2.1.1 Treatment and Prevention Categories: Program Description, Context and Summary of Performance

Program Description and Context

Treatment and Prevention indicators have been combined in this section for several reasons including:

- the distinction between treatment and prevention is often blurred
- many health care programs provide both kinds of services
- approximately 90% of IHS resources are directed towards these activities
- monitoring for both is usually accomplished from the same data systems

In essence, prevention and treatment are our business and virtually all other activities are supportive to them. Combined they are the essence of IHS Strategic Objective 2: Provide Health Services and the means to accomplishing our Mission and Goal and IHS Strategic Objective 1: Improve Health Status. The indicators directly address the structure, process, and outcome of treatment and preventive services. While some of these measures such as the dental indicators 12 -15 and public health nursing indicator 22 can be closely linked to the funding request, most are less directly evident in their linkage to funding because they represent activities performed by staff from multiple disciplines who address multiple health problems. For a more detailed discussion of the limitations in funding linkages with indicators, see *Budget and Program Aggregation* on page 38 and Section A.4 on page 133 in the appendix of this document.

Ultimately, our performance in treatment and prevention activities will determine our level of success in improving the health of the AI/AN population. But setting one-year performance targets linked to funding is not a precise science. While we are on track to accomplish many of the treatment and prevention targets for FY 2001, several remain in question because of the growing difficulties in recruitment and retention of critical health care providers. Our ability to recruit additional health care providers and having the needed clinical space available to utilize them efficiently may not be realized in a single year. In some cases, investments in the supportive infrastructure are the highest priority for long-term effectiveness but will do contribute no measurable benefit in the short-run to increase access to services.

It is also important to keep in mind in reviewing performance indicators and performance results that the AI/AN population increases over two percent annually. Thus, service capacity must be increased over two percent just to remain at the same level of coverage each year for the indicators that set a target for the percent of the population covered.

For a more detailed discussion of the issues influencing performance accomplishment see the *FY 1999 Performance Summary* section beginning on page 24. In addition, a performance summary table precedes each section of indicators and the description of each individual indicator includes an assessment of estimated performance achievement for FY 2000. The budget category/programs that make up the Treatment and Prevention categories, along with their page reference in the budget are presented on the following page:

Treatment Aggregation

Hospitals and Clinics - supports inpatient and ambulatory care and support services such as nursing, pharmacy, laboratory, nutrition, medical records, etc (see page IHS-27 in FY 2002 budget document).

Dental Services - supports the provision of dental care through clinic based treatment and prevention services and community oral health promotion and disease prevention activities including water fluoridation and dental sealants (see page IHS-37 in FY 2002 budget document).

Mental Health - supports community oriented clinical and preventive mental health and social services programs (see page IHS-43 in FY 2002 budget document).

Alcohol and Substance Abuse - supports the efforts of tribes in the provision of holistic alcoholism and other drug dependency treatment, rehabilitation, and preventive services for individuals and families (see page IHS-51 in FY 2002 budget document).

Urban Indian Health - supports contracts and grants to 34 urban health programs funded under Title V of the Indian Health Care improvement Act (see page IHS-93 in FY 2002 budget document).

Indian Health Professions - supports self-determination and access to health care through efforts to enable AI/AN to enter health professions, and effective recruitment of health staff by providing scholarships, loan repayment, temporary employment, and health professions recruitment (see page IHS-99 in FY 2002 budget document).

Self-Governance- supports the Office of Tribal Self-Governance and Self-Governance Planning and Negotiating grants. (see page IHS-115 in FY 2002 budget document).

Contract Support - provides administrative costs for tribal managed programs in addition to what would have been provided under the direct provision of the program as authorized under Section 106(a) (2) of P.L. 93-638, the Indian Self-Determination Act, as amended (see page IHS-125 in FY 2002 budget document).

Prevention Aggregation

Public Health Nursing - supports the community-based Public Health Nursing program which provides treatment, counseling, health education, and referral activities carried out in such setting as homes, schools, jails, bars, and community centers in conjunction with a diversity of other health care providers (see page IHS-73 in FY 2002 budget document).

Health Education - supports activities directed towards promoting healthy lifestyles, community capacity building, and the appropriate use of health services through public health education targeted at school health, employee health promotion, community health, and patient education (see page IHS-77 in FY 2002 budget document).

Community Health Representative - supports the tribally administered program of training AI/AN community members in basic disease control and prevention. These activities include

serving as outreach workers with the knowledge and cultural sensitivity to effect change in community acceptance and utilization of health care resources and use community-based networks to enhance health promotion/disease prevention activities (see page IHS-81 in FY 2002 budget document).

Alaska Immunization Program - supports the Alaska immunizations program to address hepatitis and haemophilous influenzae through collaboration with the CDC (see page IHS-85 in FY 2002 budget document).

Environmental Health Support - supports the IHS injury prevention program that coordinates and provides grants for primary preventive community-based collaborative programs using epidemiologically defined problem identification and evaluation methods (see page IHF-39 in FY 2002 budget document).

2.1.2 Treatment and Prevention: Performance Indicators

The choice of these indicators was made after considerable deliberation and "trial and error" over the past three years that has resulted in the acceptance of several selection criteria:

- they address major functional areas of our budget structure (i.e., major health programs)
- they represent I/T/U priority areas in terms of addressing health problems
- they are relatively passive to I/T/U providers in that they are extracted from existing data systems and do not add to their workload
- they do not reward under reporting of conditions (i.e., reducing complication of diabetes was dropped for this reason)
- they are evidenced-based and support recognized standards of care

While not all treatment and prevention indicators measure up to all these criteria, most come close. It is important to acknowledge that for many indicators, a measurable change in the ultimate outcome is not likely to be seen in the one-year time span of the performance plan. Similarly, the target levels that can be accomplished for many treatment and prevention indicators may not be related to funding levels in a simple linear relationship in a one-year period. Recruiting additional health care providers coupled with securing the needed clinical space to utilize them efficiently many require several years before significant improvements to access are realized. In some cases, investments in the supportive infrastructure are the highest priority for long-term effectiveness but will do little in the short-run to increase access to services.

The data that support the treatment and prevention indicators comes from several sources but the largest number are extracted from the IHS automated information system which collects data on the services provided by IHS and tribal direct and contract programs. In addition, the diabetes treatment indicators 2-5 are extracted from the IHS Diabetes Audit that is an annual systematic audit of almost 10,000 charts. Beginning in FY 2001, these indicators will be based on three-year running averages from this audit.

The software used by IHS facilities and most tribal facilities is the Resource and Patient Management System (RPMS). Data are collected for each inpatient discharge, ambulatory medical visit, and dental visit (all patient specific) and for community health service programs including health education, community health representatives, environmental health, nutrition, public health nursing, mental health and social services, and substance abuse (all activities

reporting systems). The patient-specific data are collected through the Patient Care Component (PCC) of the RPMS. For a discussion of data validation processes relative to this system and the diabetes audit, see Appendix A.1 on page 124.

Performance Summary Table 1:
Treatment Indicators

Performance Indicator	FY Targets	Actual Performance	Reference
Diabetes Group			
Indicator 1: Track Area age-specific diabetes prevalence rates (as a surrogate marker for diabetes incidence) for the AI/AN population.	**FY 02:** maintain data-base **FY 01:** maintain data-base **FY 00:** maintain data-base **FY 99:** establish baseline	**FY 02:** **FY 01:** **FY 00:** data-base maintained** **FY 99:** baseline established	**P:** p. 49 **B:** p. IHS-27 p. IHS-129 ** provisional data pending final verification
Indicator 2: Increase the proportion of I/T/U clients with diagnosed diabetes that have improved their glycemic control.	**Ideal Glycemic Control** **FY 02:** 3-year average improved **FY 01:** 3-year average improved **FY 00:** 3-year average improved **FY 99:** 25% **Good Glycemic Control** **FY 99:** 38%	**FY 02:** **FY 01:** **FY 00:** 7/01 **FY 97-99:** 24% **FY 99:** 25% **FY 98:** 22% **FY 99:** 35% **FY 98:** 35%	**P:** p. 50 **B:** p. IHS-27 p. IHS-129 **New FY 1999 Data**
Indicator 3: Increase the proportion of I/T/U clients with diagnosed diabetes and hypertension that have achieved diabetic blood pressure control standards.	**Ideal Hypertension Control** **FY 02:** 3-year average improved **FY 01:** 3-year average improved **FY 00:** 3-year average improved **FY 99:** 41%	**FY 02:** **FY 01:** **FY 00:** 7/01 **FY 99:** 36% **FY 97-99**: 37% **FY 98:** 38%[1]	**P:** p. 52 **B:** p. IHS-27 p. IHS-129 **New FY 1999 Data** [1] baseline corrected, see page 54
Indicator 4 : Increase the proportion of I/T/U clients with diagnosed diabetes who have been assessed for dyslipidemia.	**LDL Cholesterol** **FY 02:** 3-year average improved **FY 01:** 3-year average improved **FY 00:** 3-year average improved **FY 99:** 32% **Total Cholesterol** **FY 99:** 82%	**FY 02:** **FY 01:** **FY 00:** 7/01 **FY 98-99:** 38% **FY 99:** 46% **FY 98:** 29% **FY 99:** 72% **FY 98:** 79%	**P:** p. 53 **B:** p. IHS-27 p. IHS-129 **New FY 1999 Data** .

