

# Indian Health Service 2007 National Summary

## *Performance Measurement:*

*Improving healthcare for  
American Indians  
and  
Alaska Natives*



Government Performance and Results Act (GPRA)

February 2008

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# Acknowledgments



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# Introduction



The Indian Health Service (IHS), an agency within the Department of Health and Human Services, carries out the federal government's trust responsibility to provide health care services to eligible American Indian and Alaska Native (AI/AN) people. The AI/AN population is fast growing and suffers disproportionately from a number of health problems. For example, the 2002-2004 death rate from alcohol abuse was 6.5 times higher among AI/ANs than all races in 2003. During the same years, the AI/AN death rate from diabetes was almost three times higher than all races, and the suicide rate was 1.7 times higher. Despite these challenges, IHS has succeeded in substantially improving the health status of the AI/AN population, primarily by focusing on preventive and primary care services and developing a community-based public health system. As a result, the average death rate from all causes for the AI/AN population dropped a significant 28.4 percent between 1972-1974 and 2002-2004.

The Government Performance Results Act (GPRA) requires each agency to develop a performance based budget, including performance measures, to demonstrate its effectiveness in meeting its mission. GPRA performance measures for the Indian Health Service assess the Agency's progress toward improving quality and access to health care and reducing health disparities for the more than 1.4 million AI/AN people receiving care through the IHS network. In Fiscal Year (FY) 2007 there were a total of 34 annual GPRA clinical and non-clinical Measures. Thirty-three have been reported, and IHS met 27 (82%) of these. In addition, IHS has long term and annual performance measures developed in conjunction with the Office of Management and Budget Program Assessment Rating Tool (PART) reviews of individual IHS programs. Some of these PART measures are unique and distinct from GPRA measures, such as the measure to increase the number of hospitals and clinics using the Electronic Health Record. However, many PART measures are based on GPRA measures. For example, the Tribal PART tracks Tribal clinics' performance on 17 GPRA clinical measures. The PART of the Health Care Facilities Construction Program tracks performance at new facilities through 8 clinical GPRA measures.

# Introduction

This report provides a summary of results for the 22 clinical GPRA measures for FY 2007. These represent the performance of IHS and Tribally-operated health facilities in the 12 HIS Areas, based on aggregated data that the Clinical Reporting System (CRS) software extracted from individual patient health records at 191 participating sites. A dashboard display of the non-clinical measures results appears in Appendix A. Performance measures and results relating to PART reviews of individual programs are available at [www.ExpectMore.gov](http://www.ExpectMore.gov).

In FY 2007, eighteen of the twenty-two clinical measures met their pre-determined targets and twelve of these exceeded their targets. The remaining four clinical measures all came within 1% of meeting their targets for FY 2007. Nine of the eleven reported non-clinical GPRA measures met or exceeded their targets.

IHS and Tribal programs also met the IHS commitment to achieve a 10 percent *relative* increase in program performance between FY 2004 and FY 2007 on four measures, in accordance with the “One HHS” 10 Department-wide Management Objectives. All four met or exceeded their targets in FY 2007:

- Pneumococcal vaccination rates in adults aged 65 and older increased from 69% in FY 2004 to 79% in FY 2007. This rate exceeds the 2007 target of 76% by 3 percentage points. The improvement of Pneumococcal vaccination rates is important because studies have shown that AI/AN people are at high risk for this disease; the 2002-2004 AI/AN death rate from pneumonia and influenza was 50 percent higher than the 2003 U.S. all-races death rate.
- The screening rate for Domestic Violence/Intimate Partner Violence increased from 4% in FY 2004 to 36% in 2007, exceeding the 2007 target of 15% by 21 percentage points.
- The screening rate for alcohol use in women of childbearing age to prevent Fetal Alcohol Syndrome also increased dramatically, from 7% in FY 2004 to 41% in FY 2007, exceeding the target of 13% by 28 percentage points. This result also exceeds the IHS 2010 target of 25%.
- Dyslipidemia (LDL cholesterol) screening rates for patients with diabetes increased from 53% in FY 2004 to 61% in FY 2007, exceeding the 2007 target of 59% by 2 percentage points.

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Federal and Tribal facilities also made significant improvement on the following measures between FY 2006 and FY 2007:

- Increased the proportion of pregnant women screened for HIV from 65% to 74%;
- Increased the number of patients receiving topical fluorides from 95,439 to 107,934, an increase of 13%;
- Increased the proportion of patients age 18 and over screened for depression from 15% to 24%;
- Increased the proportion of patients with colorectal cancer screening from 22% to 26%.

The six GPRA measures that IHS uses to assess the quality of care for patients with diabetes are: Poor Glycemic Control, Ideal Glycemic Control, Blood Pressure Control, LDL Assessment, Nephropathy Assessment, and Retinopathy Assessment. Studies show that adequate control of blood glucose levels and blood pressure can prevent the onset or progression of complications associated with diabetes. Retinopathy and LDL Assessments help to identify diabetic patients who are at higher risk for developing heart disease and blindness. Nephropathy Assessments help to identify patients who are at risk for kidney disease.

IHS and Tribal programs met targets for four of six clinical measures related to care for patients with diabetes in FY 2007. The proportion of patients with blood pressure control increased by 2% to 39%, and the proportion of patients assessed for LDL increased by 1% to 61%. Retinal screening rates met the 2007 target to maintain at 49%, and a baseline rate of 40% was established for the new, more stringent nephropathy assessment standard. Although the Agency did not meet the target to increase by 1% the number of patients in ideal glycemic control, the rate was maintained at 31%. The target of reducing the proportion of patients in poor glycemic control by 1% was not met, with the proportion maintaining at 16%.

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Improvement on diabetes measures is particularly important given the continuing epidemic of diabetes among the AI/AN populations. In 2002, AI/AN people were 2.2 times more likely to have diagnosed diabetes than non-Hispanic whites, and the death rate from diabetes in the AI/AN community increased by almost 57 percent between 1972-1974 and 2002-2004. Between 1997 and 2003, the prevalence of diabetes increased by 41 percent in the population served by the IHS.

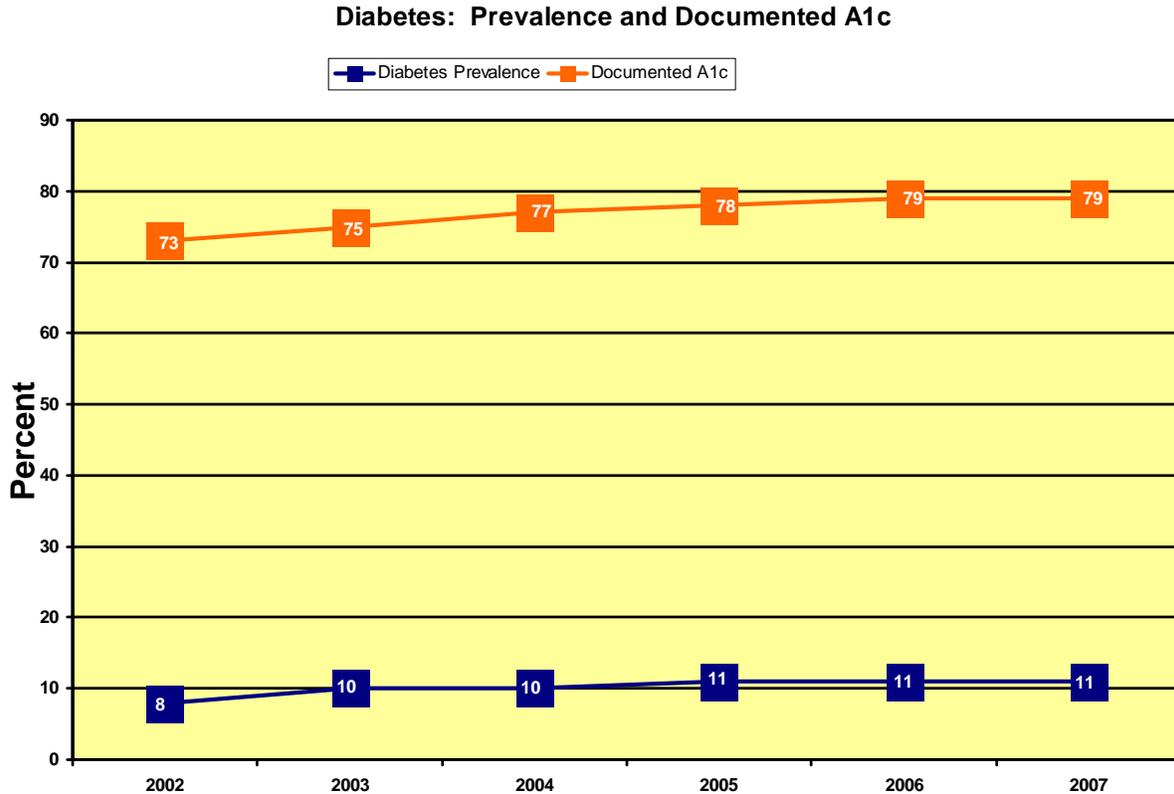
Overall, the Agency increased the proportion of clinical measures met in FY 2007 by 9 percentage points, from 73% in FY 2006 to 82% in FY 2007. The increasing cost of healthcare combined with the growing population and the increasing prevalence of diabetes and obesity represent ongoing challenges. FY 2007 GPRA measure results demonstrate that IHS continues to improve care for all users of the Indian healthcare system and to increase access to care throughout Indian Country. These improvements support our long-term mission to decrease health inequities among AI/AN people and in comparison to other racial and ethnic groups.

# Diabetes: Prevalence and Documented A1c

**Measure(s):** Prevalence: Proportion of patients with diagnosed diabetes prior to the end of the report period. Documented A1c: Proportion of patients with hemoglobin A1c documented during the Report Period, regardless of result.

**Importance:** *Diabetes is a major cofactor in morbidity as well as one of the leading causes of mortality among AI/AN people. Diabetes is a major risk factor for cardiovascular disease, and CVD is the leading cause of death for American Indians. "Documented A1c" refers to a blood test called the Hemoglobin A1c, which determines blood sugar levels in patients with diabetes. This test can be used to determine a patient's level of "glycemic control," or how well blood sugars are controlled. These levels of control are divided into "Ideal" (<7 percent); "Good" (7.0-7.9 percent); "Fair" (8.0-<9.5 percent); and "Poor" (>9.5 percent), based on national diabetes care standards.*

**2007 Target:** Diabetes Prevalence and Documented A1c are not GPRA measures but are tracked by CRS and provided for context.



**Data source:** CRS 7.0 electronic examination of 1,246,416 patient records for Diabetes prevalence and 93,118 for documented A1c.

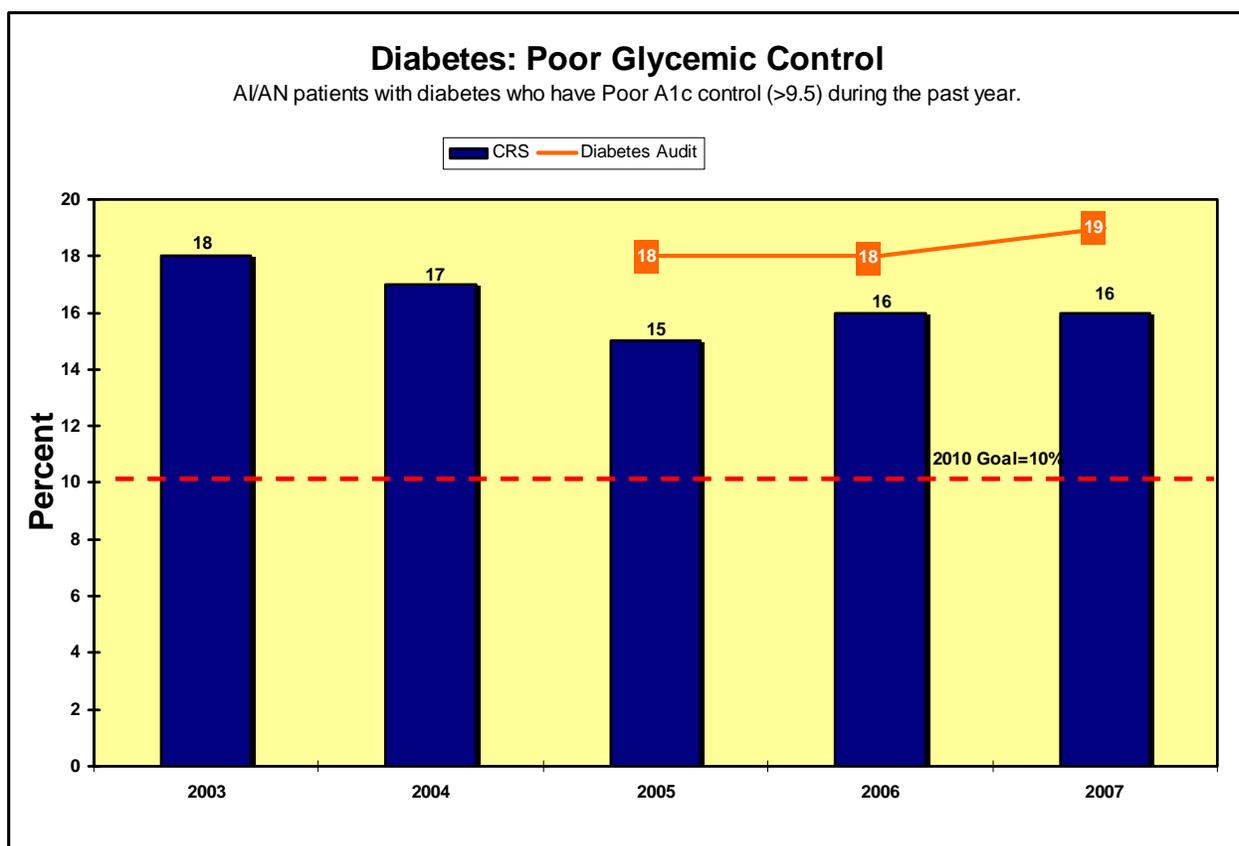
**Results and Analysis:** In FY 2007, the unadjusted diabetes prevalence rate among the IHS active patient population was 11% as measured by CRS. This is well above the national average of 7% for all races. The documented A1c rate for patients diagnosed with diabetes was 79%, which far exceeds the Healthy People 2010 goal of 65%.

# Diabetes: Poor Glycemic Control

**Measure:** Proportion of patients with diagnosed diabetes that have poor glycemic control.

**Importance:** *Reducing the number of patients with poor glycemic control will reduce the prevalence of diabetes complications. Clinical studies have shown that a 1% decrease in the absolute A1c level translates into a: 14% decrease in total mortality, 21% decrease in diabetes-related deaths, 14% decrease in myocardial infarction, 40% decrease in eye disease, 12% decrease in strokes, 43% decrease in amputations, and a 24% decrease in kidney failure.*

**2007 Target:** Decrease the proportion of patients diagnosed with diabetes that have poor glycemic control by 1% from the FY 2006 level of 16% to 15%.



