Acute Upper Respiratory Infection NOS</td>
<td>26,629</td>
</tr>
<tr>
<td>2. 493.90 Asthma Unspecified</td>
<td>23,983</td>
</tr>
<tr>
<td>3. 477.9 Allergic Rhinitis</td>
<td>19,596</td>
</tr>
<tr>
<td>4. 462.0 Acute Pharyngitis</td>
<td>15,559</td>
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<tr>
<td>5. 461.9 Acute Sinusitis NOS</td>
<td>11,245</td>
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<tr>
<td>DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS</td>
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<tr>
<td>DISEASES OF MUSCULOSKELETAL SYSTEM &amp; CONNECTIVE TISSUE</td>
<td>126,203</td>
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<td>MENTAL DISORDERS</td>
<td>125,517</td>
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<td>DISEASES OF THE DIGESTIVE SYSTEM</td>
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<tr>
<td>INJURY AND POISONING</td>
<td>59,547</td>
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<tr>
<td>DISEASES OF THE GENITOURINARY SYSTEM</td>
<td>57,313</td>
</tr>
<tr>
<td>DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE</td>
<td>54,843</td>
</tr>
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</table>
## Top 10 Inpatient Discharge Diagnoses By Disease Classification

<table>
<thead>
<tr>
<th>Disease Class: FY 2008 (10/1/2008-9/30/09)</th>
<th># Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. DISEASES OF THE DIGESTIVE SYSTEM</strong></td>
<td>1,185</td>
</tr>
<tr>
<td>1. 577.0 Acute pancreatitis</td>
<td>157</td>
</tr>
<tr>
<td>2. 540.9 Acute appendicitis NOS</td>
<td>118</td>
</tr>
<tr>
<td>3. 558.9 Noninfectious gastroenteritis and colitis</td>
<td>75</td>
</tr>
<tr>
<td>4. 574.10 Cholelith with cholecystitis NEC</td>
<td>70</td>
</tr>
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<td>5. 574.00 Cholelith with acute cholecystitis</td>
<td>50</td>
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<td><strong>2. COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND Puerperium</strong></td>
<td>1,032</td>
</tr>
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<td>1. 654.21 Previous cesarean section delivery NOS</td>
<td>367</td>
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<td>2. 664.01 During delivery;1st-degree perineal lac; delivered, w/or w/o ante cond.</td>
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<td>3. 650 Normal delivery</td>
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<tr>
<td>4. 664.11 During delivery;2nd-degree perineal lac; delivered, w/or w/o ante cond.</td>
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<tr>
<td>5. 645.11 Post Term Preg Deliv w/ or w/out antep cond</td>
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<td><strong>3. DISEASES OF THE RESPIRATORY SYSTEM</strong></td>
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<tr>
<td>1. 486 Pneumonia, organism NOS</td>
<td>386</td>
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<tr>
<td>2. 491.21 Obstructive chronic bronchitis with (acute) exacerbation</td>
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<tr>
<td>3. 493.02,493.20,493.22,493.90-92 Asthma and asthma related diagnoses</td>
<td>50</td>
</tr>
<tr>
<td>4. 466.11,466.19 Acute bronchiolitis due to RSV or other infectious organism</td>
<td>77</td>
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<td>5. 518.81 Acute respiratory failure</td>
<td>21</td>
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<td><strong>5. DISEASES OF THE CIRCULATORY SYSTEM</strong></td>
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<td><strong>7. INJURY AND POISONING</strong></td>
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<td><strong>9. NEOPLASMS</strong></td>
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<td><strong>10. DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS</strong></td>
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Chapter 9. I/T/U Health Systems Data (National Data Warehouse)