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 5: Increase the proportion of I/T/U clients with diagnosed diabetes who have been assessed for nephropathy.	**FY 02:** 3-year average improved **FY 01:** 3-year average improved **FY 00:** 3-year average improved **FY 99**: 36%	**FY 02:** **FY 01:** **FY 00:** 7/01 **FY 97-99**: 31% **FY 99:** 36% **FY 98**: 33%	**P:** p. 54 **B:** p. IHS-27 p. IHS-129 **New FY 1999 Data**
Cancer Screening Group			
Indicator 6: Increase the proportion of women who receive Pap screening.	**Pap Screening** **FY 02:** +2% over FY 01 level **FY 01:** +3% over FY 00 level* **FY 00:** +3% over FY 99 level **FY 99:** no indicator **Cervical Cancer** **FY 99:** determine incidence of cervical cancer	**FY 02:** **FY 01:** **FY 00:** 11.9% in past year 17.9% in past 3 years from electronic sample baseline **FY 99:** baseline not adequate see page 58 **FY 99:** 8-10 per 100,000 based on 40% of AI/AN	**P:** p. 55 **B:** p. IHS-27 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 128-132. ** provisional data pending final validation
Indicator 7 Increase proportion of the AI/AN female population over 40 years of age who receive screening mammography.	**FY 02:** +2% over FY 01 level **FY 01:** +2% over FY 00 level* **FY 00:** +3% over FY 99 baseline **FY 99:** establish baseline	**FY 02:** **FY 01:** **FY 00:** 14.7% over past 2 years** from electronic sample baseline **FY 99:** baseline not adequate see page 60	**P:** p. 57 **B:** p. IHS-27 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 128-132. ** provisional data pending final validation
Well Child Care Indicator			
Indicator 8: Increase the proportion of AI/AN children receiving a minimum of four Well Child Visits by 27 months of age and expand coverage.	**FY 02:** +2% over FY 01 **FY 01:** +2% over FY 00* **FY 00:** +3% over FY 99 **FY 99:** establish baseline	**FY 02:** **FY 01:** **FY 00:** 47.7**% (+9.2% over FY 99) **FY 99:** 38.5% baseline	**P:** p. 59 **B:** p. IHS-27 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 128-132. ** provisional data pending final validation

Performance Indicator	FY Targets	Actual Performance	Reference
Alcohol and Substance Abuse Group			
Indicator 9: Maintain the rates and intensity of follow-up for adolescents discharged from IHS supported Regional Treatment Centers (RTC) to assure reduced rates of alcohol and drug use.	**Abstinence** **FY 02:** +5% over FY 01 **FY 01:** +5% over FY 00 **FY 00:** no indicator **Follow-up Rates** **FY 02:** FY 01 level or higher **FY 01:** FY 00 level or higher **FY 00:** 45% (+10% over FY 99 for 3 follow-ups by 12 months post discharge) **FY 99:** establish baseline for 12 months, 6 months, and 30 days follow-up rates	**FY 02:** **FY 01:** **FY 00:** **FY 00:** baseline abstinence 05/01 **FY 02:** **FY 01:** **FY 00:** 48% % -12 mos (+17%) **FY 99:** 40.9% -12 mos baseline 55.2% -6 mos 64.5% -30 days	**P:** p. 60 **B:** p. IHS-51
Indicator 10: Expand the percentage of I/T/U prenatal clinics utilizing screening and case management protocols for pregnant substance abusing women and advocate to expand usage.	**FY 02:** + 5% over FY 01 **FY 01:** + 10% over FY 00 **FY 00:** +5% over FY 99 **FY 99:** establish baseline	**FY 02:** **FY 01:** **FY 00:** 87.6% (+11.7% over FY 99) **FY 99:** 78.4%	**P:** p. 61 **B:** p. IHS-41 **New FY 1999 Data**
Oral Health Group			
Indicator 11: Increase access to optimally fluoridated water for the AI/AN population.	**FY 02:** 10% over FY 01 for AI/AN pop. receiving fluor. water **FY 01:** 10% over FY 00 for demo Areas 5% over FY 00 for other Areas* **FY 00:** 15% over FY 99 for demo Areas **FY 99**: no indicator	**FY 02:** **FY 01:** **FY 00:** 18 systems in compliance (38% increase) **FY 99**: 13 systems in compliance for demo Areas or 2%	**P:** p. 63 **B:** p. IHS-37 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 128-132.
Indicator 12: Increase annual access to dental services for the AI/AN population.	**FY 02:** +1% over FY 01 **FY 01:** 27% **FY 00:** 23% **FY 99**: 21%	**FY 02:** **FY 01:** **FY 00:** 25.1% **FY 99:** 25.1% **FY 98:** 24.5% **FY 97:** 22%	**P:** p. 64 **B:** p. IHS-37

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 13: Increase the percentage of AI/AN children 6-8 and 14-15 years who have received protective dental sealants on permanent molar teeth.	**6-8 yrs** **FY 02:** +1% over FY 01 **FY 01**: +3% over FY 00 **FY 00**: +3% over FY 99 **FY 99**: 50% (36.1% recalculated.) **14-15 yrs** **FY 02:** +1% over FY 01 **FY 01**: +3% over FY 00 **FY 00**: +3% over FY 99 **FY 99**: 58% (59% recalculated)	**FY 02:** **FY 01:** **FY 00:** 44.1% (+ 4.5%)** **FY 99:** 39.6%[1] **FY 91**: 40.1% corrected baseline **FY 02:** **FY 01:** **FY 00:** 49.1% (-15.9%)** **FY 99:** 65.0%[1] **FY 91:** 66.5% corrected baseline	**P:** p. 66 **B:** p. IHS-37 ** provisional data pending final validation [1] see page 67 for explanation of revised FY 99 rates
Indicator 14: Increase the proportion of the AI/AN population diagnosed with diabetes that obtain access to dental services annually.	**FY 02:** 2% increase over FY 01 **FY 01:** no indicator **FY 00:** no indicator **FY 99:** no indicator	**FY 02:** **FY 01:** 7/01 **FY 00:** 7/01 **FY 99:** 30%	**P:** p. 67 **B:** p. IHS-37
Indicator 15: Decrease the proportion of the AI/AN children 6-8 and 14-15 years with untreated dental decay.	**6-8 yrs** **FY 02:** 2% under FY 01 baseline **FY 01**: no indicator **FY 00**: no indicator **FY 99**: no indicator **14-15 yrs** **FY 02:** 2% under FY 01 baseline **FY 01**: no indicator **FY 00**: no indicator **FY 99**: no indicator	**FY 02:** **FY 01:** establish electronic baseline **FY 00:** **FY 99:** **FY 02:** **FY 01:** establish electronic baseline **FY 00:** **FY 99:**	**P:** p. 68 **B:** p. IHS-37.
Family Abuse, Violence, and Neglect Indicator			
Indicator 16: Increase the % of I/T/U medical facilities with Urgent Care or Emergency departments or services that have written policies and procedures for routinely identifying, treating and/or referring victims of family violence, abuse or neglect (i.e., child, spouse, elderly) and train staff in their use	**Staff Training** **FY 02:** 56% **FY 01:** no indicator **FY 00:** no indicator **FY 99:** no indicator **Policies and Procedures** **FY 02:** 82% **FY 01:** 80% **FY 00:** 70% **FY 99**: 60%	**Staff Training** **FY 02:** **FY 00:** 54% (baseline) **Policies and Procedures** **FY 02:** **FY 01:** **FY 00:** 72% **FY 99:** 64% **FY 98:** 47% (baseline)	**P:** p. 69 **B:** p. IHS-43

Performance Indicator	FY Targets	Actual Performance	Reference
Information Technology Development Group			
Indicator 17: Expand the automated extraction of GPRA clinical performance measures by developing test sites to assess and improve data quality.	**FY 02:** assess 5 sites for 5 performance measures **FY 01:** setup 5 sites for testing 5 performance measures **FY 00:** no indicator **FY 99:** no indicator	**FY 02:** **FY 01:**	**P:** p. 72 **B:** p. IHS-137
Indicator 18: Expand the number of I/T/U programs that have implemented the use of the Mental Health/Social Services (MH/SS) data reporting system.	**FY 02:** +5 over FY 01 level **FY 01:** +10 over FY 00 level **FY 00:** +10 over FY 99 level **FY 99:** 50%	**FY 02:** **FY 01:** **FY 00:** 51% **FY 99:** 51% **FY 98:** est. 40-45% baseline	**P:** p. 74 **B:** p. IHS-143
Indicator 19: Develop the specifications and implementation plan for an automated mutually compatible information system, which captures health status, and patient care data for Indian Urban health care programs and implement at field urban sites.	**FY 02:** +10 over FY 01 level **FY 01:** implemented in 30% of urban programs **FY 00:** test in at least one site **FY 99**: develop specs and plan	**FY 02:** **FY 01:** **FY 00:** tested in several sites **FY 99:** accomplished 8/99	**P:** p. 75 **B:** p. IHS-93
Quality of Care Group			
Indicator 20: Maintain 100% accreditation of all IHS hospitals and outpatient clinics.	**FY 02:** 100% **FY 01:** 100% **FY 00:** 100% **FY 99**: 100%	**FY 02:** **FY 01:** **FY 00:** 100% **FY 99:** 100% **FY 98:** 100% (baseline)	**P:** p. 76 **B:** p. IHS-27 p. IHF-11
Indicator 21: Improve AI/AN consumer satisfaction with the acceptability and accessibility of health care as measured by IHS consumer satisfaction survey.	**FY 02:** secure baseline **FY 01:** secure Federal clearance* **FY 00:** Federal clearance and establish baseline **FY 99**: develop instrument and protocol	**FY 02:** **FY 01:** **FY 00:** submitted but clearance not completed **FY 99:** instrument and protocol complete	**P:** p. 77 **B:** p. IHS-27 p. IHS-109 ***** indicates revised FY 2001 measure, see Summary of Changes Table on pages 126-130.
Total Treatment Funding:	**FY 02: $2,746,954,000*** **FY 01:** $2,117,008,000 **FY 00:** $1,931,326,000 **FY 99:** $1,811,951,000 **FY 98:** $1,711,018,000 ***includes 85% of M/M and PI collections and Diabetes		**P:** page # in perform. plan **B:** page # in budget justif.