**Data source:** CRS 7.0 electronic examination of 93,118 patient records. Diabetes audit data comes from the IHS Diabetes program. Audit data is based on different collection methods and exclusion criteria, but Audit data trends generally mirror CRS data trends.

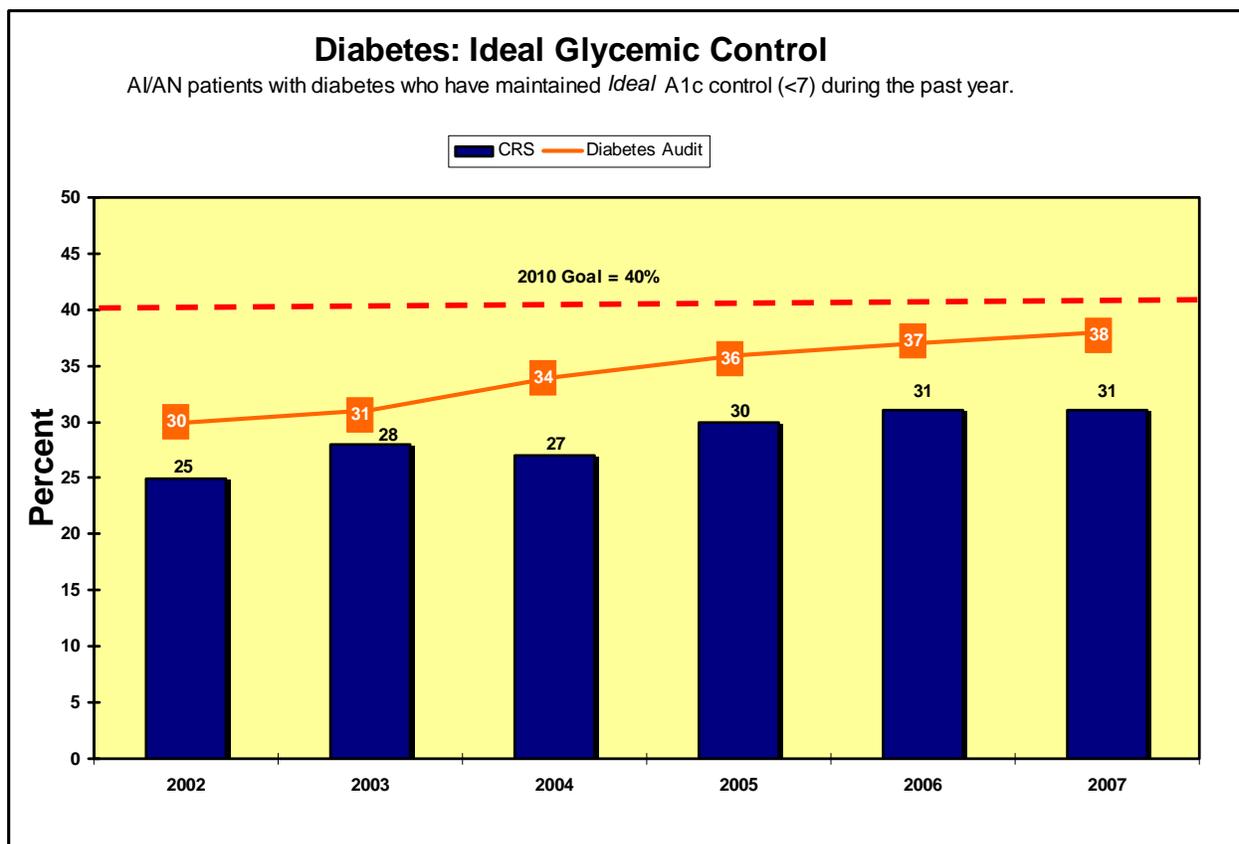
**Results and Analysis:** IHS did not meet the target to decrease the proportion of patients with poor glycemic control from 16% to 15%. The number of patients with poor glycemic control was maintained at 16%. IHS also did not meet the diabetes audit target to maintain the number of patients with poor control at 18%. The diabetes audit result showed an increase from 18% to 19%.

# Diabetes: Ideal Glycemic Control

**Measure:** Proportion of patients with diagnosed diabetes with ideal glycemic control (A1c<7.0).

**Importance:** Keeping blood sugar levels below 7 can slow or prevent the onset and progression of eye, kidney, and nerve disease caused by diabetes. Good blood sugar control also lowers the risk of heart attack and stroke.

**2007 Target:** Increase the proportion of patients with diabetes that have demonstrated ideal glycemic control by 1% above the FY 2006 level of 31% to 32%.



**Data source:** CRS 7.0 electronic examination of 93,118 patient records. Diabetes audit data comes from the IHS Diabetes program. Audit data is based on different collection methods and exclusion criteria, but Audit data trends generally mirror CRS data trends.

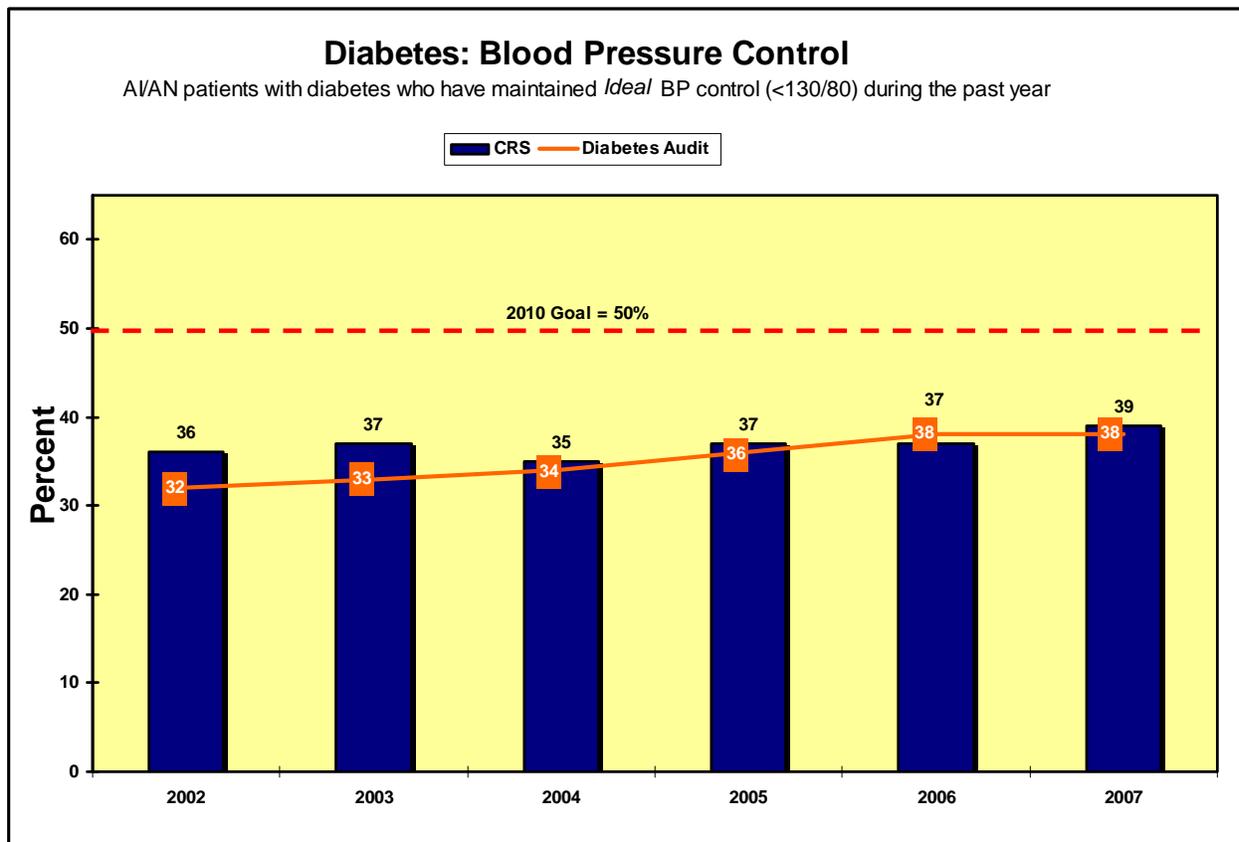
**Results and Analysis:** IHS did not meet the target to increase the proportion of patients with ideal glycemic control by 1%, from 31% in FY 2006 to 32% in FY 2007. The proportion of patients in ideal control was maintained at 31%. IHS met and exceeded the diabetes audit target to maintain the number of patients with ideal control at 37%. The diabetes audit result showed an increase from 37% to 38%.

# Diabetes: Blood Pressure Control

**Measure:** Proportion of patients with diagnosed diabetes that have achieved blood pressure control (BP < 130/80).

**Importance:** *Good blood pressure control can reduce the risk of complications from diabetes. A National Heart, Lung, and Blood Institute report indicates that the risk of heart disease and stroke doubles for every increase of 20 mm in systolic or 10 mm in diastolic pressure. Lower blood pressure levels in people with diabetes reduce the risk of heart disease and stroke by 33-50%. Blood pressure control also reduces the risk of eye, kidney, and nerve disease by one third.*

**2007 Target:** Maintain the proportion of patients with diagnosed diabetes that have achieved blood pressure control at the FY 2006 level of 37%.



**Data source:** CRS 7.0 electronic examination of 93,118 patient records. Diabetes audit data comes from the IHS Diabetes program. Audit data is based on different collection methods and exclusion criteria, but Audit data trends generally mirror CRS data trends.

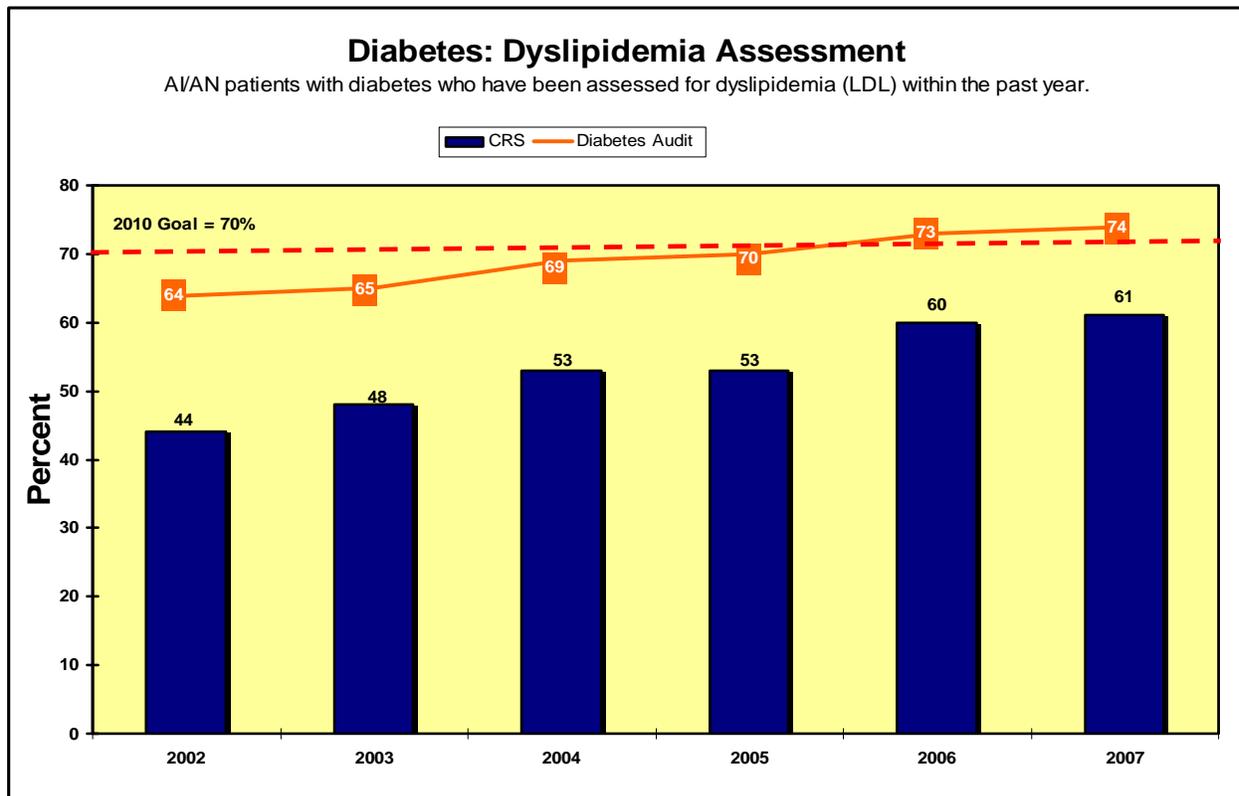
**Results and Analysis:** IHS exceeded the target for this measure, increasing the percent of patients with ideal blood pressure control to 39%. IHS met the the diabetes audit target to maintain the number of patients with blood pressure control at 38%.

# Diabetes: Dyslipidemia Assessment

**Measure:** Proportion of patients with diagnosed diabetes assessed for dyslipidemia.

**Importance:** *Dyslipidemia refers to disorders in the lipoprotein metabolism, including hypercholesterolemia (high LDL cholesterol), and low HDL cholesterol. Low LDL and total cholesterol levels help to protect diabetic patients from developing heart disease. Improved control of cholesterol levels reduces the risk of cardiovascular complications by 20-50%. National standards recommend that people with diabetes keep their total cholesterol levels below 200 mg/dl, and their LDL cholesterol levels below 130 mg/dl and ideally below 100 mg/dl. Diabetic patients are especially prone to develop heart disease; therefore identification and treatment of elevated lipids in diabetic patients is extremely important.*

**2007 Target:** Maintain the proportion of patients with diagnosed diabetes assessed for dyslipidemia at the FY 2006 level of 60%.



**Data source:** CRS 7.0 electronic examination of 93,118 patient records. Diabetes audit data comes from the IHS Diabetes program. Audit data is based on different collection methods and exclusion criteria, but Audit data trends generally mirror CRS data trends.