Workload for the Oklahoma City Area

Outpatient Visits & Primary Care Patient Visits

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Outpatient Visit (OPV)</th>
<th>Primary Care Patient Visit (PCPV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>1,459,511</td>
<td>906,823</td>
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<tr>
<td>2000</td>
<td>1,489,122</td>
<td>915,680</td>
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<tr>
<td>2001</td>
<td>1,446,716</td>
<td>889,020</td>
</tr>
<tr>
<td>2002</td>
<td>1,489,508</td>
<td>868,738</td>
</tr>
<tr>
<td>2003</td>
<td>1,693,568</td>
<td>975,947</td>
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<tr>
<td>2004</td>
<td>1,826,888</td>
<td>1,018,858</td>
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<tr>
<td>2005</td>
<td>1,862,194</td>
<td>1,030,404</td>
</tr>
<tr>
<td>2006</td>
<td>2,003,640</td>
<td>1,118,523</td>
</tr>
<tr>
<td>2007</td>
<td>2,115,120</td>
<td>1,045,122</td>
</tr>
<tr>
<td>2008</td>
<td>2,234,077</td>
<td>1,056,212</td>
</tr>
<tr>
<td>2009</td>
<td>2,450,354</td>
<td>1,102,719</td>
</tr>
</tbody>
</table>
Chapter 9. I/T/U Health Systems Data (National Data Warehouse)

Workload for the Oklahoma City Area

OCA Total Dental Visits
FY 2006-FY 2009

OCA Dental Visits Workload
I/T/U Total

Source: IHS NDW Dental Workload Report with 38 I/T/U Facilities Reporting Dental Data
Inpatient Workload

The inpatient data is collected from the Inpatient 202 (Census) reports from each federal and tribal hospital. These reports are reconciled with the Area Statistical Officer each Fiscal Year.

OCA Total Inpatient
# of Discharges
Fiscal Years 1999-2009

Newborn Admissions

OCA Total Inpatient
Newborn Births Occurring at IHS and Tribal Hospitals
Fiscal Years 1999-2009
Inpatient Statistics Fiscal Year 1999-2009

OCA Total Inpatient
Average Daily Patient Load (ADPL)
Fiscal Years 1999-2009

OCA Total Inpatient
Average Length of Stay (ALOS) for all Discharges
Fiscal Years 1999-2009
In Oklahoma, from Oklahoma State fiscal year (beginning July 1) 2001 through 2008, American Indians have consistently shown higher admission rates in comparison to the white population that of all races combined. Blacks have the highest total admission rates for the ODMHSAS-funded facilities. An increase can be seen for American Indians from 2004 through 2008. A slight upward trend for all races separate and combined is visible between 2005 and 2008.

Source: ODMHSAS, Oklahoma Department of Mental Health and Substance Abuse Services. All admissions are from the ODMHSAS funded facilities and do not reflect all treatment facilities. All rates were calculated using 2000 census data.

*The number of persons receiving treatment is a duplicated count. That is, if a person goes into treatment more than
Methamphetamine Treatment Admissions to Oklahoma Department of Mental Health and Substance Abuse Services (ODMHSAS) Facilities*

In Oklahoma, from Oklahoma State fiscal year (beginning July 1) 2001 through 2008, American Indians have consistently shown higher admission rates for methamphetamine treatment in comparison to other populations and that of all races combined. Blacks have the lowest methamphetamine treatment admission rates for the ODMHSAS-funded facilities. A decrease can be seen from 2006 through 2008 for American Indians, whites and all races. The black rates appear to level off during these years. A marked upward trend for all races separate and combined is visible between 2001 through 2004.

Source: ODMHSAS, Oklahoma Department of Mental Health and Substance Abuse Services. All admissions are from the ODMHSAS funded facilities and do not reflect all treatment facilities. All rates were calculated using 2000 census data.

*The number of persons receiving treatment is a duplicated count. That is, if a person goes into treatment more than once during the year, they would be counted more than once in the numerator.
Alcohol Abuse Treatment Admissions to Oklahoma Department of Mental Health and Substance Abuse Services (ODMHSAS) Facilities*

In Oklahoma, from Oklahoma State fiscal year (beginning July 1) 2001 through 2008, American Indians have consistently shown higher admission rates for alcohol abuse treatment in comparison to other populations and that of all races combined. Whites have the lowest alcohol abuse treatment admission rates for the ODMHSAS-funded facilities. Starting in 2003, a marked decrease in rates for American Indian and black populations occurred. However, a slight increase can be seen from 2006 through 2008 for all races separate and combined.