A. FY 2002 Treatment Indicators:

Diabetes Group:

The following five indicators address the ongoing monitoring and treatment of diabetes in the AI/AN population. Diabetes continues to be a growing problem in many AI/AN communities with rates increasing rapidly in several Areas, age at diagnosis occurring at younger ages, and no signs of decline in any Area. The impact of this disease in terms of individual and family suffering is immense, as are the treatment costs to the Indian health delivery systems. These treatment indicators were selected because of their proven benefits in reducing the morbidity and mortality associated with this condition.

Indicator 1: During FY 2002, continue tracking (i.e., data collection and analyses) Area age-specific diabetes prevalence rates to identify trends in the age-specific prevalence of diabetes (as a surrogate marker for diabetes incidence) for the AI/AN population.

Rationale: This indicator is an essential part of monitoring progress of ongoing efforts in the treatment and prevention of diabetes. Though incidence rates of diabetes (occurrence of new cases within a certain time period) are very difficult and expensive to collect, and are only done reliably in large, population-based studies, trends in age-specific prevalence rates of diabetes can provide evidence of an increase or decrease in diabetes for a certain age group and may suggest a change in true incidence. Analysis of these trends will allow the program and I/T/U's to target prevention efforts to specific age groups and locations in ongoing and future interventions.

Approach: The IHS Office of Public Health is responsible for overall coordination of efforts to achieve this indicator. The IHS Diabetes Program estimates diabetes prevalence of diagnosed diabetes in Native Americans seeking care in I/T/U facilities. Rates are calculated using the IHS automated record system (i.e., PCC/RPMS data), and are reported by geographic Area, gender, and age groups for adults. Three-year rates will be calculated to reduce variability. Three-year running rates (i.e., add the most recent year of data and drop the oldest year of data) will be used in trend analysis. Longitudinal studies of diabetes conducted in Pima Indians since 1965 have provided extensive information on the prevalence and incidence of diabetes in this tribal community. While there are several other tribal-specific diabetes epidemiological studies, none are to the depth of the Pima studies and they cover fewer than 10% of all tribes. Furthermore, there are no published studies on the growing problem of type II diabetes in American Indian youth, though there is extensive recognition by I/T/U providers that the age of diabetes onset is declining to younger adults and children.

Local/tribal facilities can assess diabetes prevalence by using PCC registries and /or diabetes case registries, deriving baseline measures for their tribal communities. The IHS Diabetes Program and the IHS Chronic Disease Epidemiology Program can assist I/T/U facilities to enhance their PCC registries and/or other diabetes registries, as well as establish and organize systematic screening and data entry in order to better ascertain diabetes prevalence. Emphasis will be placed upon the specific age groups identified for this measure.

Diabetes prevalence information will be collected, transformed into similar formats, and transferred to the CDC Division of Diabetes epidemiologist (interagency agreement between CDC and IHS) for analysis and adjusting. Reports will be created and disseminated to I/T/U's, other DHHS agencies, universities, and private foundations for use in identifying prevention strategies and resources.

Data Source: RPMS/PCC reports, Diabetes Registries

Baseline: This indicator commits to establishing and maintaining diabetes prevalence baselines using the IHS PCC and local diabetes registries that are used now in all areas. These rates will serve as the baseline for tribal-specific prevalence studies in selected tribes and will be determined annually.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by IHS/CDC agreements, and supports several HP 2010 objectives in Focus Area 5: Diabetes.

Program Performance: The FY 2000 performance measure was to maintain the Area age-specific prevalence rates for diabetes and has been accomplished. Area age-specific diabetes prevalence rates have been prepared for the AI/AN population based on patients diagnosed with and treated for diabetes and having at least one outpatient visit during FY 1998. Rates are available by IHS Area and sex for 4 age groups (0-19, 20-44, 45-64, and 65+). The chart below summarizes the prevalence of diabetes in the AI/AN population.

Prevalence (%)* of American Indians/Alaska Natives with Diagnosed Diabetes, by Age Group and IHS Service Area, 1998

Area	Age group				ALL
	<20	20-44	45-64	$65	
Alaska	**0.1**	**1.0**	**7.2**	**14.7**	**2.1**
California	**0.2**	**2.2**	**12.6**	**18.6**	**3.9**
Portland	**0.2**	**2.5**	**16.1**	**19.8**	**4.1**
Oklahoma	**0.2**	**3.7**	**17.9**	**19.3**	**5.7**
Navajo	**0.1**	**3.4**	**23.4**	**30.3**	**5.7**
Albuquerque	**0.1**	**4.9**	**28.8**	**31.7**	**7.3**
Aberdeen	**0.2**	**6.0**	**31.4**	**31.5**	**7.3**
Billings	**0.3**	**4.9**	**30.9**	**37.8**	**7.3**
Bemidji	**0.4**	**5.3**	**30.1**	**36.5**	**7.9**
Phoenix	**0.4**	**7.0**	**29.8**	**34.9**	**8.4**
Tucson	**0.5**	**8.0**	**34.3**	**31.3**	**9.4**
Nashville	**0.4**	**13.0**	**44.9**	**36.8**	**13.4**
ALL	**0.2**	**4.1**	**21.8**	**25.2**	**6.0**

Indicator 2 : During FY 2002, continue the trend of improved glycemic control in the proportion of I/T/U clients with diagnosed diabetes.

Rationale: This indicator is directed at reducing diabetic complications. Large clinical studies have demonstrated that glycemic control significantly reduces the incidence of complications related to diabetes. In addition, achieving better blood sugar control has been shown to

significantly reduce the costs associated with caring for people with diabetes. Using Staged Diabetes Management treatment guidelines for diabetes clinical management has significantly improved glucose control in several Indian communities.

Approach: The IHS Diabetes Program conducts an annual medical record review of a random sample of nearly 12,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. Trends over time for I/T/U facilities, service units, Areas and IHS-wide are also constructed for selected indicators. Three-year running rates (i.e., add the most recent year of data and drop the oldest year of data) will be used to reduce variability and provide trend analysis.

Glycemic control refers to how well the blood sugars are controlled in a person with diabetes. It is measured with a blood test called the Hemoglobin A1c that measures the average blood sugar for a 2-3 month period. The IHS Diabetes Care and Outcomes Audit process divides these levels of control into "Ideal" (<7%); "Good" (7.0-7.9%); "Fair" (8.0-9.9%); "Poor" (10-11.9%); "Very Poor" (>12%) categories based on national diabetes care standards. These categories will be used in the GPRA process to determine improvements in glycemic control.

The benefits of aggressive interventions to lower blood sugar in diabetics have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements will improve the performance of this indicator through the use of grants / cooperative agreements for special projects aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetic Coordinators. Efforts to achieve this measure also include the negotiation of wholesale/at cost purchase of newer, more effective (but considerably more expensive) medications for AI/AN diabetic patients.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit

Baseline: The 1997-99 three-year running average of the proportion of all I/T/U clients with diabetes in the desired categories of glycemic control is 24% for "Ideal" control.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objective 5-6 (Diabetes: diabetes-related deaths).

Program Performance: FY 2000 data for this indicator will be available 7/01 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 1999 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes who have improved their

glycemic control by 3% over the FY 1998 level. The baseline criteria for this indicator was originally set on the "Good" control category, which was unchanged at 35% for FY 1998 and FY 1999 at the define “Good” level. However, the IHS Diabetes Care and Outcomes Audit recently updated its criteria for glycemic control based on the American Diabetes Association guidelines that recommend the use of Hemoglobin A1c (HbA1c) cutoffs to determine control at the "Ideal" level. Based on this new criterion, the IHS is adopting it as the basis for assessing this indicator In FY 1998 the proportion of our patients with diagnosed diabetes who were classified as "Ideal" was 22% while in FY 1999 that proportion increased to 25% and we have thus met the 3% increase target for this indicator.

Indicator 3: During FY 2002, continue the trend of improved blood pressure control in the proportion of I/T/U clients with diagnosed diabetes who have achieved blood pressure control standards.

Rationale: This indicator is directed at reducing diabetic complications. Large clinical studies have demonstrated that blood pressure control significantly reduces the incidence of complications related to diabetes. In addition, achieving better blood pressure control has been shown to significantly reduce the costs associated with caring for people with diabetes. Using Staged Diabetes Management treatment guidelines for diabetes clinical management has significantly improved blood pressure control in several Indian communities.

Approach: The IHS Diabetes Program conducts a yearly medical record review of a random sample of over 12,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. Trends over time for I/T/U facilities, service units, Areas and IHS-wide are also constructed for selected indicators. Three-year running rates (i.e., add the most recent year of data and drop the oldest year of data) will be used to reduce variability and provide trend analysis.