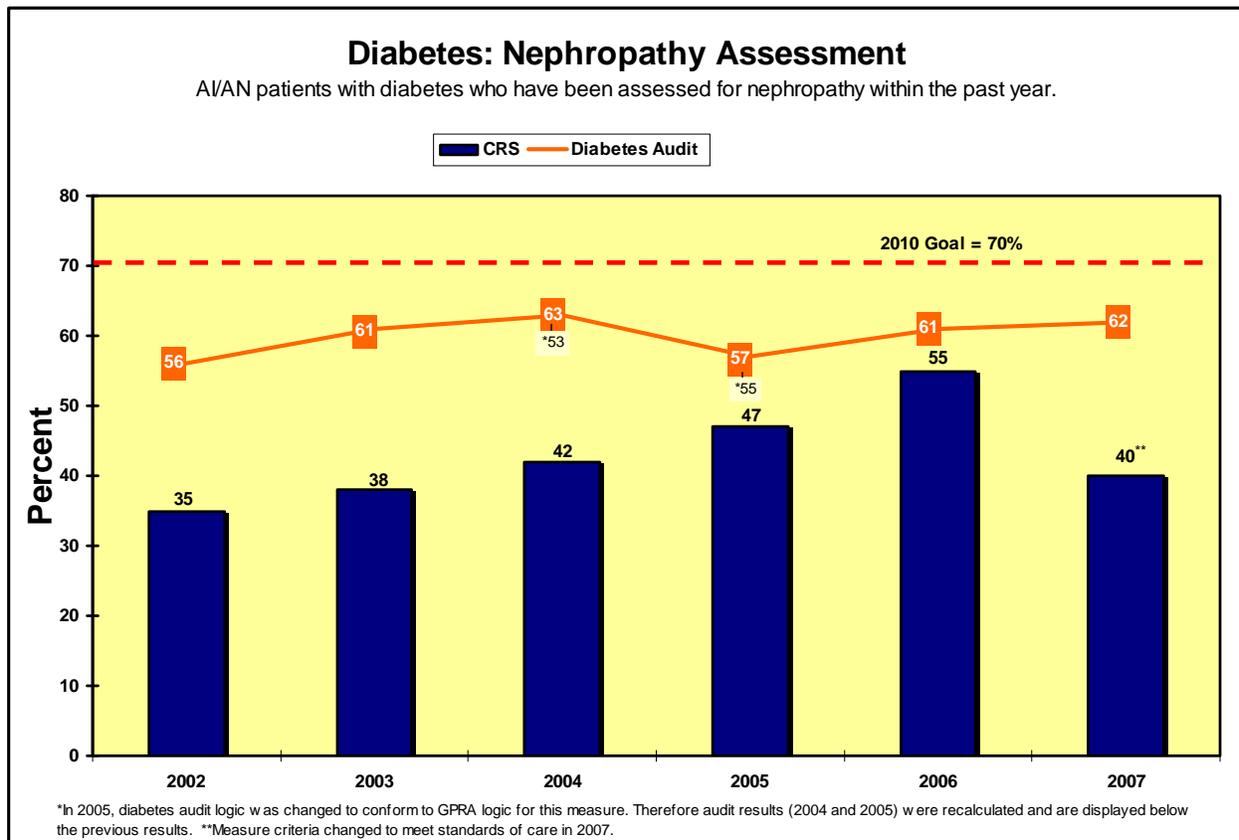
**Results and Analysis:** IHS met and exceeded the target for this measure, increasing the proportion of patients assessed for dyslipidemia by 1% from 60% in FY 2006 to 61% in FY 2007. This measure was included in the “One HHS” 10 Department-wide Management Objectives. IHS met and exceeded the goal of a 10% relative increase by FY 2007. The FY 2007 rate of 61% represents a 15% relative increase from the FY 2004 rate of 53%. IHS met and exceeded the diabetes audit target to maintain the number of patients assessed for dyslipidemia at 73%. The diabetes audit result showed an increase from 73% to 74%.

# Diabetes: Nephropathy Assessment

**Measure:** Proportion of patients with diagnosed diabetes assessed for nephropathy.

**Importance:** *Diabetes can cause kidney disease by damaging the parts of the kidneys that filter out wastes. Diabetic nephropathy, or kidney disease, can eventually lead to kidney failure. Diabetes is the leading cause of end stage renal disease (ESRD), which is a significant and growing problem in American Indian communities. Early identification of at risk patients may help prevent or delay the need for costly care such as dialysis or renal transplant. Microalbuminuria (or proteinuria) is measured in the urine with a urinalysis test. Microalbumin in the urine is an early sign of diabetic kidney disease. Proteinuria is also an independent predictor of cardiovascular disease, which is the number one killer of American Indian and Alaska Native adults.*

**2007 Target:** Establish a baseline for the proportion of patients with diagnosed diabetes assessed for nephropathy according to the IHS Diabetes Standards of Care guidelines.



**Data source:** CRS 7.0 electronic examination of 93,118 patient records. Diabetes audit data comes from the IHS Diabetes program. Audit data is based on different collection methods and exclusion criteria, but Audit data trends generally mirror CRS data trends.

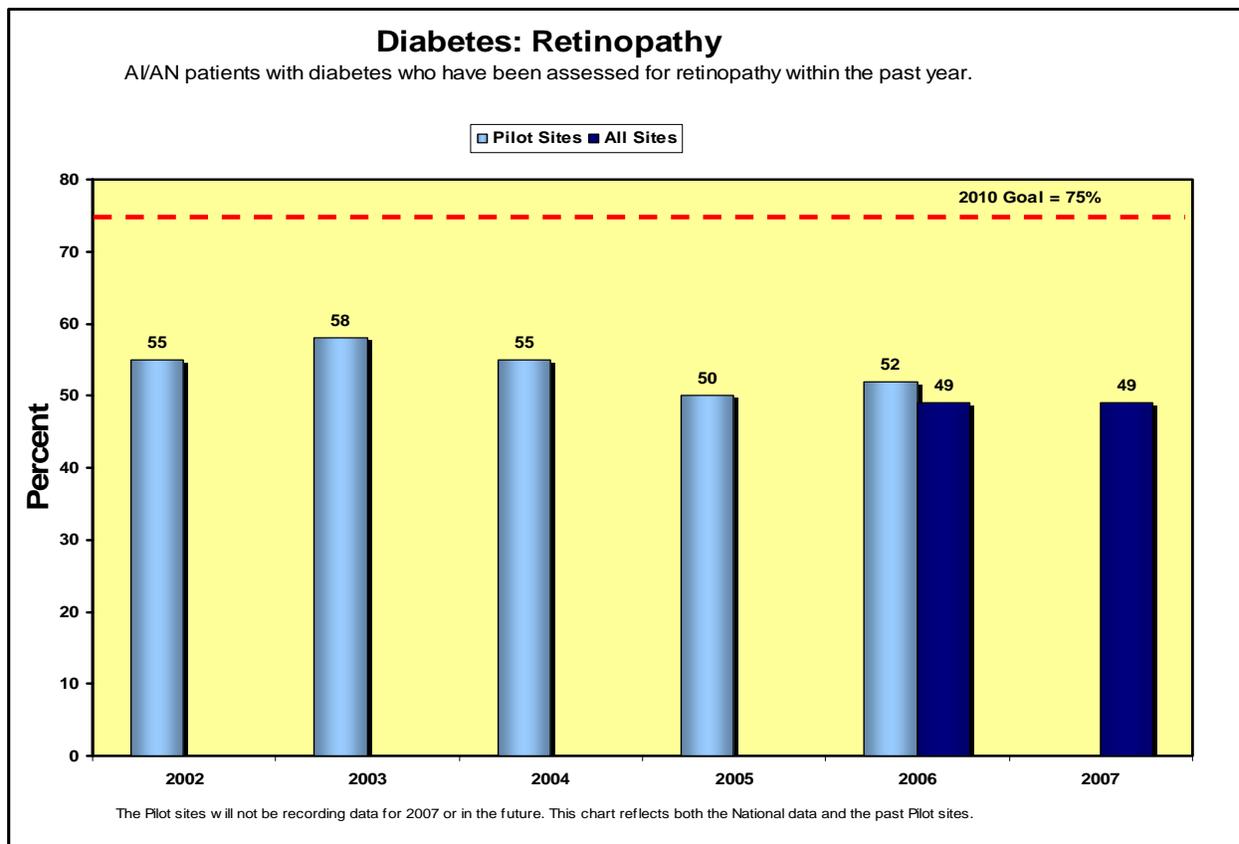
**Results and Analysis:** IHS met the target for this measure, setting a baseline for the number of diabetic patients assessed for nephropathy in FY 2007. IHS met and exceeded the diabetes audit target to maintain the number of patients screened for nephropathy at 61%. The diabetes audit result showed an increase from 61% to 62%. The Diabetes Audit will adopt the new standards of care guidelines in FY 2008.

# Diabetes: Retinopathy

**Measure:** Proportion of patients with diagnosed diabetes who receive an annual retinal examination.

**Importance:** *Diabetes can affect sight by damaging the blood vessels inside the eye, a condition known as “diabetic retinopathy.” Diabetic eye disease is a leading cause of blindness in the United States. Early detection of diabetic retinopathy (DR) is a fundamental part of the effort to reduce visual disability in diabetic patients. Clinical trials demonstrated that effective laser photocoagulation treatment of DR could reduce vision loss by 90%. These studies also underscore the need for early identification of DR at a time when laser photocoagulation is most effective.*

**2007 Target:** Maintain the proportion of patients with diagnosed diabetes who receive an annual retinal examination at the FY 2006 baseline level of 49%.



**Data source:** CRS 7.0 electronic examination of 93,118 patient records.

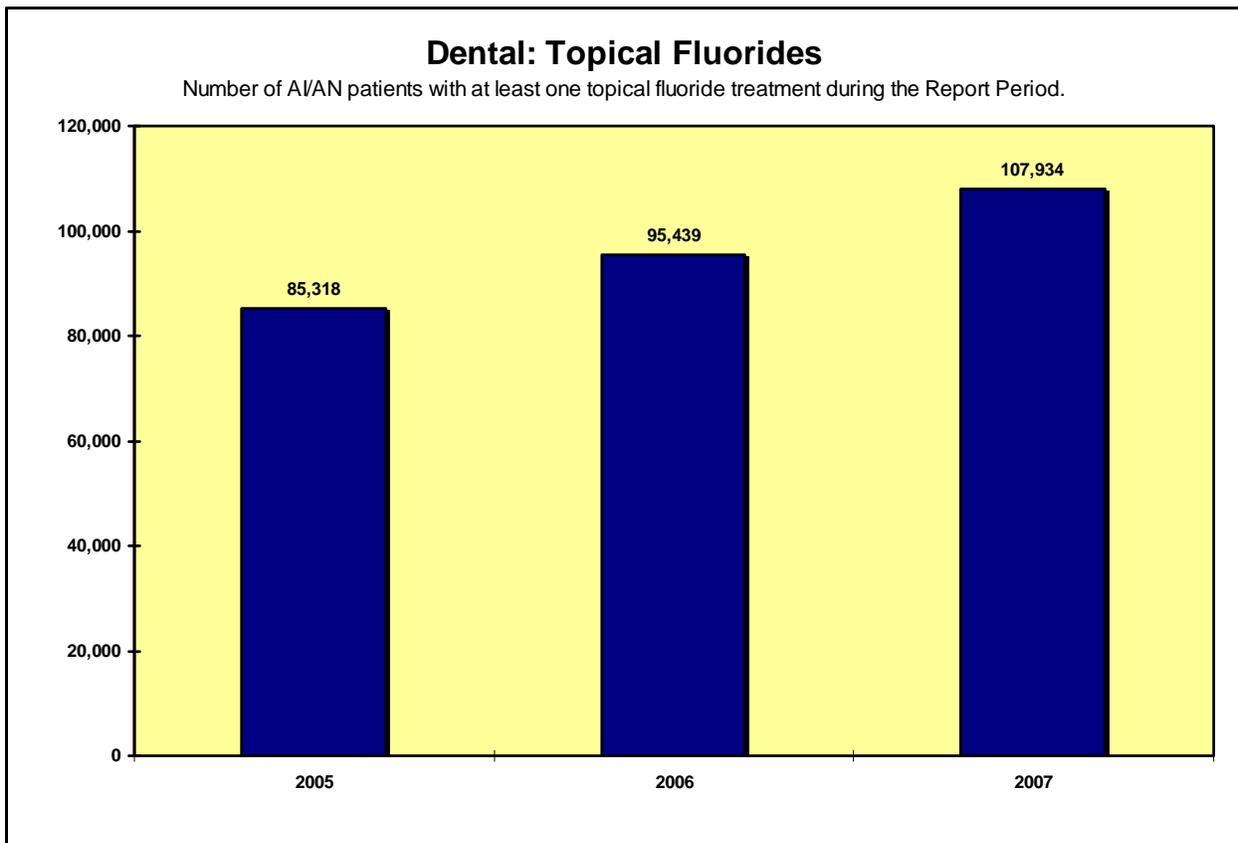
**Results and Analysis:** IHS met the target for this measure. The proportion of diabetic patients who received an annual diabetic retinal exam was maintained at 49% in FY 2006. Prior to 2006, this measure tracked performance only at designated sites with Telemedicine Systems.

# Dental: Topical Fluorides

**Measure:** Number of American Indian and Alaska Native patients with one or more topical fluoride treatments.

**Importance:** *The professional topical application of fluoride is an accepted caries-preventive procedure that is appropriate for children, adolescents, and adults. Topical fluorides are also useful when applied to exposed root surfaces. This is especially beneficial for older patients, who are vulnerable to root caries and root sensitivity as a result of the loss of periodontal attachment and/or xerostomia (dry mouth). As a public health measure, targeting those at higher risk for caries is a cost-effective procedure. Criteria for moderate-risk to high-risk children, adolescents, and adults might include the following: more than one active smooth-surface carious lesion; white spot lesions; poor oral hygiene; and/or past history of caries.*

**2007 Target:** Maintain the number of patients who received one or more topical fluoride treatment at the FY 2006 level of 95,439.