Source: ODMHSAS, Oklahoma Department of Mental Health and Substance Abuse Services. All admissions are from the ODMHSAS funded facilities and do not reflect all treatment facilities. All rates were calculated using 2000 census data.
In Oklahoma, from Oklahoma State fiscal year (beginning July 1) 2001 through 2008, the black population has consistently shown higher admission rates for marijuana treatment in comparison to other populations and that of all races combined. Whites have the lowest marijuana treatment admission rates for the ODMHSAS-funded facilities. A slight upward trend (but marked for the black population) can be seen beginning in 2006.

Source: ODMHSAS, Oklahoma Department of Mental Health and Substance Abuse Services. All admissions are from the ODMHSAS funded facilities and do not reflect all treatment facilities. All rates were calculated using 2000 census data.

*The number of persons receiving treatment is a duplicated count. That is, if a person goes into treatment more than once during the year they would be counted more than once in the numerator.*
Overview of CHR History and background

In 1968, the Community Health Representative (CHR) Program was the first tribally contracted program. The CHR Mission is to provide the highest level of preventive health care through advocacy and education by addressing the physical, mental, social and spiritual health. CHRs are trained paraprofessionals who partner with other members of the patient’s health care team to assure that comprehensive, culturally acceptable personal and public health services are available and accessible to AI/AN people. Oklahoma Area currently has 37 Tribally Operated Programs (1 Urban CHR) with approximately 195 CHRs.

The CHR Patient Care Component (PCC) is available to all tribal CHR programs. CHR PCC allows Tribal programs to track program and staff performance and progress. In addition, CHR PCC is the only means Headquarters CHR Program staff has to document CHR program worth on a national level. The CHR PCC data is also utilized for congressional inquiries and budget justifications and requests for the program. Out of the 37 Tribally Operated programs there were 11 programs entering data in 2008 and 8 programs in 2009.

Only 1/3 of the OCA’s Tribal CHR programs are reporting data.

Source: IHS National Data Warehouse, IHPES Portal
Chapter 11. Community Health Representatives (CHR)

Services Provided

CHRs are literally the eyes and ears for clinical staff in the patient’s homes. CHRs can provide valuable insight to medical staff on patient compliance issues and observations on hazardous living environments through CHR PCC documentation. Not only does CHR PCC provide the clinical staff with supplementary patient insight, but it provides patient care values and data to help manage the patient’s wellness. CHR PCC Coding, Data Entry and Reports Trainings are provided in Oklahoma on an annual basis at minimum.

For more information about CHR PCC please contact CDR Dione Harjo at (405) 951-3847 or (405) 990-8439 or by email at dione.harjo@ihs.gov.

Source: IHS National Data Warehouse, IHPES Portal
Chapter 11. Community Health Representatives (CHR)

CHR Reporting

Top 10 Health Problem Codes

Source: IHS National Data Warehouse, IHPES Portal
CHR Reporting

Location of Encounters

Top Activity Locations
Oklahoma Area
for Fiscal Year 2009
Patient Data Only

Source: IHS National Data Warehouse, IHPES Portal
In Oklahoma, for the combined period of 2003 through 2007, the incidence rate for American Indians diagnosed with Tuberculosis was 11.3 per 100,000 persons. This rate is 2.5 times—or 60% higher – than the all races rate (4.5 per 100,000) and 3.6 times—or 73% higher than the white rate (3.1 per 100,000). The American Indian rate is 1.2 times higher—or 17% higher than the black rate (9.4 per 100,000). These rates are not age-adjusted and could be biased due to the age differences that may be present in each population.

Source: OSDH Tuberculosis Division, rates calculated by IHS-OCAO. All rates were calculated using 2000 census data, single race only. Because this data is not linked to the IHS patient registration database, it is possible that racial misclassification of American Indian cases has occurred and that the American Indian rates may be higher than reported here.
Mortality Rates for Tuberculosis in Oklahoma by Race

In Oklahoma, for 1999 through 2003, the age-adjusted mortality rate for American Indians diagnosed with Tuberculosis was 1.6 per 100,000 persons. This rate is 4 times—or 75% higher—than the all races rate (0.4 per 100,000) and over 5 times—or 81%-higher than the white rate (0.3 per 100,000). The American Indian rate is 2.6 times—or 63%- higher than the black rate (0.6 per 100,000).

Source: OK2SHARE, Oklahoma State Department of Health. All mortality data is linked to the Indian Health Service Registry database to adjust for racial misclassification.