Blood pressure control is usually defined in the non-diabetic person as a blood pressure level less than 140/90 mm Hg. However, because a person with diabetes is at greater risk for complications related to blood pressure, national standards recommend that the ideal goal of diabetic blood pressure control should be 130/85 mm Hg. For the GPRA process, “controlled” level will be defined as 140/90 mm Hg and “ideal” control will be defined as 130/85 mm Hg. and both levels will be reported.

The benefits of aggressive interventions to lower blood pressure in diabetics have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements will improve the performance of this indicator through the use of grants / cooperative agreements for special projects aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetic Coordinators. Efforts to achieve this measure also include the negotiation of wholesale/at cost purchase of newer, more effective (but considerably more expensive) medications for AI/AN diabetic patients.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit

Baseline: The 1997-99 three-year running average of the proportion of all I/T/U clients in the ideal contol (<130/85 mm Hg) category was 37%.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objectives 5-6 (Diabetes: diabetes-related deaths) and 5-7 (Diabetes: cardiovascular deaths).

Program Performance: FY 2000 data for this indicator will be available 7/01 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 1999 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes who have achieved diabetic blood pressure control by 3% over the FY 1998 level. Since last year we have adopted the "idea" control standard as our benchmark for all future comparisons. This indicator was not met for FY 1999. In the "ideal" control category, the rate actually decreased from 38% in FY 1998 to 35% in FY 1999. In last year 's submission the baselines presented were not correct. That error has been corrected this year, and is based solely on the ideal control category. The IHS National Diabetes Program is encouraging programs to use the new diabetes funding to enhance their clinical care programs, including better blood pressure screening and more aggressive treatment as well as increased funds to the pharmacy budget to purchase newer, more effective antihypertensive agents.

Indicator 4 : During FY 2002, continue the trend of increasing the proportion of I/T/U clients with diagnosed diabetes assessed for dyslipidemia (i. e., LDL cholesterol).

Rationale: This indicator is directed at reducing diabetic complications. Large clinical studies have demonstrated that lowering of serum cholesterol significantly reduces the cardiovascular (CVD) morbidity and mortality associated with diabetes. In addition, achieving better control of lipid parameters has been shown to significantly reduce the CVD costs associated with caring for people with diabetes. Using Staged Diabetes Management treatment guidelines for lipid management has significantly improved lipid control in patients with diabetes.

Approach: The IHS Diabetes Program conducts a yearly medical record review of a random sample of over 12,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. Trends over time for I/T/U facilities, service units, Areas and IHS-wide are also constructed for selected indicators. Three-year running rates (i.e., add the most recent year of data and drop the oldest year of data) will be used to reduce variability and provide trend analysis. However, because this measure was not included in the audit until 1998, for the FY 2000 performance report the baseline will be the 1998-99 two-year

running average. Beginning with the FY 2001 performance report the baseline for comparison will be the previous three-year running average

The benefits of aggressive interventions to lower cholesterol levels in diabetics have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements will improve the performance of this indicator through the use of grants / cooperative agreements for special activities aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetic Coordinators.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit

Baseline: The 1998-99 two-year running average of the proportion of all I/T/U clients with diabetes who have had a LDL cholesterol assessment done is 38%.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objectives 5-6 (Diabetes: diabetes-related deaths) and 5-7 (Diabetes: cardiovascular deaths).

Program Performance: FY 2000 data for this indicator will be available 7/01 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 1999 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes assessed for dyslipidemia by 3% over the FY 1998 level. Screening for total cholesterol and triglycerides actually decreased overall from 79% in 1998 to 72% in 1999. However, as new research from cardiovascular disease studies in AI/AN became available through the Strong Heart Study, we have learned it is more cost effective to place our emphasis on the "important" cholesterol (LDL cholesterol). So our emphasis to providers over the past year has been to increase LDL cholesterol screening, and we are pleased to report that screening increased from 29% in 1998 to 46% in 1999. The criterion for screening for dyslipidemia has been changed to the assessment of only LDL cholesterol in AI/AN diabetics.

Indicator 5: During FY 2002, continue the trend of increasing the proportion of I/T/U clients with diagnosed diabetes assessed for nephropathy.

Rationale: This indicator is directed at reducing diabetic complications. End stage renal disease (ESRD), or diabetic kidney disease, is a significant and growing problem in Indian communities. Large clinical studies have demonstrated that certain measurements can identify those patients at high risk for ESRD and that interventions aimed at reducing risk (blood pressure control, and other "state of the science" medications) may delay the onset of ESRD. Using the Kidney Health Profile of the diabetes audit and the Staged Diabetes Management treatment guidelines for diabetes clinical management may significantly improve the approach to kidney health in Indian communities.

Approach: The IHS Diabetes Program conducts a yearly medical record review of a random sample of nearly 10,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. A special sub-report of the audit, called the Kidney Health Profile, is generated which assesses screening and treatment for kidney health in a community. Three-year running rates (i.e., add the most recent year of data and drop the oldest year of data) will be used to reduce variability and provide trend analysis.

The benefits of aggressive interventions to lower blood pressure in diabetics relative to kidney health have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements will improve the performance of this indicator through the use of grants / cooperative agreements for special activities aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetic Coordinators.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit

Baseline: The 1997-99 three-year running average of the proportion of all I/T/U clients with diabetes screened for "kidney health" (based on microalbuminuria) is 31%.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objective 5-11 (Diabetes: proteinuria).

Program Performance: FY 2000 data for this indicator will be available 7/01 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 1999 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes assessed for nephropathy by 3% over the FY 1998 level and was achieved. Screening for microalbuminuria to assess early diabetic nephropathy increased from 33% in 1998 to 36% in 1999.

Cancer Screening Group:

These two indicators are directed at increasing the coverage of women receiving screening for breast and cervical cancer and thus increase cancer survival rates and reduce cancer mortality.

Indicator 6: During FY 2002, increase the proportion of women 18 and older that has had a Pap screen in the previous year by 2% over the FY 2001 level.

Rationale: The purpose of this indicator is to reduce cervical cancer morbidity and mortality by early detection. This indicator is selected because cervical cancer occurs at higher rates among AI/AN women than in the general U. S. population. The death rate for AI/AN women is 4.1 per

100,000 compared with 2.5 per 100,000 for the U.S. All Races rate. Furthermore, this cancer is the cause of significant premature mortality, and is almost entirely preventable by thorough Pap screening and early treatment of pre-cancerous conditions. The long-range goal is to reduce both cervical cancer incidence and death rates to achieve parity with the U. S. all-races rate. This may be attainable within 10 years. This indicator supports a nationally recognized standard of care.

Approach: The IHS Office of Public Health is responsible for overall coordination of efforts to achieve these indicators. Public education, training providers to perform colposcopy and treatment, and aggressive follow-up of abnormal Paps will all be part of the strategy. IHS clinical coordinators will work closely with CDC-funded Breast and Cervical Cancer screening programs in States and Tribal Health Departments to ensure that papscreening services are available to all AI/AN women.

Data Source: We had proposed to establish a baseline Pap coverage rate by April, 2000 using information from the electronic medical records (National Patient Information Resource System, NPIRS) from the IHS data center. We did not succeed in establishing this baseline because of technical problems with transferring to a new computer platform and diversion of key personnel to Y2K efforts. However, at the end of 2000 we were able for the first time to determine the pap coverage rate for all women by using these electronic records. A random sample of 5000 AI/AN women over 18 (N=460,377) was selected from the central NPIRS file, and records scanned for either laboratory or clinic visit information indicating that a pap was performed during the previous 12 and 36 months. The percentage of women in the sample who had a pap in the previous 12 months is reported as the pap coverage rate. Current recommendations call for a pap every three years for most women, so the 36month rate is reported as well. Because of concerns about the completeness of data in this central system, this will be followed by a manual chart review of a subset of patients in the sample. After this validation study has been completed (spring 2001), we will be able to make a determination about the adequacy of this method for GPRA indicator measurement, and will plan data improvement efforts to improve the accuracy of this measurement technique.

Baseline: The report from FY 2000 will serve as the baseline for subsequent years.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 Increase the Availability of Primary Health Services, 3.6 Improve the Health Status of American Indians and Alaska Natives, 4.1 Promote the Appropriate Use of Effective Health Care, and 4.2 Reduce Disparities in the Receipt of Quality Health Care Services. It is supported by IHS/CDC agreements (National Breast and Cervical Cancer Early Detection Program). This indicator also, directly supports the HP 2010 objective 3-4 (Cancer: cervical cancer deaths).

Program Performance: The FY 2000 performance indicator was to increase the proportion of women who have annual Pap screening by 3% over the FY 1999 baseline. As discussed above, a reliable baseline for comparison was not possible with our available systems during FY 1999. However, we have established a new electronic sample derived baseline for FY 2000:

- 11.9% of AI/AN women over age 18 had a Pap test within one year;
- 17.9% had a Pap test within three years.

Current recommendations for cervical cancer prevention call for a Pap for all women at least once every three years beginning at age 18 or onset of sexual activity. High risk women should

have a Pap annually. If the 3-year recommendation were universally applied, we should expect to see around 30% of women having a pap every year, and nearly 100% every 3 years. Our observed numbers of 11.9% and 17.9% are far short of that goal. More detailed studies have shown that younger AI/AN women get Pap screening at high rates, but then stop getting screened when they are past child-bearing age. To address this problem, IHS is collaborating with CDC to increase the numbers of older AI/AN women who are screened through the National Breast and Cervical Cancer Early Detection Program.