**Data source:** CRS 7.0 electronic examination of 1,246,416 patient records.

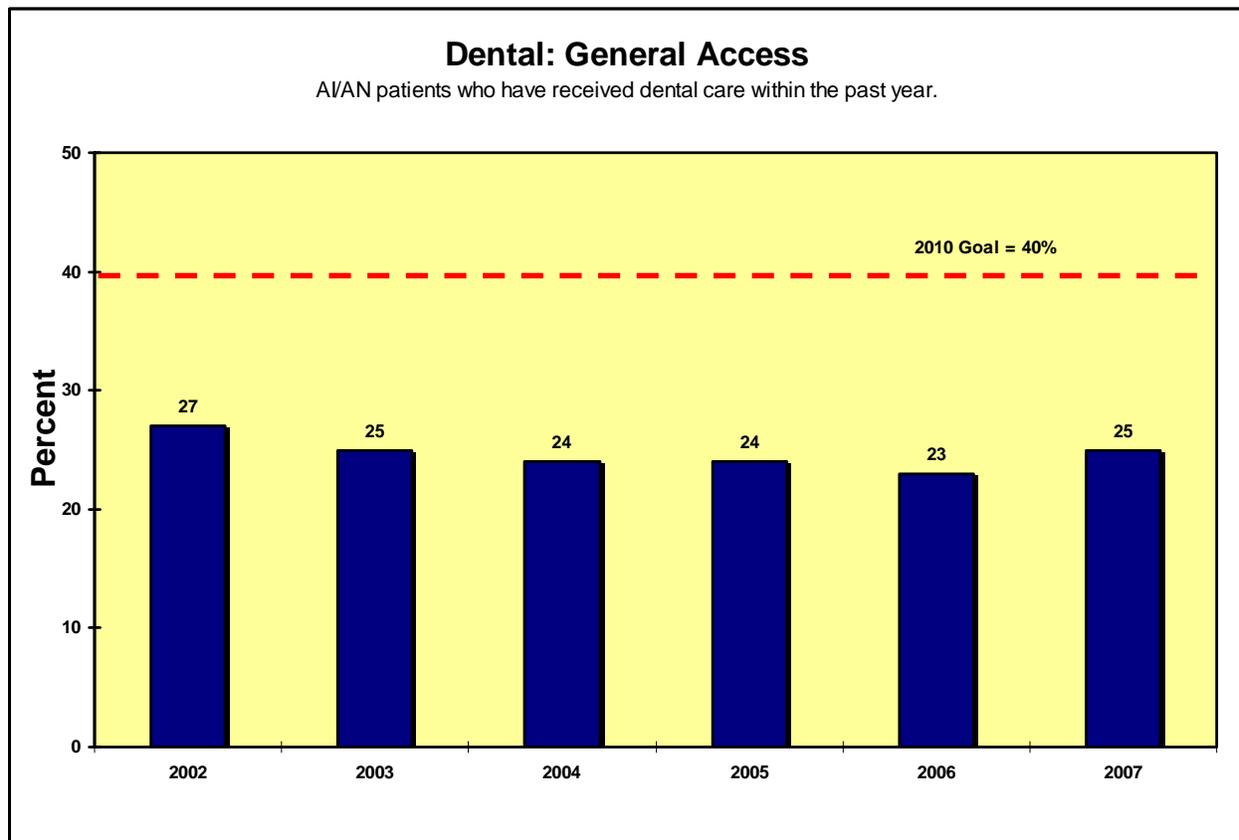
**Results and Analysis:** IHS met and exceeded the target for this measure. The number of patients who received one or more topical fluoride treatment increased by 12,495 (13%) from 95,439 in FY 2006 to 107,934 in FY 2007.

## Dental: General Access

**Measure:** Proportion of patients who obtain access to dental services.

**Importance:** *This measure is directed at improving the oral health status of the American Indian and Alaska Native populations. American Indians and Alaska Natives report greater unmet dental health needs compared to Non-Hispanic Whites. Untreated tooth decay can cause abscesses and infections, pain, dysfunction and weight loss. Dental problems result in the loss of almost 2.5 million workdays each year. Access to dental care improves oral health as well as the overall health of AI/AN people.*

**2007 Target:** Increase the proportion of patients that obtain access to dental services by 1% over the FY 2006 level of 23%.



**Data source:** CRS 7.0 electronic examination of 1,246,416 patient records.

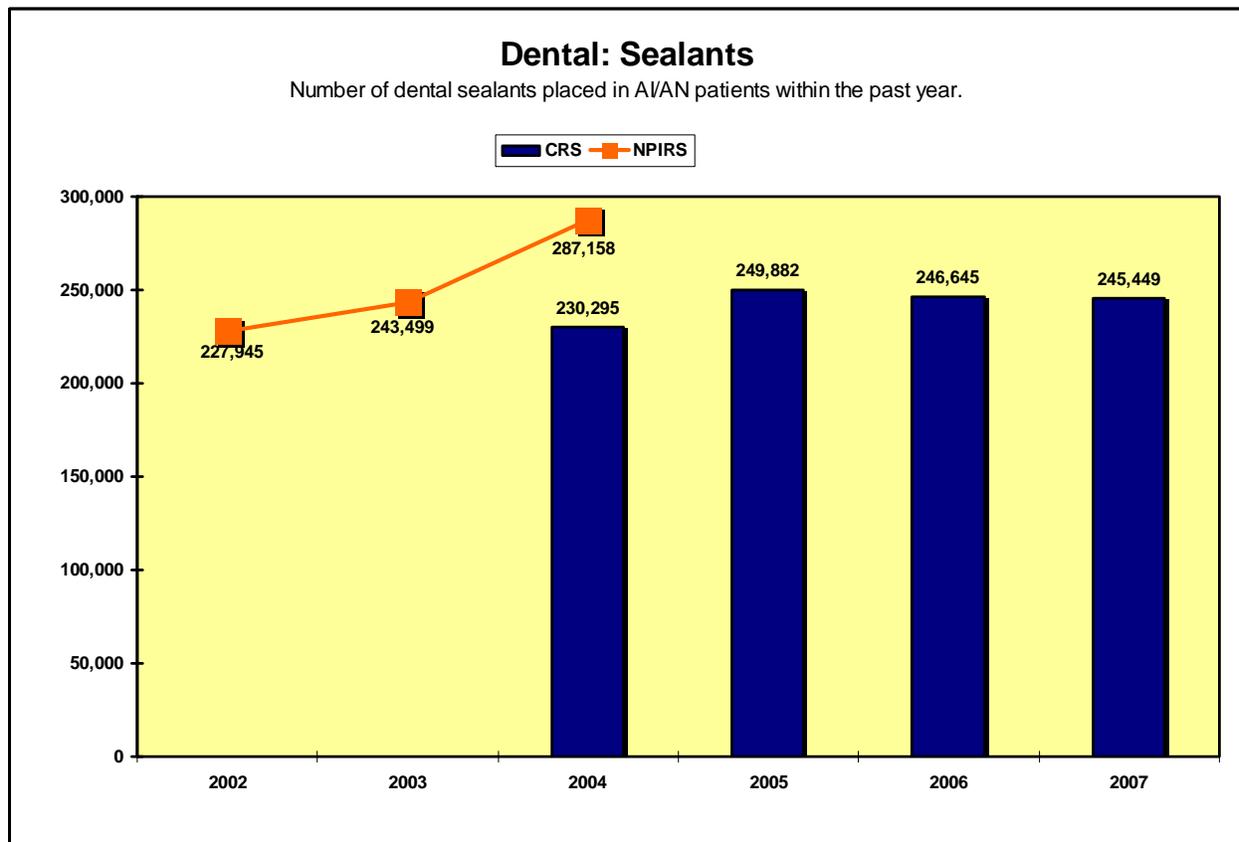
**Results and Analysis:** IHS met and exceeded the target for this measure. The proportion of patients that obtained access to dental services increased by 2% from 23% in FY 2006 to 25% in FY 2007. Although the target was exceeded, the proportion of patients receiving dental care remains low, primarily because of a high vacancy rate in the dental program.

# Dental: Sealants

**Measure:** Number of sealants placed per year in American Indian and Alaska Native patients.

**Importance:** *Surveys of American Indian and Alaska Native children have consistently identified them as having significantly higher dental decay rates than the general U.S. population. Dental sealants, a recognized standard in preventive dental care, are an effective measure for reducing dental decay rates and can be effectively applied by dental auxiliaries at relatively low cost. By reducing the incidence of dental decay, sealants improve oral health and represent a cost-effective preventive dental treatment.*

**2007 Target:** Maintain the number of sealants placed in American Indian and Alaska Native patients at the 2006 level of 246,645 sealants.



**Data source:** CRS 7.0 electronic examination of 1,246,416 patient records.

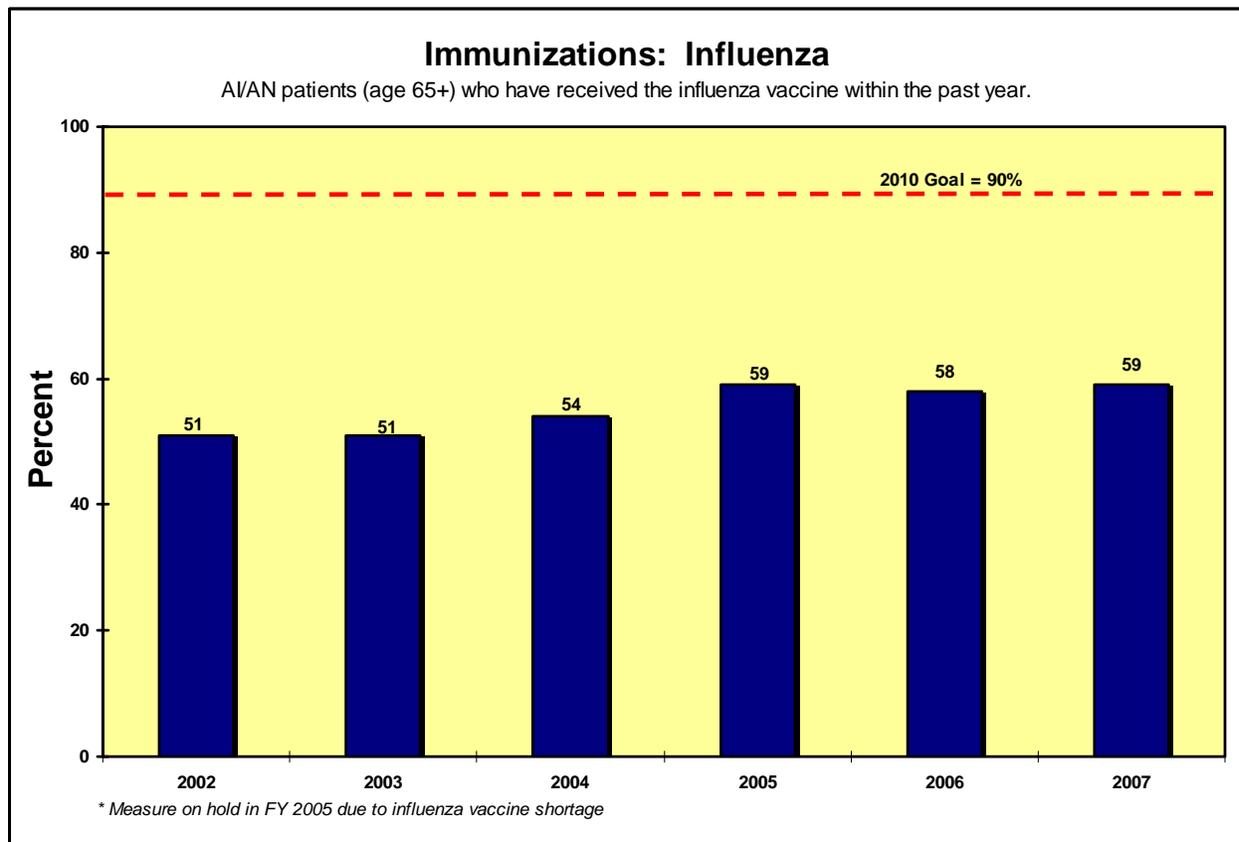
**Results and Analysis:** IHS did not meet the target for this measure. The number of sealants placed in AI/AN patients dropped by 1,196 (<1%) from 246,645 in FY 2006 to 245,449 in FY 2007. Part of the decline is paradoxically due to the success of the program; some sites have reported that they are “sealed out,” with all eligible patients having received sealants.

# Immunizations: Influenza

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

**Importance:** *Influenza is a highly contagious respiratory disease that can cause potentially life-threatening secondary infections. Elders who get influenza are also at increased risk of hospitalization and death from heart disease and stroke, and vaccination reduces that risk. In one observational study comparing vaccinated to non-vaccinated persons aged 65 and older in a managed care setting over two influenza seasons, researchers found a 19% and 16-23% reduction in hospitalization for cardiovascular and cerebrovascular events, respectively. In addition they found a 29-32% reduction in hospitalization for influenza or pneumonia and a 48-50% reduction in risk of death from all causes.*

**2007 Target:** Increase the rate for influenza vaccination by 1% over the FY 2006 level of 58%.



**Data source:** CRS 7.0 electronic examination of 57,084 patient records.

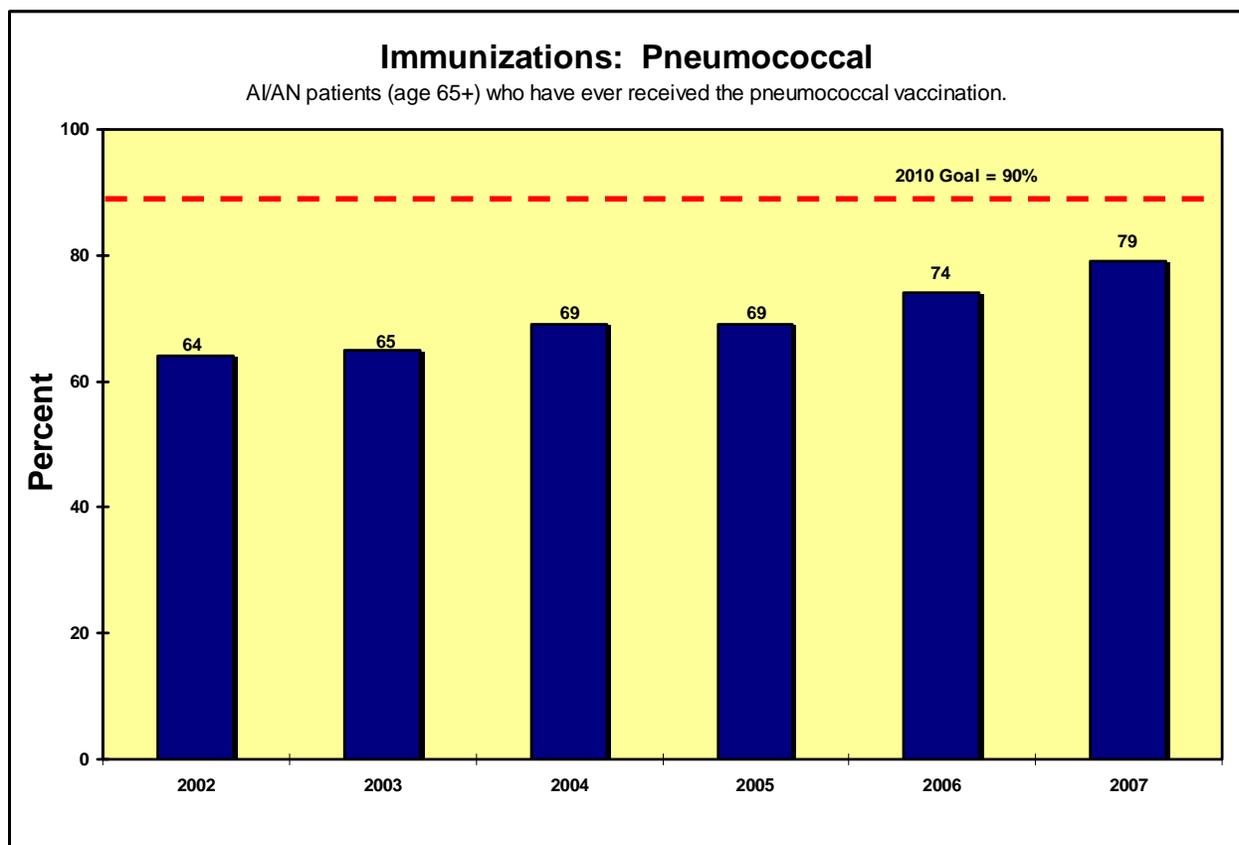
**Results and Analysis:** IHS met the target for this measure. The proportion of eligible patients receiving an influenza vaccination increased by 1% from 58% in FY 2006 to 59% in FY 2007. By increasing the rate of influenza immunization among adults over age 65, the agency has helped protect more elders from complications associated with the flu.