> **Indicator 7: During FY 2002, increase the proportion of the AI/AN female population over 40 years of age that has received screening mammography in the previous two years by 2% over the FY 2001 level.**

Rationale: The purpose of this indicator is to reduce breast cancer morbidity and mortality by early detection. Breast cancer has long been considered to be rare among AI/AN women. Incidence and mortality rates have been documented in some AI/AN populations to be 1/3 to 1/2 of the White rates. Because of historically low rates of breast cancer among AI/AN women, and because of competing priorities, screening mammography was not a high priority for IHS in the past. This picture seems to be changing, however, with breast cancer incidence in the northern plains and Alaska now approaching the rates of the White population. IHS seldom performed screening mammography before 1991, when the CDC National Breast and Cervical Cancer Early Detection Program was initiated. The CDC funded programs have been successful in reaching AI/AN women in many states, and not so successful in others.

Mammography every one or two years is a nationally recognized standard of care based on its association with both reduced mortality and morbidity because breast cancer is identified at earlier stages. Early identification allows for early clinical intervention and secondary prevention of morbidity and mortality.

Approach: Local service sites that have mammography units are responsible for delivering the screening. There were only six such IHS service sites in 2000. All other sites must refer women to mammography facilities through either the Contract Health Service process or through CDC-funded State or Tribal screening programs. Regional coordination and assistance is the responsibility of the IHS Area offices. The IHS Office of Public Health performs the overall coordination of this effort. Linkages with CDC, State Health Departments, and the American College of OB/GYN are critical to success.

The strategic approach includes outreach to improve patient access and the availability of specialized staff and equipment to perform the screenings. The staff required include public health nurses, Community Health Representatives, and health educators to improve outreach, and specialized clinical providers (nursing, physician, and imaging staff) to provide the actual clinical breast exams and mammograms. The availability of screening must also be associated with the capability to provide diagnostic studies such as ultrasound, biopsy, and fine needle aspiration, as well as treatment such as surgery and chemotherapy.

The successful reduction of premature deaths and morbidity among AI/AN women will depend on full implementation of effective screening and follow-up clinical services. This indicator is linked to success in meeting Strategic Objectives one, two, and four of the Agency's component of the DHHS Strategic Plan.

Data Source: In FY 1999 we intended established a baseline mammography coverage rate using information from the Diabetes Audit, a survey of care among people with diabetes. However, mammography was dropped from the diabetes audit beginning in FY 1999 and we were thus had to develop an alternative approach.

In FY 2000 for the first time we attempted to determine the mammography coverage rate for all women by using electronic medical records (National Patient Information Resource System, NPIRS) from the IHS data center. A random sample of 5000 AI/AN women over 40 was selected from this central file, and records scanned for either radiology, clinic visit, or contract health referral information indicating that a mammogram was performed during the previous 24 months. The percentage of women in the sample who had a mammogram in the previous 24 months is reported as the mammography coverage rate. Because of concerns about the completeness of data in this central system, this will be followed by a manual chart review a subset of patients in the sample. After this validation study has been completed (spring 2001), we will be able to make a determination about the adequacy of this method for GPRA indicator measurement, and will plan data improvement efforts to improve the accuracy of this measurement technique.

Baseline: Our previous baseline was from the Annual Diabetes Audit from 1997, which found that 27% of women with diabetes had been screened for breast cancer in accordance with American Cancer Society guidelines. In addition, we were not satisfied with this baseline because of questions about the representativeness of the sample (diabetic women only) and the expense of the manual chart review. The revised automated approach for FY 2000 uses inexpensive and reproducible methods, and will serve as the baseline for subsequent years.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 Increase the Availability of Primary Health Services, 3.6 Improve the Health Status of American Indians and Alaska Natives, 4.1 Promote the Appropriate Use of Effective Health Care, and 4.2 Reduce Disparities in the Receipt of Quality Health Care Services. It is supported by IHS/CDC agreements (National Breast and Cervical Cancer Early Detection Program). This indicator directly supports HP 2010 objective 3-3 (Cancer: breast cancer deaths).

Program Performance: The FY 2000 performance indicator was to increase the proportion of the AI/AN female population over 40 years old who have had screening mammography during the previous year by 3% over the FY 1999 baseline. This comparison was not possible because mammography was dropped from the diabetes audit and alternative approaches were not developed until FY 2000. Using the new measurement methodology discussed above, in FY 2000 14.7% of AI/AN women over age 40 had a mammogram during the previous two years. This data was derived from the IHS NPIRS central database, as a simple random sample of 5000 women drawn from all AI/AN women over age 40 who had at least one IHS visit during FY 2000 (N=207,398).

We used the two-year interval to have data that were comparable with National reports, and to be consistent with current recommendations and clinical guidelines. The mammography rate is lower than our target rate; we suspect that it represents a significant undercount.

This mammography rate only includes mammograms that are entered into the IHS electronic medical record, which includes primarily those performed by or paid for by IHS. It is highly likely that many AI/AN women get mammograms outside the IHS system, either through State Breast and Cervical Cancer Early Detection Programs (CDC-funded), at health fairs, or from private providers that are paid by private insurance or Medicare/Medicaid. In general, these sources do not contribute records to the IHS record system, so they were not counted in this survey. We are exploring ways to include data from the CDC program and from HCFA in this process, in order to obtain a more accurate count.

Well Child Care Indicator:

Indicator 8: During FY 2002, increase the proportion of AI/AN children served by IHS receiving a minimum of four well-child visits by 27 months of age by 2% over the FY 2001 level.

Rationale: This indicator is directed at improving child and family health by expanding access to non-urgent care. Well child visits have been associated with improved post-neonatal mortality and opportunities to improve family health and safety in the longer term and is a recognized national standard of care. Of particular importance are the anticipatory educational interventions given to parents concerning diet and nutrition, injury prevention, and prevention of family violence. The current minimum standard for Well Child Visits is six for first-born children and five after first born. Accepting four visits as an acceptable minimum is based on the high percentage of children who receive Well Child services in conjunction with urgent care visits and thus are not coded as Well Child Visits.

Approach: The responsible parties are the local I/T/U service sites. The IHS Area offices can provide assistance in development and coordination of media campaigns and analysis of information and they are responsible for regional coordination of this effort. The IHS Office of Public Health is responsible for overall coordination of the effort. Linkages with the USDA-WIC program and the DHHS Head Start program are also critical.

The strategies for success are rooted in effective outreach and management of clinic scheduling for service provision. The outreach activity is dependent upon parent education to assure their awareness of the importance of routine and periodic assessment of well children. Secondly, the effective identification of children in the targeted age groups is important. Public health nursing, Community Health Representatives, Head Start programs, and parent groups have important roles in identifying children and families who are the target of this intervention.

Clinical care is dependent upon the availability of trained nursing and physician staff with the time to address this objective. Scheduling and follow up of these children and their families is critical. The cooperation of medical records staff and others in the clinical environment is essential. Achievement of effective well-child health care is critical to the prevention of childhood obesity, injuries, and family dysfunction.

Data Source: RPMS/PCC

Baseline: Determined by the FY 1999 Indicator and reported below

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, and 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services* and broadly addresses the HP 2010 objectives addressing Focus Area 16: Maternal, Infant, and Child Health.

Program Performance: The FY 2000 performance indicator committed to increase by 5% the proportion of AIAN children served by IHS receiving a minimum of four Well Child Visits by 27 months of age, over the FY 1999 baseline. The well child visit indicator was exceeded. In FY 2000, 5, 840 children or 47.7% out of 12, 237 children received a minimum of four well-child visits by 27 months of age. This is an increase of 9.2% over the FY 1999 proportion of 38.5% (3, 799 of 9,873 children). These findings should be considered provisional and may be revised pending the verification and approval of FY 1998-FY 2000 workload by the Areas. Also, modifications to refine the algorithm may be incorporated in the next GPRA cycle.

Substance Abuse Treatment Group:

These two indicators address substance abuse treatment. The first in terms of reducing relapse rates by improved aftercare for youths completing residential treatment programs. The second addresses identification and referral of pregnant woman at risk for alcohol related birth defects.

Indicator 9: During FY 2002, youths discharged from Regional Treatment Centers (RTC) will:

a. receive follow-up equal to or greater than the FY 2001 level

b. increase by at least 5% over FY 2001, the youths who have documented 6 months of less alcohol and drug use than before treatment

Rationale: This indicator is intended to reduce drug and alcohol use relapse in youths discharged from the 11RTCs serving 11 of the 12 IHS Areas. Studies indicate that the longer individuals are engaged in treatment (including aftercare/continuing care) the better the prognosis (Hoffmann, DeHart, & Gogineni, 1998; Zywiak, Hoffmann, & Floyd, 1999). One RTC evaluation concluded, "aftercare is the biggest problem" with limited coordination among RTC, service units and local aftercare programs. This measure aims to assure the effective and efficient delivery of follow-up treatment services at the local level following RTC release. A follow-up consists of a structured case management activity whereby continuity of care, treatment modalities and treatment services are assessed. This assessment of integrated aftercare activities is designed so that an individual's changing needs will be met as that individual moves through the recovery process thereby decreasing relapse**.**

Approach: The Division of Clinical and Preventive Services, Office of Public Health will be responsible for coordinating data collection from the RTCs who are the responsible parties. The Alcoholism and Substance Abuse Program has developed an ongoing evaluation instrument in consultation with the RTC. The evaluation process began implementation in FY 1998 and includes follow-up information that will be reported to program staff and compiled for tracking this indicator. In addition, those RTC utilizing the RPMS Chemical Dependency Management Information System (CDMIS) and the RPMS Mental Health/Social Service (MH/SS) packages, routinely collect follow up information that can be exported for national reporting purposes. Aftercare services (for those utilizing CDMIS) occurring at local sites will also provide

additional data to support tracking of this indicator as appropriate. Efforts to improve reporting by local tribally managed programs will continue to be solicited.

Findings from the Comprehensive Assessment & Treatment Outcome Research adolescent study indicate that youth engaged in aftercare/follow up activities had better sobriety rates than those who did not, but for optimal benefit, contact frequency of at least twice per week was required (Hoffmann, Mee-Lee, & Arrowood, 1993). The majority of aftercare services are the responsibility of local programs as youth who have completed YRTC treatment return to their community for aftercare services. Although one-year follow-up information was limited in the IHS RTC Evaluation completed in FY 1997, data did suggest that youth that completed treatment and were involved in continuing care and follow-up services maintained higher sobriety rates.

Data Source: Data for this indicator are collected from the RPMS, the RTC evaluation system, and other software utilized by the RTCs and provided to the Areas and Headquarters. Both Area and Headquarters behavioral health staff review the data for completeness and have frequent dialogue with each other or directly with the RTC s to resolve identified data problems. These different sources of data are then analyzed and compiled into one report at Headquarters. Efforts to standardize the RTC data collection format for all RTCs and Areas is a priority during FY 2001 and FY 2002 and will simplify and improve the verification and validation process.

Baseline: The initial baseline for follow-up was established in FY 1999. A baseline assessment for abstinence rates following discharge will be collected during FY 2000 for comparison in FY 2001.

Type of Indicator: Process/Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.4 *Curb Alcohol Abuse*, 1.5 *Reduce the Illicit Use of Drugs*, 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services*. This indicator also directly supports HP 2010 objective 26-10 (Substance Abuse: reduce youth use of illicit substances).

Program Performance: The FY 2000 performance measure was to increase by 10% the youths discharged from adolescent RTCs who have receive at least three follow-up visits in the first year following treatment over the FY 1999 baseline. This target was accomplished in FY 2000 with 48.0% of the youths discharged from RTC who receiving follow-up contacts at 30 days, and at least a second follow-up by 6 months, and at least a third at 12 months after discharge compared to 40.9% in FY 1999 which represents a 17% increase in follow-up. In addition, the percentage of youths who received follow-up in the critical first 30 days following discharged also increased from 64.5% in FY 1999 to 69.5% in FY 2000 for an increase of 7.8%.

Indicator 10: During FY 2002, increase the proportion of I/T/U prenatal clinics utilizing a recognized screening and case management protocol(s) for pregnant substance abusing women by 5% over the FY 2001 level.

Rationale: The purpose of this indicator is to contribute to systematic efforts at reducing the incidence of Fetal Alcohol Syndrome (FAS). Surveillance conducted at 2 IHS Areas indicated FAS rates greatly exceed general population rates (2.3 and 2.7/1000 live births vs. 0.6/1000 live

births approximately). The Institute of Medicine 1996 report on FAS includes case identification and appropriate intervention and treatment of a maternal alcohol abuse as a critical part of FAS prevention. Thus, the purpose of this indicator is to assure that providers consistently screen and make appropriate referrals for women at risk. The written protocol makes this more likely because these efforts become part of the local quality assurance process. However, successful implementation of such a process requires staff training as well as cooperation from tribes and local governing bodies and thus requires resources and time.

Approach: The I/T/Us will be responsible for reporting via survey to be conducted by the Division of Clinical and Prevention Services, Office of Public Health relative to the implementation of protocols. Resources for analysis may be required from other divisions within the Office of Public Health. The Prenatal Health Assessment (PHA) screening instrument was developed in the Aberdeen IHS Area with the Centers for Disease Control and Prevention. A curriculum for utilizing the instrument in prenatal clinics and developing case management systems has been piloted in that Area in FY 1998. In the Aberdeen Area, there are numerous clinics and hospitals that are currently using the protocols. In FY 1999 the protocols will be piloted in two new Areas. This screening instrument is one of several recognized protocols that are being encouraged for use in I/T/U programs to assure the routine prenatal substance abuse screening and case management tailored to the resources of each site. The PHA is currently being reviewed by the Medical Records and will be provided for use nationally by the IHS end of FY 1999. A baseline will be established via the survey in 1999 and repeated in 2000.

Data Source: Survey and possibly RPMS

Baseline: Determined by FY 1999 Performance Indicator = 79.6%

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.4 *Curb Alcohol Abuse*, 1.5 *Reduce the Illicit Use of Drugs*, 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also directly supports several HP 2010 objective 16-16 (Maternal, Infant, and Child Health: Fetal Alcohol Syndrome).

Program Performance: The FY 2000 indicator committed to increasing the proportion of I/T/U prenatal clinics utilizing a recognized screening and case management protocol(s) for pregnant substance abusing women by 5% over the FY 1999 level which was 78.4% based on 11 Areas reporting . For FY 2000, all 12 Areas reported for a total of 227 prenatal clinics, 199 had implemented such protocols for a rate of 87.6% that is an 11.7% improvement over FY 1999. Also, in this year all areas reported on this indicator and one area actually went from 70% to 100%, but one area showed no improvement from the FY 1999 baseline.

Oral Health Group:

Because oral diseases seldom result in death or severe disability, the importance of treating and preventing them is often overshadowed by other health priorities, particularly in times of a growing demand for a diversity of urgent care medical services. However, as was made evident from the IHS Dental Program's participation in the 1989-91 World Health Organization oral health status study, the oral conditions of Indian participants were far worse then the U.S.

General population and profoundly influenced their quality of life, including their ability to attend school, work, sleep, eat, and socialize. An overview of the findings of this study was provided in the section titled: "The Role of Poverty, " on page 30 of this document.

Given these poor oral health conditions, it is not surprising that dental health has been consistently identified as a high priority in surveys of American Indian and Alaska Native (AI/AN) consumers' health needs. Furthermore, dental care has been consistently identified in recent stakeholder developed budget formulation activities as one of the top five health priorities for the IHS to address with budget requests.

Indicator 11: During FY 2002, increase the proportion of AI/AN population receiving optimally fluoridated water by 10% over the FY 2001 levels for all IHS Areas.

Rationale: Fluoridation is one of the most cost effective public health measures for reducing the prevalence of dental decay in all age groups. Costs range from a mean of 31 cents per person per year to $2.12 per person in communities with less than 10,000 people. For many Indian communities, the cost may be up to $5 per person per year since most of the water systems in Indian country serve less than 1,000 people. It has been estimated that for every dollar spent on fluoridation, there is a $50 savings in dental treatment. Fluoridation of community drinking water is a major factor responsible for the decline in dental caries (tooth decay) during the second half of the 20th century. In a 1991 oral health survey conducted by the Indian Health Service, there was a 31% decline in caries rates in adolescent children in those communities with access to fluoridated water. However, despite the known benefits of fluoridation, the number of fluoridated water systems in Indian country has declined by 68% over the last nine years. In 1991, 717 water systems were fluoridated and routinely monitored for fluoride ion levels. By 1999, only 226 systems were fluoridated and monitored. This decline in systems has had an adverse impact in the percent of the population that needs the benefits most and are now receiving the least benefits from this proven public health measure.

Approach: The IHS Dental Program, Office of Environmental Health and Engineering Branch, and the Centers for Disease Control and Prevention's Division of Oral Health entered into an interagency agreement in FY 2000 to support a demonstration fluoridation project in the Albuquerque and Phoenix Areas. The funds were used to hire a contractor in each Area to provide on-site visits to each tribe to promote community water fluoridation. The contractor provided information to the community on water fluoridation, assessed need for training and technical assistance for the water operator, and managed the split sample and surveillance system. The contractors will receive training using the CDC's web-based Water Fluoridation Reporting System (WFRS).

The expansion of this indicator to address all IHS Areas in FY 2001 and FY 2002 is the result of earmarked funding of $500,000 in FY 2001 to support water fluoridation IHS-wide. Rapid export of lessons learned during the demonstration project will be necessary to impact the FY 2001 levels for all other Areas. Areas will expand upon and revise the strategies adopted by the pilot sites in initiating their programs. Each Area will have one individual responsible for fluoridation surveillance and reporting. Funds to each Area may be used to hire a "circuit rider," as was planned at the pilot sites, or in other ways to enhance fluoridation efforts. Each Area will submit an annual plan of action and an annual report of activities and outcomes. For FY 2002, the measure of the indicator will address increasing the proportion of the AI/AN population

receiving optimally fluoridated water from the previous focus of increasing the number of water systems in compliance with fluoridation standards. The compliance standards will remain the same but measuring population encourages efforts be directed where the largest possible population benefit can be achieved from the available resources.

Date Source: Water Fluoridation Reporting System (WFRS) and database maintained by CDC.

Baseline: FY 2001 level available January 2002

Type of Indicator: Impact

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* 4.1 *Promote the Appropriate Use of Effective Health Care,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also addresses HP 2010 objective 21-9 (Oral Health: community water fluoridation).

Program Performance: The FY 2000 indicator committed to improve water fluoridation compliance by 15% over FY 1999 levels for Areas participating in IHS / CDC Fluoridation Surveillance Demonstration Project (Albuquerque and Phoenix Areas). In FY 1999 only 13 water systems in these Areas met the standard of being in compliance. For FY 2000 this increased to 18 systems or a 38% increase in systems.

Indicator 12: During FY 2002, increase the proportion of the AI/AN population who obtain access to dental services by 1% over the FY 2001 level.