# Immunizations: Pneumococcal

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

**Importance:** *Pneumococcal vaccination can reduce morbidity and mortality due to pneumococcal disease among older adults. Elder health is an increasingly important issue as more and more of the population survives beyond the age of 65. Pneumococcal disease includes pneumonia, bacteremia, and meningitis. Pneumococcal disease has the highest death toll from a vaccine-preventable bacterial disease; patients over the age of 65 account for more than 51% of the deaths. In 1998, over 3,400 patients over the age of 65 died from pneumonia in the United States. Pneumococcal vaccination is a low-cost medical intervention that has been shown to prevent serious health complications among the elderly.*

**2007 Target:** Increase the rate for pneumococcal vaccination by 2% over the FY 2006 level of 74% to 76%.



**Data source:** CRS 7.0 electronic examination of 57,084 patient records.

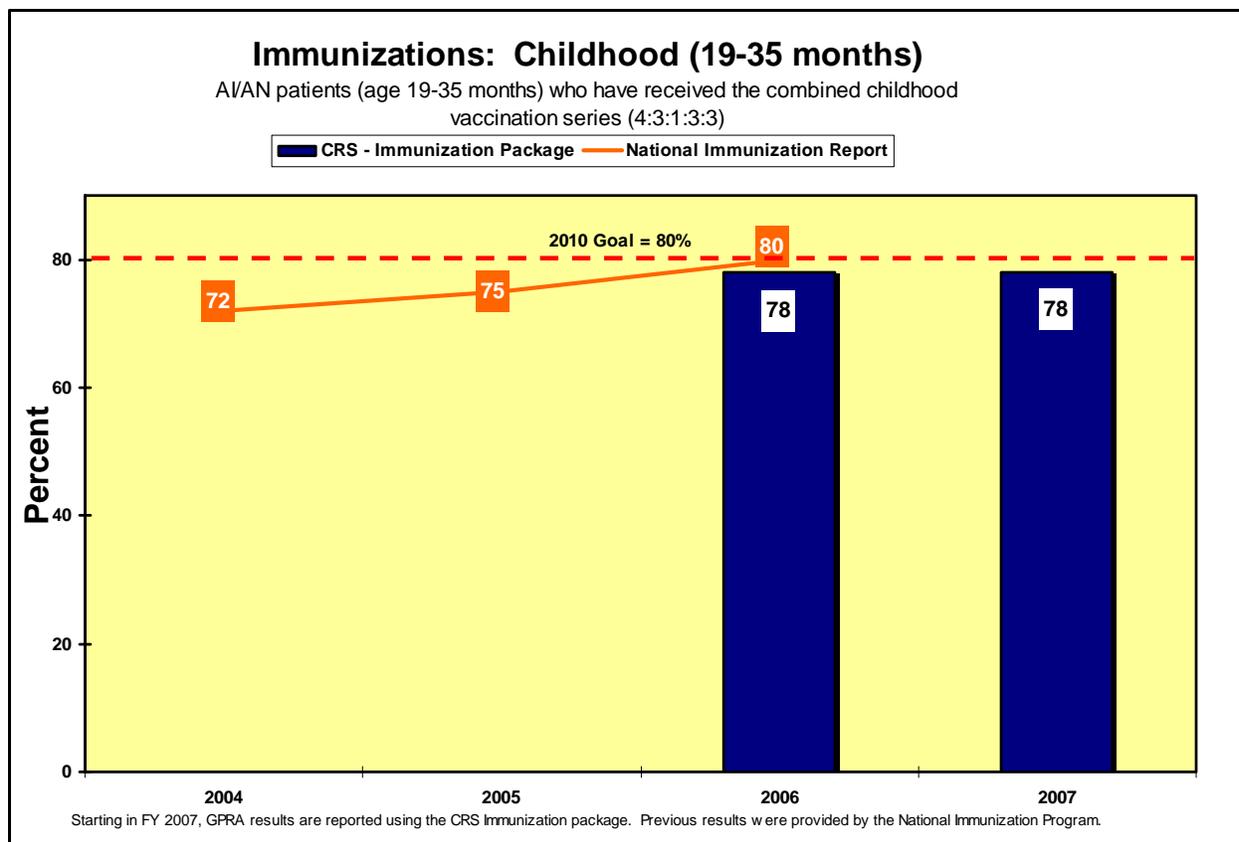
**Results and Analysis:** IHS met and exceeded the target for this measure, increasing the proportion of patients aged 65 and over that ever received pneumococcal vaccination by 5% from 74% in FY 2006 to 79% in FY 2007. This measure was included in the “One HHS” 10 Department-wide Management Objectives. IHS exceeded the goal of a 10% relative increase by FY 2007 by three percentage points.

# Immunizations: Childhood (19-35 months)

**Measure:** Combined (4:3:1:3:3) immunization rates for AI/AN patients aged 19-35 months.

**Importance:** Routine immunizations represent a cost-effective public health measure that significantly improves the health of children. The Healthy People 2010 goal is 90% coverage for all routine immunizations for children aged 19-35 months and 80% coverage for the combined (4:3:1:3:3) series of vaccinations. The combined series includes coverage with 4 doses of DTaP, 3 doses of IPV, 1 dose of MMR, 3 doses of Hep B and 3 doses of Hib.

**2007 Target:** Maintain rates for the combined series of recommended immunizations for American Indian and Alaska Native children aged 19-35 months at the FY 2006 level of 78%.



**Data source:** CRS 7.0 electronic examination of 24,229 patient records in the RPMS Immunization Package. Prior year results were based on data provided by the National Immunization Program based on patient care records and public health nursing records of children who receive immunizations at an IHS or tribal facility.

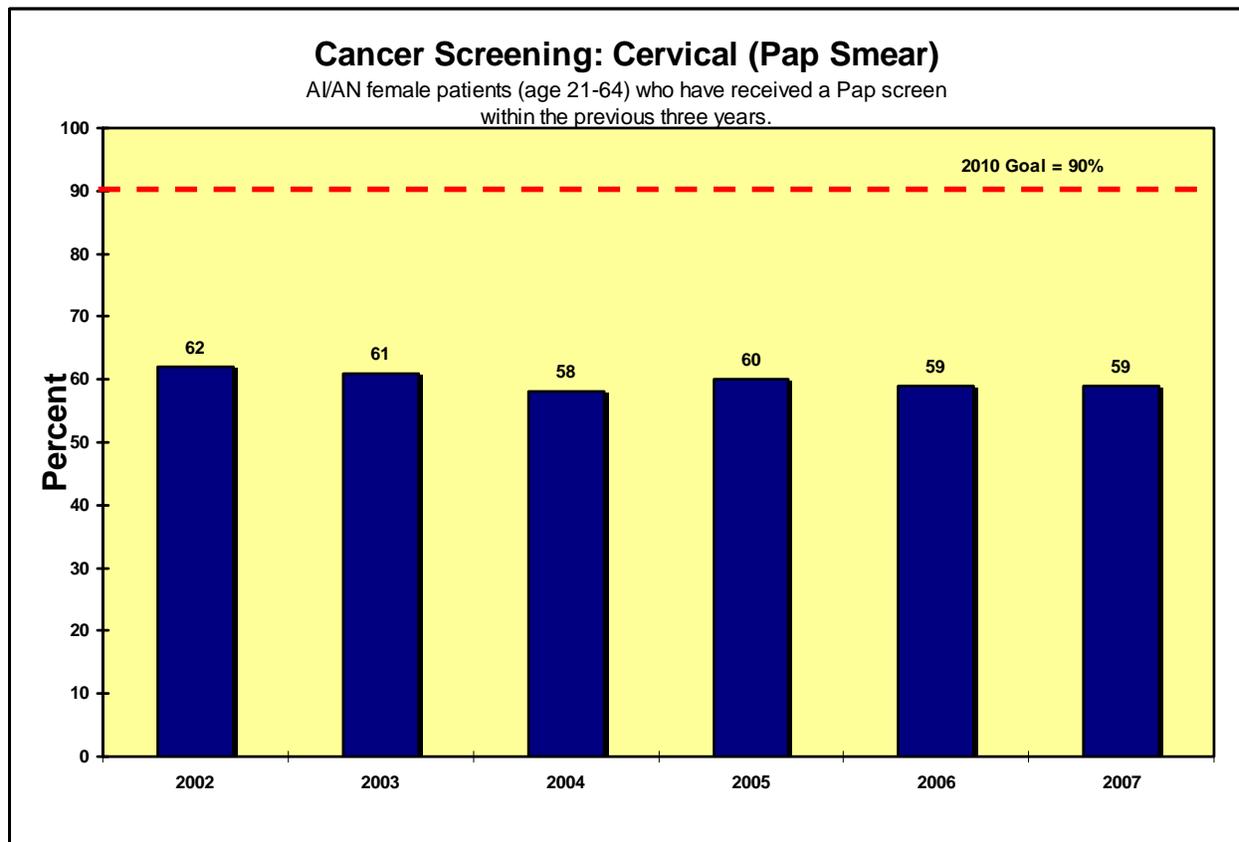
**Results and Analysis:** IHS met the target for this measure, maintaining the percentage of children ages 19-35 months receiving recommended vaccines at 78% in FY 2007. IHS is within reach of both the Healthy People and Agency 2010 goals of an 80% immunization rate for the combined series of childhood immunizations.

# Cancer Screening: Cervical (Pap Smear)

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

**Importance:** *More American Indian women report having never had a Pap screen than any other racial or ethnic group. Regular screening with a pap smear lowers the risk of developing invasive cervical cancer by detecting pre-cancerous cervical lesions that can be treated. If cervical cancer is detected early, the likelihood of survival is almost 100 percent with appropriate treatment and follow-up. Cervical cancer was once the leading cause of cancer death among women, but it has dropped to thirteenth (among US All Races), thanks to the use of Pap screens.*

**2007 Target:** Increase the proportion of eligible women aged 21-64 who have had a Pap screen within the previous three years by 1% over the FY 2006 level of 59% to 60%.



**Data source:** CRS 7.0 electronic examination of 250,593 patient records.

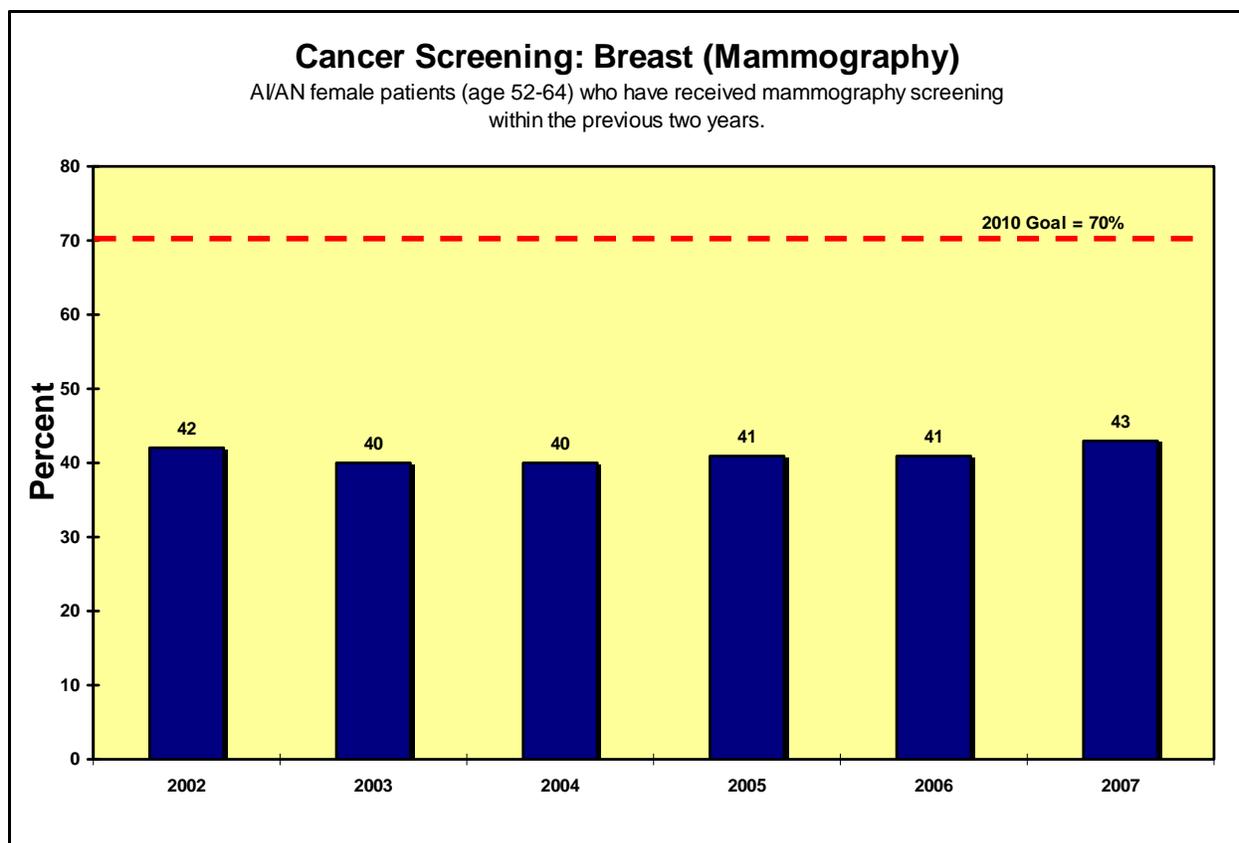
**Results and Analysis:** IHS did not meet the target for this measure. The proportion of eligible female patients (aged 21-64) with a Pap screen within the previous three years was maintained at 59% in FY 2007. These results illustrate the difficulty of raising the Pap screening rate over time without increased resources; since 2002, there has been no significant change in the percentage of patients meeting this measure.