Rationale: This indicator is directed at improving the oral health status. Evidence from large-scale dental insurance studies support that people who utilize dental services annually have improved oral health status compared to those who do not. The growing AI/AN population has resulted in higher demands for dental care and increasing difficulties in recruiting dentists has compounded this problem. As a result, there has been almost a 10% reduction in the percent of the AI/AN population annually receiving dental services in recent years. Restoring access to both primary and secondary treatment and preventive services can lessen the disease progression. Improving access and thus increasing utilization of dental services can also result in less costly care, improved oral health status, and quality of life.

The IHS conducted a program-wide oral health survey in FY 1999 to determine oral health status of the AI/AN population. Preliminary analysis of national oral health survey data suggest:

- moderate increases in tobacco use from 1991 to 1999 in young adults ages 35 – 44; severe increases in tobacco use in adolescents ages 15 – 19. Widespread vacancies preclude the possibility of consistent counseling within the dental program.
- significant increases in the number of decayed, missing, and filled teeth in all age groups from 1991 to 1999. Increases in measured disease experience are inversely correlated with access to dental care.
- significant decreases from 1991 to 1999 in both the number of people served by fluoridated water systems, and the number of young children receiving preventive dental sealants. It is reasonable to assume both unfortunate decreases are exacerbated by the widespread vacancies among oral health care providers.

- In 1991, 717 water systems serving Native Americans were fluoridated and were routinely monitored for fluoride ion levels. By 1999, only 226 systems were fluoridated and monitored.
- In 1999, 78% of adolescents ages 15 – 19 had received one or more dental sealants. This figure, a legacy of the clinical efforts of approximately a decade ago, remains significantly higher than levels of coverage suggested by any national health objective for the U.S. population. In 1999, only 39% of youngsters ages 6 – 8 had one or more sealants.

Approach: Providing access to care is directly dependent upon the dental care resources in a community which include the availability of dental providers and facilities, and their efficiency in providing services. The dental funding enhancements of FY 2001 will be continued in FY 2002 to increase access to dental services through a combination of strategies that include:

- increase the I/T/U dental workforce by increased effectiveness in the recruitment of staff to fill vacant and newly funded dental positions using advance communications technologies, greater use of alternative pay systems, and expanded loan repayment opportunities.
- increase retention and productivity of dental providers through the expansion/enhancement of support centers to provide training and technical assistance to enhance efficiency and effectiveness of preventive and clinical care, and restoration of short and long-term staff training opportunities.
- update and simplify the automated dental record keep system to enhance clinical efficiency and planning and evaluation capability.
- expand essential dental specialty services through contracts with the private sector.
- target specific populations, (i.e., school-age children, diabetics or other special target groups), utilizing third party payers, and identifying Medicaid-eligible families which would result in increased resources to hire additional staff.

For the numerator of this calculation, the dental program will count the number of patients who access I/T/U and contract systems through the dental exam and first visit procedure codes within the Dental component of the PMS patient data record as a valid proxy measure of annual dental care utilization. The denominator will be the IHS three-year user population.

Data Source: IHS Dental Data System component of the RPMS. The IHS Dental Data coordinator compiles dental data monthly from the IHS data processing center and sends to the Area Dental Consultants for verification. Missing data or data that does not look reasonable are addressed by checking back with local programs.

Baseline: FY 2001 level available January 2002

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.,* This indicator also relates to the HP 2010 objectives 13.12 (Oral Health: referral and follow-up: children) and 21-10 (Oral Health: use of oral health care system).

Program Performance: The FY 2000 indicator committed to achieving the target level of 23% of the AI/AN population receiving dental services. This performance measure was achieved with 25.1% of the user population having accessed dental care during FY 2000. This was derived from 361,823 first appointments recorded in all 12 Areas during FY 2000 divided by the IHS calculated user population 1,452,839 minus 10,585 which is the estimated population of one tribal program that did not submit dental data. Thus, the rate is calculated on 99% of the user population.

The vacancy rate for dental providers of approximately 18% is the key determinant limiting access to care. A full time dental recruiter has been hired; many new strategies to decrease vacancy rate are in the process of being implemented. These include recruitment visits to every U.S. dental school, a professionally designed and produced recruitment package, increased remuneration for incoming dentists, increased opportunities for loan repayment, and other strategies.

Indicator 13: During FY 2002, increase the percentage of AI/AN children 6-8 and 14-15 years who have received protective dental sealants on permanent molar teeth by 1% over the FY 2001 level.

Rationale: The intent of this indicator is to reduce dental decay in children. Dental sealants, a recognized standard of dental care, are an effective measure for reducing dental decay rates in children and can be effectively applied by dental auxiliaries at relatively low cost. Sealants and fluorides can prevent almost all tooth decay and play a role similar to vaccinations. Because surveys of AI/AN children's oral health status have consistently identified significantly higher decay rates than the U. S. general population, sealants are essential to reducing the ravages and costs of treating dental decay. The IHS Dental Program was one of the few dental programs in the nation to have achieved the HP 1990 and 2000 dental sealant objectives. However, based on FY 1999 IHS Oral Health Survey, no significant progress has been achieved since the FY 1991 IHS Oral Health Survey and coverage actually declined for the younger age group. In 1999, 78% of adolescents ages 15 – 19 had received one or more dental sealants. In 1999, only 38% of youngsters ages 6 – 8 had one or more sealants. Again, increasing difficulties in the recruitment and retention of dentists, and the loss of infrastructure, particularly the Area Health Promotion / Disease Prevention officers have probably contributed to the decline in the number of sealants placed in the younger age group.

Given the current workforce in the Indian Health Service dental program, innovative changes in use of auxiliary as well as delivery sites need to occur.

Approach: Local dental clinics are responsible for implementing/maintaining effective and efficient sealant programs that are either school-based or school-linked and targeted for children ages 6-14 years (to coincide with the eruption of first and second permanent molar teeth). Use of a specialized procedure code, which was created specifically to measure use of sealants in school-age children, will enable local programs to track progress in meeting this objective. The Dental Data Software package in the RPMS environment can capture the number of children examined and the number of children who receive dental sealants on a quarterly and annual basis and thus document trends.

In order to increase the percent of Indian children and adolescents that have molar sealants, an innovative approach will be required. The use of contract 4-handed dental sealant teams will be

hired from the private sector. In addition, dental Community Health Aides may be trained to assist dental hygienists and dental assistants in placing sealants. Additional portable equipment to be used in the schools is an efficient way to reduce demands on limited clinic space and going to where the children are – the schools.

Data Source: IHS Dental Data System component of the RPMS.

Baseline: FY 2001 level available January 2002

Type of Indicator: Impact and Balance Scorecard: innovation and learning perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* The indicator also addresses the HP 2010 objective 21-8 (Oral health: dental sealants).

Program Performance: The FY 2000 performance measure was to assure that the percentage of children 6-8 and 14-15 years who have received protective dental sealants on permanent molar teeth is increased by 3% over the FY 1999 IHS Oral Health Survey level. For FY 2000, only one of the two performance targets was achieved. In FY1999 39.6%* of the children of the 1,513 children ages 6 - 8 in the oral health survey had sealants on their molar teeth. In FY 2000, 44.1% of 7,609 children 6 - 8 years from 5 Areas had sealants on their molar teeth, an increase of 4.5% over FY 1999. However, in FY 1999 65.0%* of 873 children ages 14-15 years in the oral health survey had sealants on their molar teeth, while in FY 2000 only 49.1% of the children in this age group had sealants on their molar teeth, a decrease of 15.9%.

The findings for both age groups must be taken with caution for FY 2000 because they are based on samples from only 5 of the 12 Areas and represent less precise estimates of sealant coverage than the IHS national oral health surveys, which are conducted only once every 7-9 years. Prevalence of children with sealants remains difficult to assess short of running national oral health surveys annually, which is prohibitively expensive. The current method used to derive FY 2000 estimates relies upon the use of codes that are inconsistently utilized. IHS epidemiologists and statisticians are now working to improve the methods for assessing the prevalence of children with sealants in the intervening years between oral health surveys. This approach must be made using replicable and efficient methods undisruptive of the provision of clinical care.

> ***Note** that these findings have changed slightly from preliminary data reported last year prior to having all outstanding data included in the analyses an now verified for the oral health survey.

Indicator 14: During FY 2002, increase the proportion of the AI/AN population diagnosed with diabetes who obtain access to dental services by 2% over the FY 2001 level.

Rationale: The purpose of this indicator is to improve both oral health status and diabetic control for AI/AN diabetics. Evidence from large-scale dental insurance studies support that people who utilize dental services annually have improved oral health status compared to those who do not. Furthermore, evidence from a study conducted an IHS setting supported by NIH in collaboration with the State University of New York at Buffalo has shown that that diabetic patients experience periodontal disease more frequently and with greater severity than non-

diabetics. In addition, this study has shown that reduction/elimination of periodontal disease through clinical treatment results in improved glucose control. Additionally, a growing body of evidence has identified periodontal disease as a significant risk factor for heart attack and stroke.

There has been almost a 10% reduction in the percent of the AI/AN population annually receiving dental services in recent years. This reduction in services has also been manifested in a reduction of services for diabetic patients. Restoring access to both primary and secondary treatment and preventive services for diabetics can lessen periodontal disease progression and the subsequent affects on diabetes and overall health. Improving access and thus increasing utilization of dental services can also result in less costly care, improved health status, and quality of life.