# Cancer Screening: Breast (Mammography)

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

**Importance:** *Biennial screening of women between the ages of 50 and 69 has been shown to be a cost effective way to decrease the breast cancer mortality rate. Breast cancer is the second leading cause of cancer death among U.S. women (lung cancer is first). Although there has been overall improvement in breast cancer mortality rates since 1990, AI/AN women have not shared these gains. Between 1992 and 2002, breast cancer mortality rates declined for all racial and ethnic groups except American Indian/Alaska Native women, who experienced no decline in mortality rates. Regular mammography screening can reduce breast cancer mortality by 20-25%. AI/AN women diagnosed with breast cancer have lower 5-year survival rates in comparison to whites, mainly because their cancers are less likely to be found in earlier stages. It is because of this disparity that breast cancer screening remains one of the Agency's highest priorities.*

**2007 Target:** Maintain the proportion of female patients aged 52-64 who have had mammography screening within the previous two years at the FY 2006 level of 41%.



**Data source:** CRS 7.0 electronic examination of 48,668 patient records.

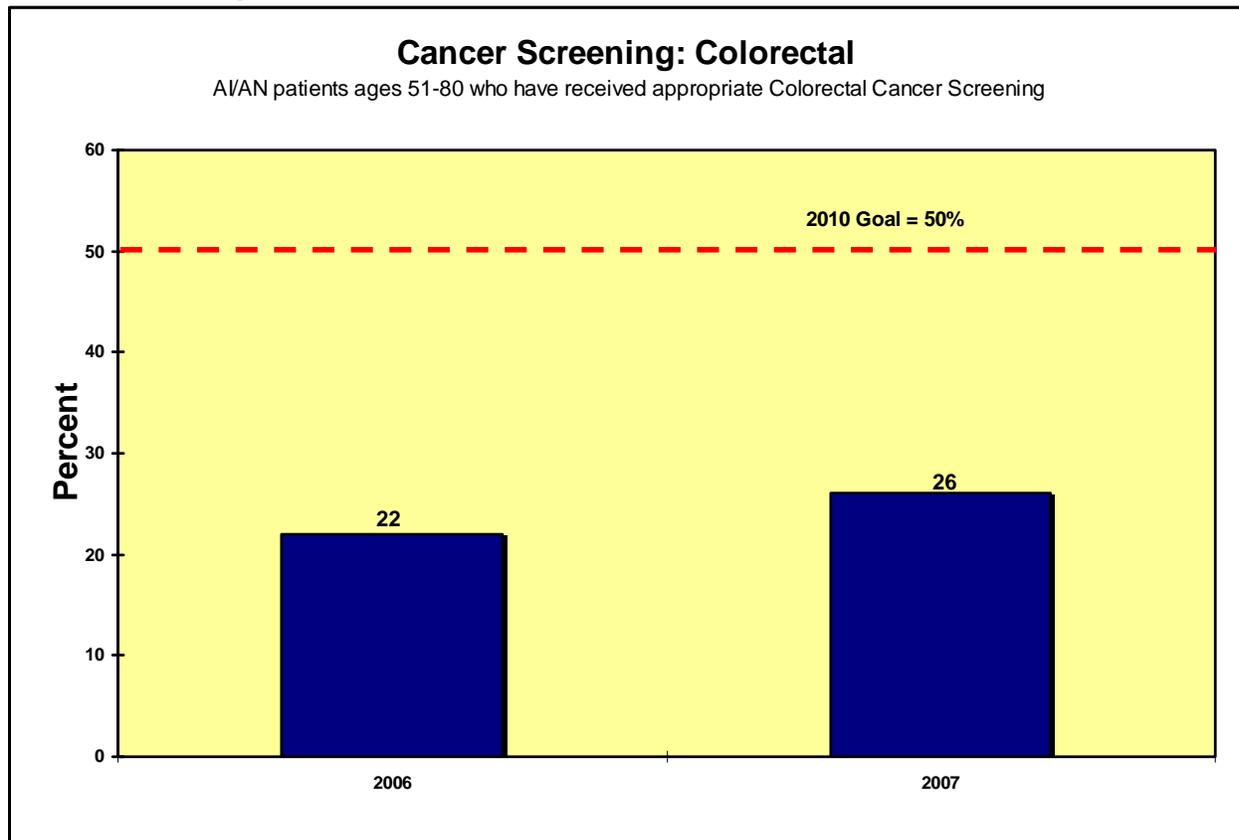
**Results and Analysis:** IHS met and exceeded the target for this measure, increasing the proportion of eligible patients (aged 52-64) who have had mammography screening from 41% in FY 2006 to 43% in FY 2007.

# Cancer Screening: Colorectal

**Measure:** Proportion of eligible patients who have had appropriate colorectal cancer screening.

**Importance:** *Colorectal cancer incidence and mortality rates among the Alaska Native population are well above the national average. Studies have found rates of 69.3 to 79.7 per 100,000 among Alaska Native men, and 67.4 to 71.4 per 100,000 among Alaska Native women. Alaska Native women in particular have colorectal cancer rates of more than twice the US average. Although colorectal cancer rates among American Indians are low compared to the overall US average, there is strong evidence that the number of colorectal cancer cases has been rising in recent years. American Indians and Alaska Natives are less likely to be diagnosed with colorectal cancer at the earliest, localized stage where treatment is likely to be most effective than whites and Asian Americans. Screening and preventative measures such as removal of polyps have been well proven to reduce the rates and lethality of colorectal cancer.*

**2007 Target:** Maintain the proportion of eligible patients receiving appropriate colorectal cancer screening at the FY 2006 baseline rate of 22%.



**Data source:** CRS 7.0 electronic examination of 145,205 patient records

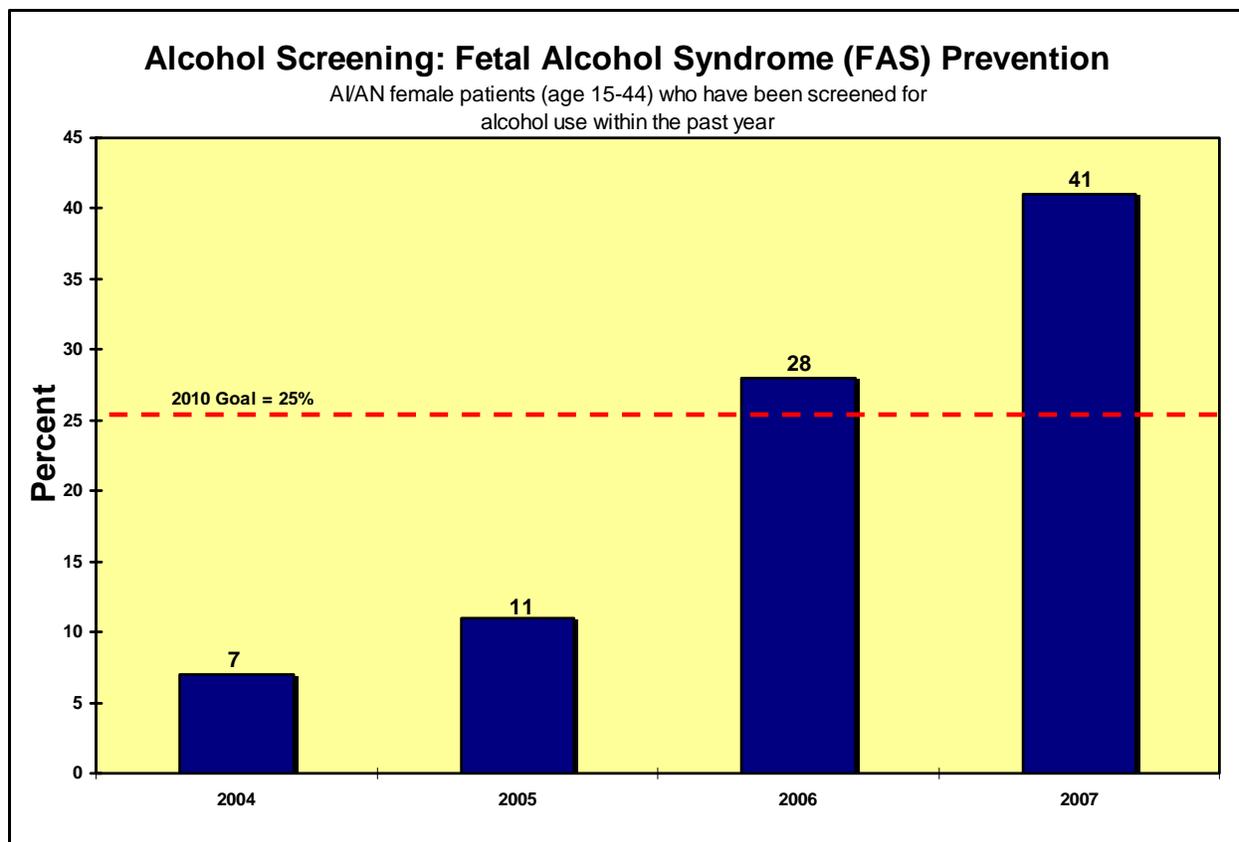
**Results and Analysis:** IHS met and exceeded the target for this measure, increasing the proportion of eligible patients (aged 51-80) who have had appropriate colorectal cancer screening by 4% over the FY 2006 baseline level of 22% to 26% in FY 2007.

# Alcohol Screening: Fetal Alcohol Syndrome (FAS) Prevention

**Measure:** Alcohol use screening (to prevent FAS) in appropriate female patients

**Importance:** *Heavy drinking during pregnancy can cause significant birth defects, including Fetal Alcohol Syndrome (FAS). FAS is the leading known, and preventable, cause of mental retardation. Rates of FAS are higher among American Indians and Alaska Natives than the general population. FAS cases have been reported at a rate of 9.8 per 1000 live births among southwestern Indians, 5.6 per 1000 in Alaska, and 2.5 per 1000 in Arizona, well above that of any other race or ethnicity. Studies have found alcohol consumption rates among AI/AN women to be higher than national averages.*

**2007 Target:** Maintain the screening rate for alcohol use in female patients ages 15-44 at the FY 2006 level of 28%.



**Data source:** CRS 7.0 electronic examination of 231,448 records

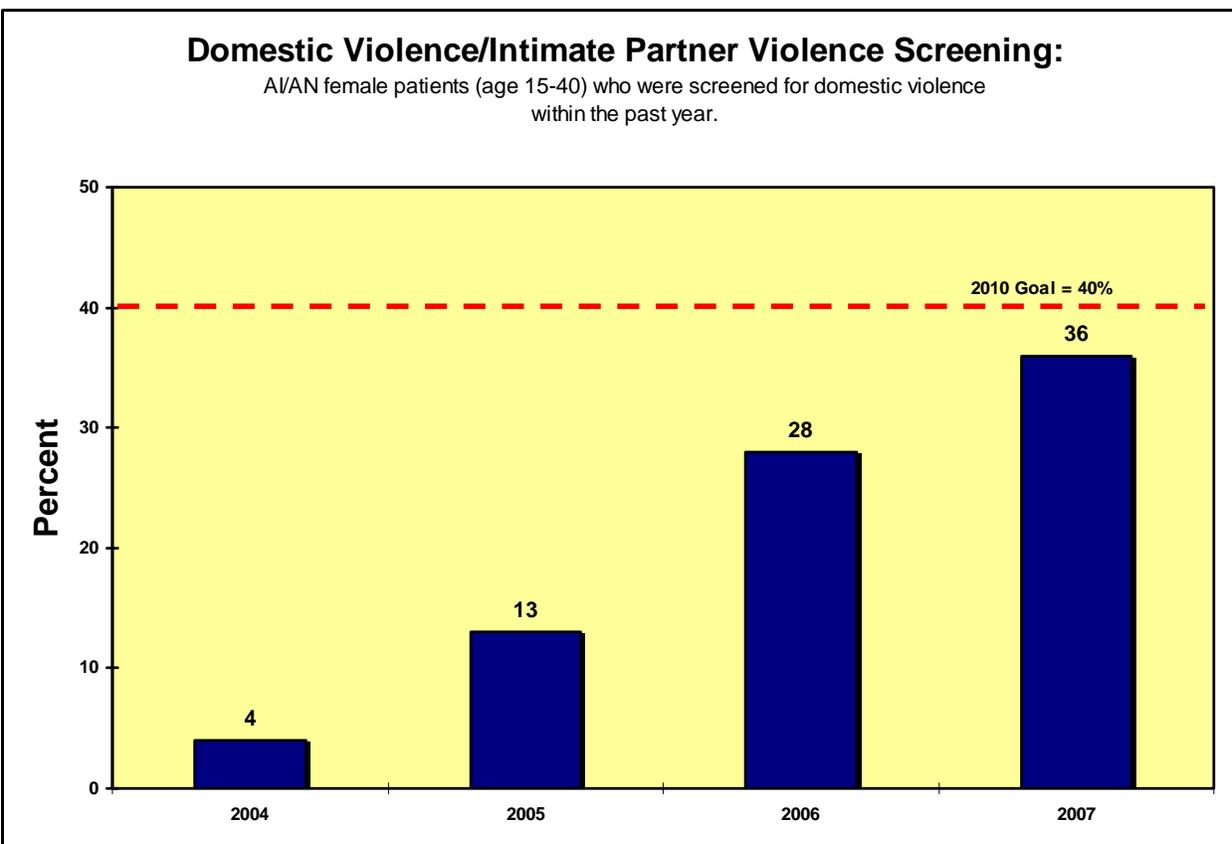
**Results and Analysis:** IHS met and exceeded the target for this measure, increasing the proportion of eligible patients screened for alcohol use by 13%, from 28% in FY 2006 to 41% in FY 2007. This measure was included in the “One HHS” 10 Department-wide Management Objectives. IHS met and exceeded the goal of a 10% relative increase by FY 2007. IHS has also met and exceeded the 2010 goal (25%) for the measure.

# Domestic Violence/Intimate Partner Violence Screening

**Measure:** Proportion of women who are screened for domestic violence at health care facilities.

**Importance:** *This measure is designed to help ascertain, evaluate, and reduce the prevalence of family violence, abuse, and neglect in American Indian and Alaska Native communities. Thirty percent of women in the United States experience domestic violence at some time in their lives. AI/AN women experience domestic violence at rates similar to or higher than the national average. A survey of Navajo women seeking routine care at an IHS facility revealed that 14% had experienced physical abuse in the past year, and 42% had experienced physical abuse from a male partner at least once in their lives. The health consequences of intimate partner violence are numerous.*

**2007 Target:** Maintain the proportion of women aged 15-40 screened for domestic and intimate partner violence at the FY 2006 level of 28%.



**Data source:** CRS 7.0 electronic examination of 204,458 patient records.

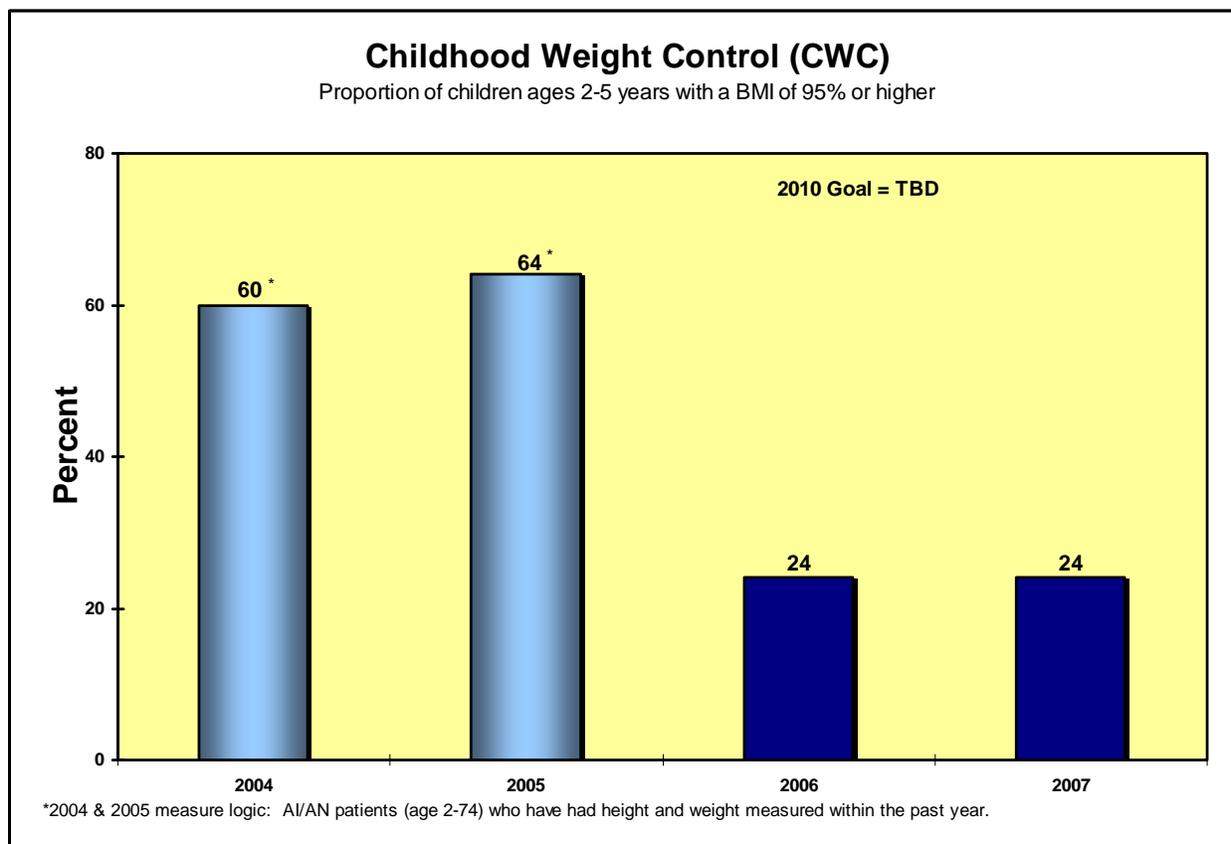
**Results and Analysis:** IHS met and exceeded the target for this measure, increasing the proportion of eligible patients who have had Intimate Partner/Domestic Violence screening by 8% overall, from 28% in FY 2006 to 36% in FY 2007. This measure was included in the “One HHS” 10 Department-wide Management Objectives. IHS met and exceeded the goal of a 10% relative increase by FY 2007.

# Childhood Weight Control (CWC)

**Measure:** Proportion of children ages 2-5 years with a BMI of 95% or higher.

**Importance:** Rates of overweight among American Indian and Alaska Native children exceed the national averages. Overweight among children is defined as a Body Mass Index (BMI) at the 95<sup>th</sup> percentile or above. Children who are overweight tend to show related signs of morbidity, including elevated blood pressure, cholesterol, triglyceride, and insulin levels. Overweight children also are at risk for psychosocial difficulties arising from being obese, including shame, self-blame, and low self-esteem, all of which may impair academic and social functioning and carry into adulthood. One major effect of rising childhood overweight rates is the growing prevalence of type 2 diabetes among children.

**2007 Target:** Maintain the proportion of children ages 2-5 years with a BMI at the 95<sup>th</sup> percentile or higher at the FY 2006 level of 24%.



**Data source:** CRS 7.0 electronic examination of 37,708 patient records

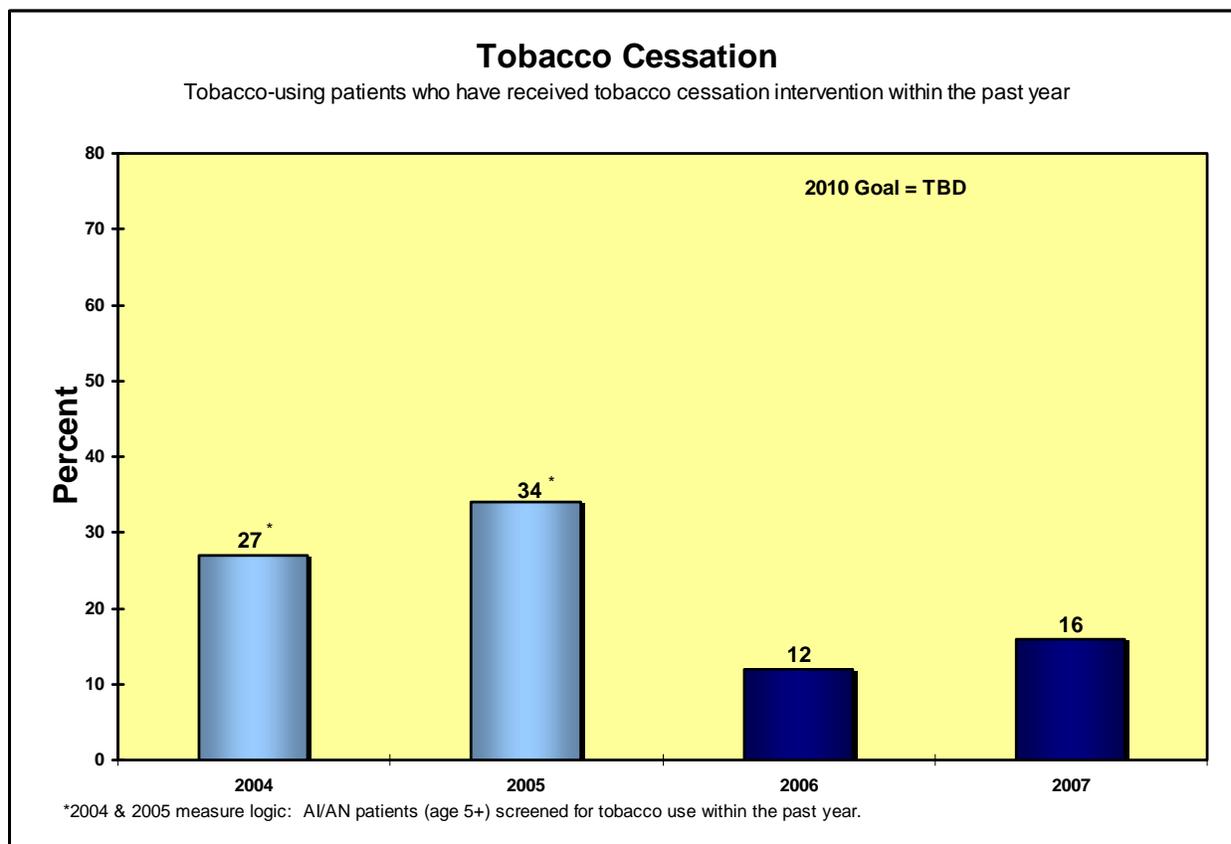
**Results and Analysis:** IHS met the target for this measure by maintaining the proportion of children ages 2-5 with a BMI of 95% or higher at 24%. This exceeds rates found in the general population, and represents a significant health risk factor for AI/AN children. IHS will move Childhood Weight Control to a long-term measure as of FY 2009.

# Tobacco Cessation

**Measure:** Proportion of tobacco-using patients that receive tobacco cessation intervention.

**Importance:** *The use of tobacco represents the second-highest cause of preventable deaths for American Indian and Alaska Native people. Smoking rates in many communities are almost twice the national average. Tobacco users who quit enjoy longer and healthier lives, on average, than those who do not. Even a long-time smoker can significantly reduce their risk of heart disease and other complications by quitting. Advice from a health care provider and group and individual cessation counseling can help smokers quit. Smoking cessation treatments have been found to be safe and effective. Moreover, tobacco cessation programs are more cost-effective than other common prevention interventions.*

**2007 Target:** Maintain the proportion of tobacco-using patients receiving tobacco cessation intervention at the FY 2006 rate of 12%.



**Data source:** CRS 7.0 electronic examination of 212,238 patient records

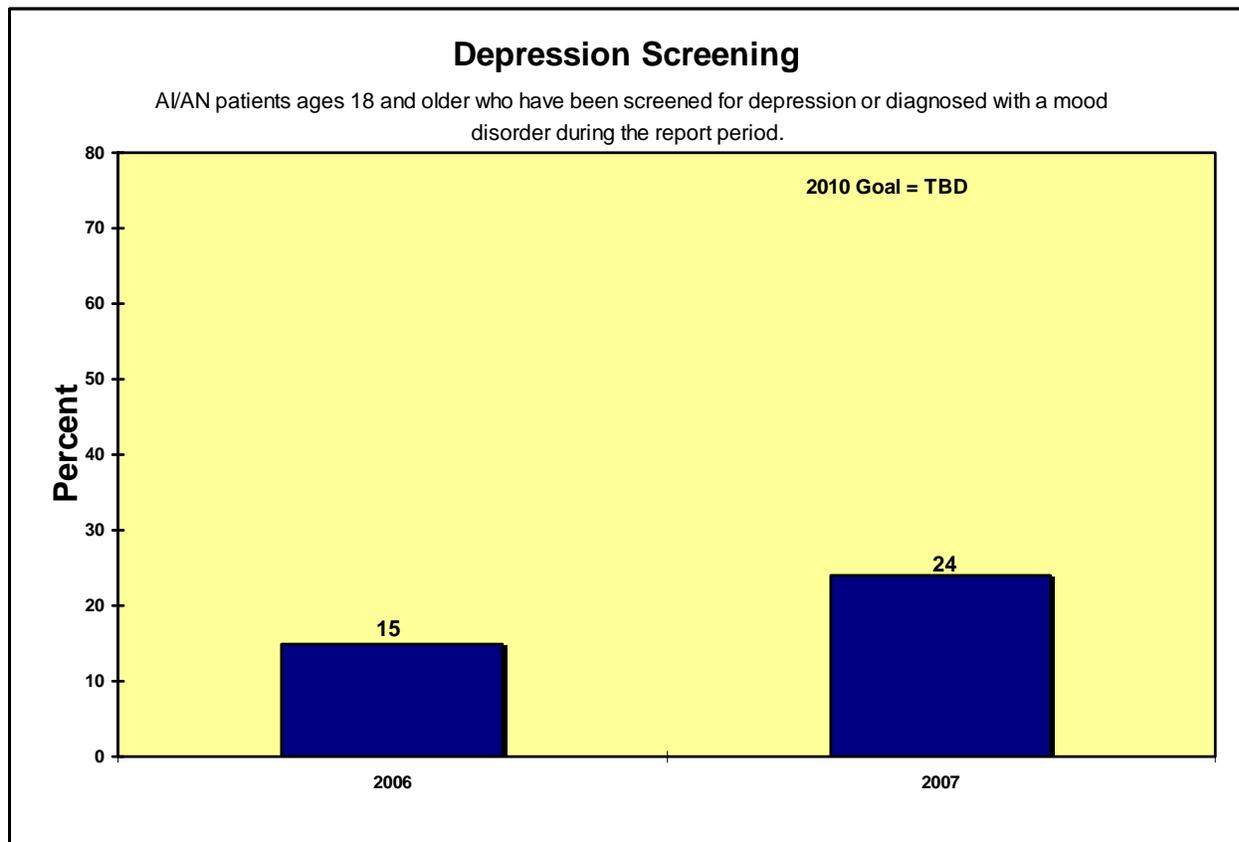
**Results and Analysis:** IHS met and exceeded the target for this measure, by increasing the proportion of tobacco-using patients who have received cessation intervention by 4% overall, from 12% in FY 2006 to 16% in FY 2007. Increasing the number of patients receiving tobacco cessation intervention will reduce the number of patients who die or develop chronic conditions due to smoking.

# Depression Screening

**Measure:** Proportion of patients ages 18 and older who are screened for depression.

**Importance:** *About 1 in 20 adults experience major depression in a given year. Depression and anxiety disorders may affect heart rhythms, increase blood pressure, and alter blood clotting. Depression can also lead to elevated insulin and cholesterol levels. Depression or anxiety may result in chronically elevated levels of stress hormones such as cortisol and adrenaline. Depression also frequently increases the risk of suicidal behavior. The specific risk for suicide associated with depressive disorders is elevated 12- to 20-fold compared to the general population. Screening for depression is the first step toward identifying patients who need intervention, treatment, and follow up.*

**2007 Target:** Maintain the proportion of patients ages 18 and older that receive depression screening at the FY 2006 level of 15%.



**Data source:** CRS 7.0 electronic examination of 564,756 patient records

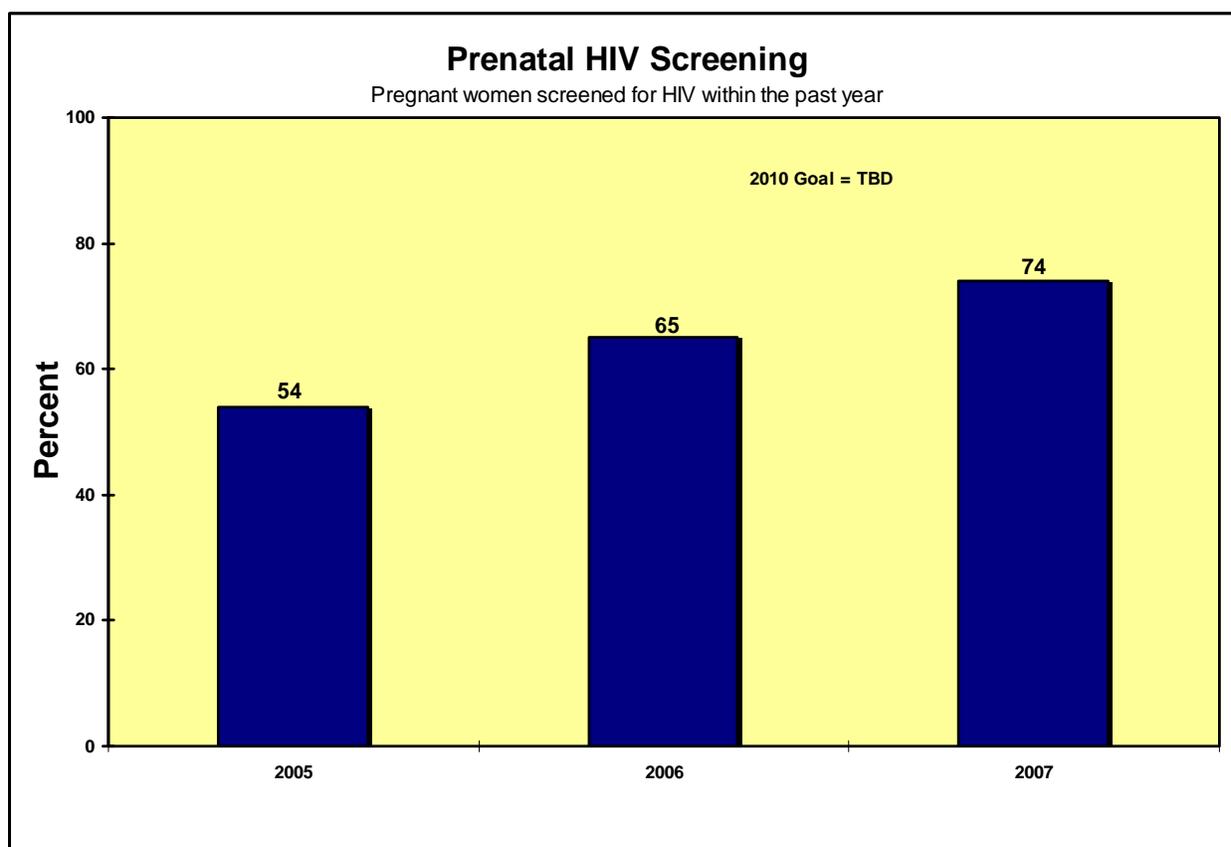
**Results and Analysis:** IHS met and exceeded the target for this measure by increasing the proportion of patients ages 18 and older that were screened for depression by 9% overall, from 15% in FY 2006 to 24% in FY 2007.

# Prenatal HIV Screening

**Measure:** Proportion of pregnant women screened for HIV.

**Importance:** *The HIV/AIDS epidemic represents a growing threat to American women of childbearing age. From 1999 through 2003, the estimated number of AIDS cases increased 15% among women and 1% among men. HIV infections in newborn children are one potential consequence of higher HIV infection rates among women of childbearing age. Studies have shown transmission rates of less than 2% among HIV infected mothers who started antiretroviral treatment during pregnancy; those who did not begin treatment until labor or after birth had transmission rates of 12-13%, and those who received no treatment had rates of 25%. Routine prenatal HIV testing of all pregnant women is the best way to avoid transmission of HIV from mother to infant.*

**2007 Target:** Maintain the proportion of pregnant women screened for HIV at the FY 2006 level of 65%.



**Data source:** CRS 7.0 electronic examination of 25,607 patient records.

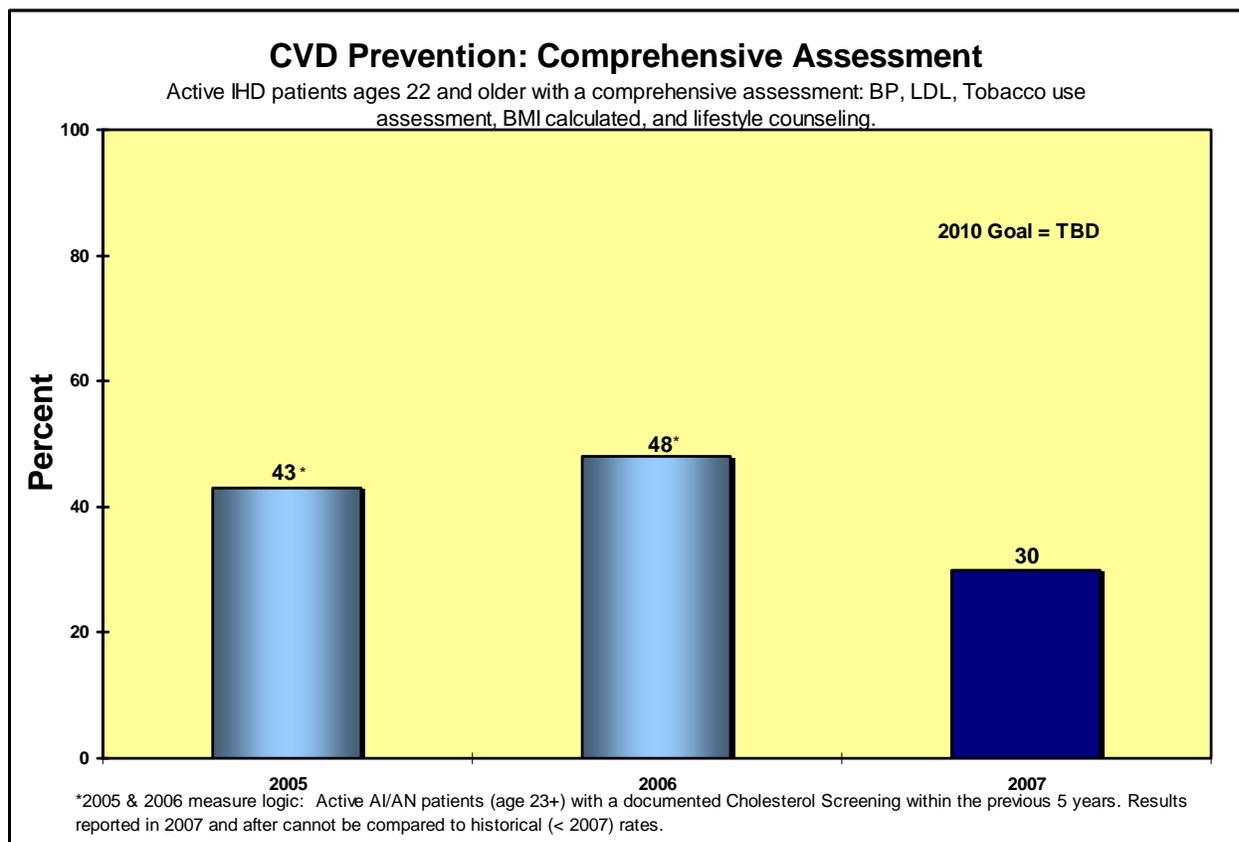
**Results and Analysis:** IHS met and exceeded the target for this measure. The rate of prenatal HIV screening increased by 9% from 65% in FY 2006 to 74% in FY 2007. Since it introduced this measure in FY 2005, the Agency has increased prenatal screening rates by 20%.

# CVD Prevention: Comprehensive Assessment

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

**Importance:** *Death rates from cardiovascular disease are higher among AI/AN people than other groups. In the late 1990s, heart disease death rates were 20% higher among AI/AN people than the total US population, and stroke death rates were 14% higher. Cardiovascular disease represents the leading cause of death for American Indian and Alaska Native people above 45 years of age. Unlike other racial and ethnic groups, American Indians appear to have an increasing incidence of cardiovascular disease, likely due to the high prevalence of diabetes.*

**2007 Target:** Establish a baseline of the proportion of active patients with Ischemic Heart Disease (IHD) aged 22 and older that receive a comprehensive CVD assessment.



**Data source:** CRS 7.0 electronic examination of 31,649 patient records

**Results and Analysis:** IHS met the target for this measure. A baseline of 30% was established for the proportion of active IHD patients aged 22 and older that received a comprehensive CVD assessment. This is the first GPRA measure to assess comprehensive care of patients with a chronic condition.

# Appendix A

# Summary of Key Findings

## 2007 CRS Clinical Measures

Measure	2007 Results	2006 Results	2007 Target	Measure Status
<b>Diabetes: Poor Glycemic Control</b>	16%	16%	15%	<b>Not Met</b>
<b>Diabetes: Ideal Glycemic Control</b>	31%	31%	32%	<b>Not Met</b>
<b>Diabetes: Blood Pressure Control</b>	39%	37%	37%	<b>Met</b>
<b>Diabetes: Dyslipidemia Assessment</b>	61%	60%	60%	<b>Met</b>
<b>Diabetes: Nephropathy Assessment</b> <i>*New baseline due to standards of care changes</i>	40%*	55%	Baseline	<b>Met</b>
<b>Diabetes: Retinopathy</b> <i>(All Sites/Pilot Sites)</i>	49%	49%/52%	49%	<b>Met</b>
<b>Dental: Topical Fluorides</b>	107,934	95,439	95,439	<b>Met</b>
<b>Dental: General Access</b>	25%	23%	24%	<b>Met</b>
<b>Dental: Sealants</b>	245,449	246,645	246,645	<b>Not Met</b>
<b>Immunizations: Influenza</b>	59%	58%	59%	<b>Met</b>
<b>Immunizations: Pneumococcal</b>	79%	74%	76%	<b>Met</b>
<b>Immunizations: Childhood (19-35mo)</b> <i>*National Immunization Report</i>	78%	*80/78%	78%	<b>Met</b>
<b>Cancer Screening: Cervical (Pap Smear)</b>	59%	59%	60%	<b>Not Met</b>
<b>Cancer Screening: Breast (Mammography)</b>	43%	41%	41%	<b>Met</b>
<b>Cancer Screening: Colorectal</b>	26%	22%	22%	<b>Met</b>
<b>Alcohol Screening (FAS Prevention)</b>	41%	28%	28%	<b>Met</b>
<b>Domestic (Intimate Partner) Violence Screening</b>	36%	28%	28%	<b>Met</b>
<b>Childhood Weight Control</b>	24%	24%	24%	<b>Met</b>
<b>Tobacco Cessation</b>	16%	12%	12%	<b>Met</b>
<b>Depression Screening</b>	24%	15%	15%	<b>Met</b>
<b>Prenatal HIV Screening</b>	74%	65%	65%	<b>Met</b>
<b>CVD Comprehensive Assessment</b> <i>*2006 measure was cholesterol screening</i>	30%	48%*	Baseline	<b>Met</b>

# Summary of Key Findings

## 2007 Non-CRS Measures

Measure	2007 Result	2006 Result	2007 Target	Measure Status
<b>RTC Accreditation</b>	91%	100%	100%	<b>Not Met</b>
<b>Data Quality Improvement</b> <i>Number of clinical measures that can be reported by CRS software.</i>	ALL	+ 1	ALL	<b>Met</b>
<b>Accreditation</b>	100%	100%	100%	<b>Met</b>
<b>Patient Safety</b> <sup>1</sup> <i>Number of Areas with a medication error reporting system.</i>	64	3 Areas <sup>1</sup>	Deploy to 10 sites	<b>Met</b>
<b>Scholarships</b> <i>Proportion of Health Professional Scholarship recipients placed in Indian health settings within 90 days of graduation.</i>	47%	37%	42%	<b>Met</b>
<b>Public Health Nursing</b> <sup>2</sup> <i>Time spent and nature of public health activities other than one-on-one patient care, with an emphasis on activities that serve groups or the entire community.</i>	Baseline Set <sup>2</sup>	Developed	Baseline	<b>Met</b>
<b>Injury Intervention</b> <i>Number of community-based injury prevention projects per Area.</i>	3 projects completed/ entered in 12 areas	System Implemented	3 projects completed/ entered in 11 areas	<b>Met</b>
<b>Unintentional Injury Rates</b>	Results available 12/2011	Results available 12/2010	94.8/100,000	<b>Pending</b>
<b>Suicide Surveillance</b> <i>Increase the incidence of Suicidal behavior reporting.</i>	1674	1603	1603	<b>Met</b>
<b>Environmental Surveillance</b>	32 programs	20 programs	29 programs	<b>Met</b>
<b>Sanitation Improvement</b> •Number of homes Percent of existing homes at Deficiency Level 4 or above	21,819 •45%	24,090 •35%	23,000 •35%	<b>Not Met</b>
<b>Health Care Facility Construction</b> <i>See specific Facility Construction report for status</i>	2 projects completed	3 projects completed	Complete 2 projects	<b>Met</b>

# Indian Health Service Mortality Disparities Table

## American Indian and Alaska Natives (AI/AN) in the IHS Service Area 2002-2004, US All Races 2003

	Rate AI/AN 2002-2004	Rate U.S. All Races 2003	Ratio: AI/AN: U.S. All Races
<b>ALL CAUSES</b>	<b>1027.1</b>	<b>832.7</b>	<b>1.2</b>
ALCOHOL INDUCED <sup>1</sup>	43.6	6.7	6.5
BREAST CANCER	21.0	25.3	0.8
CEREBROVASCULAR DISEASE	50.9	53.5	1.0
CERVICAL CANCER	4.7	2.5	1.9
DIABETES	74.2	25.3	2.9
DISEASES OF THE HEART	231.1	232.3	1.0
HIV INFECTION <sup>2</sup>	3.1	4.7	0.7
HOMICIDE (assault)	12.2	6.0	2.0
INFANT DEATHS <sup>3</sup>	11.7	6.9	1.7
MALIGNANT NEOPLASMS (ALL)	180.7	190.1	1.0
MATERNAL DEATHS <sup>4</sup>	11.1	12.1	0.9
MOTOR VEHICLE CRASHES	51.2	15.3	3.3
PNEUMONIA & INFLUENZA	32.3	22.0	1.5
SUICIDE (Intentional self-harm)	17.9	10.8	1.7
TUBERCULOSIS	1.7	0.2	8.5
UNINTENTIONAL INJURIES	94.8	37.3	2.5

**Source:** Unpublished data: OPHS/Division of Program Statistics (2002-2004 AI/AN rates based on 2000 census with bridged – race categories).

1. Rate of alcohol-induced deaths is for the 1979-1981 three year period. The US all races rate is for 1980.

2. HIV was first classified in 1987. Rate of HIV is for the 1987-1989 three year period. The US all races rate is for 1988.

3. Per 1,000 live births.

4. Rate per 100,000 live births. Rate does not meet the standards of reliability due to small numbers. The break in comparability for maternal mortality has not been quantified by NCHS.

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