Approach: Individual I/T/U hospitals and clinics provide access to care for diabetic patients in a wide variety of ways. Additionally, the level of dental care that is provided to diabetics varies greatly. An emphasis by dental clinics to provide prioritized access to care for diagnosed diabetics would go a long way to improve the oral health of this population. At a minimum, a yearly examination provides an educational opportunity to enlighten the diabetic on their oral health status and proper home care to reduce periodontal disease and it's affect on diabetic control. Those programs with additional time and resources can provide anything from extraction of teeth that are severely involved with periodontal disease to comprehensive periodontal therapy and dentures.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit

Baseline: FY 2001 actual performance level will serve as baseline and will be available July 2001. For the purpose of showing trend data the FY 1999 performance level was 30% and the FY 2000 level will be available 7/01.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.,* This indicator also relates to the HP 2010 objective 21-10 (Oral Health: use of oral health care system).

Program Performance: No FY 2000 Indicator

Indicator 15: During FY 2002, reduce the rate of untreated dental decay in children 6-8 year and 14-15 year by 2% below the FY 2001 electronically developed baseline.

Rationale: The purpose of this indicator is to maintain oral health and quality of life for AI/AN children. Evidence supports that untreated dental decay results in higher probability of tooth loss and loss of oral functioning. The 1991 IHS Oral Health Survey documented that 72% of AI/AN 6-8 year olds and 61% of 14 to 15 year olds had untreated decay. Even with the implementation of sealant and fluoride programs for school age children, the 1999-2000 IHS Oral Health Survey identified 62% of 6-8 year olds and 67% of 14-15 year olds with untreated decay. Children with untreated decay can suffer from pain, poor aesthetics, and loss of productive school time. Treating the carious lesions that exist in Native American children will improve their oral health,

their chewing function, their willingness to smile, and will allow them to go about their daily activities without the burden of pain from toothaches. Reduction of untreated dental decay in children will ultimately improve their overall quality of life.

Approach: The principal way to address untreated dental decay is through improved access to dental clinical services. Primary oral health prevention activities will also result in a reduction in untreated decay over time. Additional dental staff, facilities, equipment, and resources to provide preventive and clinical restorative care will be directed to properly deal with this health disparity in the AI/AN population. A list of available interventions include:

- prioritized clinical access for school-aged children
- school-based screening programs to identify children with active decay.
- school-based dental sealant programs.
- school-based fluoride varnish, fluoride rinse, and fluoride gel programs.
- expanded community water fluoridation activities.
- expanded use of new technologies in dental materials including decay control varnishes and glass ionomer restorations.

Data Source: Dental Data System/RPMS data system . On an annual basis, number of code #IH72 divided by the number of dental patients in each age group will yield the percentage of those with untreated decay.

Baseline: 1999-2000 IHS Oral Health Survey showed that 62% of 6-8 year olds had untreated decay and 67 % of 14-15 year olds had untreated decay

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also relates to the HP 2010 objective 21-2 (Oral Health: reduce the proportion of children, adolescents, and adults with untreated dental decay).

Program Performance: No FY 1999 Indicator

Family Violence, Abuse, or Neglect Indicator:

Indicator 16: During FY 2002 the IHS will assure that:

a. at least 82% of I/T/U medical facilities (providing direct patient care) will have written policies and procedures for routinely identifying and following:

- **spouse/intimate partner abuse**
- **child abuse and neglect**
- **elder abuse or neglect**

b. at least 56% of I/T/U medical facilities will provide training to the direct clinical staff on the application of these policies and procedures.

Rationale: The purpose of this indicator is to help reduce the prevalence of family violence, abuse, and neglect by identification and referral for services. Victims of these conditions come to the health care system with a variety of physical injuries, illnesses or medical conditions directly related to abuse. The umbrella of family violence includes child, spouse or elder abuse and/or neglect. Experts in the field of family violence have identified an important link between violence against women and the abuse of their children. Research indicates that children who witness violence in the family are affected in the same way as children who are physically and sexually abused (Goodman and Rosenberg, 1987). The propensity for family violence can extend to older members of the family (parents, grandparents, aunts, uncles) living in the home. The consequences of family violence can be seen in physical, psychological and cognitive results such as intentional and unintentional injuries, detachment, avoidance, depression, and suicidal ideation.

Thus, the approach of this indicator is to increase the likelihood that providers consistently screen for indications of violence, abuse or neglect and making appropriate referrals. The written protocol makes this more likely because these efforts become part of the local quality assurance process. However, successful implementation of such a process also depends on staff training as well as cooperation from tribes and local governing bodies and thus requires resources and time. In the future, training will be part of the target measure for this indicator.

Approach: The Mental Health and Social Service program will work with IHS Area Offices to assure that staff members are appropriately trained and local policies and procedures are established for these health concerns. Tribal and urban programs will also be encouraged to address these areas and IHS will respond to requests for assistance. Existing funds and staff will be utilized. Achievement of the indicator will increase local identification of family violence and referral for appropriate prevention services and treatment of family violence, including the perpetrators, the individual victims, as well as the families and communities that suffer the consequences.

Data Source: Annual survey and/or progress review by IHS Area and Headquarters staff.

Baseline: Determined in FY 1998 to be at 47%. At that time 31 of 66 IHS Service Units reporting had Policies and Procedures in place to address this indicator. A survey in FY 1999 of 223 clinics and hospitals showed that 64% had written policies and procedures for domestic violence.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 2.4 *Improve the Safety and Security of Children and Youth,* 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also addresses several HP 2010 objectives in Focus Area 15: Injury and Violence Prevention.

Program Performance: The fiscal year 2000 Indicator was to assure that at least 70% of I/T/U medical facilities with urgent care or emergency departments or services have written policies and procedures for routinely identifying, treating, and / or referring victims of domestic violence, abuse, or neglect (i.e. child, spouse, elderly). Performance on this indicator in FY 2000 was assessed through a survey of I/T/U health centers, village clinics, and ambulatory and hospital based facilities. This included facilities with and without urgent care and/ or emergency departments.

In 1999, a survey of 223 facilities showed that 64% had written policies for domestic violence. The FY survey was similar though more detailed about elder and/ or child abuse and was initially mailed to 314 hospital and ambulatory care sites. The overall response rate was 42 %; this includes the following break down:

a. hospital based response rate of 49% (24/49)
b. ambulatory facility response rate of 39% (107/265)

The above response rates are reflective of facilities with emergency and/ or urgent care centers. The questions were designed to assess different policies and procedures. Facilities with emergency rooms and/or urgent care centers that responded indicated the following compliance with written policies and procedures:

a. spouse/ intimate partner abuse – 68%
b. child abuse / neglect – 80%
c. elder abuse/ neglect – 68%

Averaging these three categories give an aggregate rate of 72%. In addition, approximately 54% of these responding facilities offered staff training on child and elder abuse and neglect, as well as spouse/ intimate partner abuse.

On aggregate the IHS achieved this indicator lead by the high percentage of clinics having policies to address child abuse and neglect, but is behind the 70% level for spouse/ intimate partner abuse, as well as elder abuse and neglect. The reasons for this include the following:

a. Lack of survey response- the method of survey should be changed next year to include follow-up phone calls, as well as an accessible on-line database for updating information about policies and procedures, and for verifying compliance with this indicator. Time frame for completion – 9/01
b. Possible inaccurate information - throughout IHS, 100% of hospitals are Joint Commission on the Accreditation of Health Care Organizations (JCAHO) accredited. These facilities must have a compliance rate of 100% for policies and procedures in these three areas (as these policies and procedures are mandated by JCAHO). In addition, JCAHO recommends similar policies and procedures in ambulatory settings (as does National Council on Aging). There are substantial external pressures from credentialing bodies to achieve this indicator.
c. Lack of prototype policies and procedures – the IHS Women's Health web site will soon function as a repository for 'prototype' policies and procedures for these three areas. At that time, we will send out a notification to clinical directors about the accessibility of this information on-line. Time frame for completion – 6/01

Information Technology Development Group:

The following three indicators address the development of improved automated data capabilities that support clinical care and performance measurement and include efforts to:

- develop test sites to expand automated GPRA clinical data extraction capacity for clinical GPRA measures
- expand distribution and use of the mental health and social services module of the RPMS system across I/T/U settings to improve performance management of behavioral health
- expand IHS compatible data management capabilities at urban Indian program sites to support the contribution of data to the larger IHS and tribal aggregations for planning and performance management efforts, including GPRA.

Note, this is a new FY 2002 and FY 2001 Indicator

Indicator 17: During FY 2002, IHS will
- **Collect baseline data for any performance measures where electronic data collection was implemented in FY 2001,**
- **Complete and report on the pilot web-based training program**
- **Complete implementation of LOINC standards in IHS's clinical information system**

Indicator 17: During FY 2001, IHS will:
- **Conduct a pilot study at five sites to evaluate the potential of electronically extracting data from the RPMS to report on five clinical performance measures,**
- **Begin one or more intervention studies at appropriate sites to resolve data quality problems that are identified in this and previous studies,**
- **For any of these performance measures where the data quality is deemed to be sufficient to proceed, implement electronic data collection so that baseline data can be collected for FY 2002.**

Rationale: This indicator serves as part of a long-term effort to expand the IHS capacity to derive GPRA performance data directly from clinical automated information systems. This will allow IHS to add new performance measures in the most cost-effective way and without imposing additional data collection burdens on health care staff. It will also support other IHS management efforts – delivering high quality clinical care, managing programs, quality improvement, efficient and effective billing, monitoring epidemiological trends, performing clinical research, etc. This effort is on the cutting edge of medical informatics. To our knowledge, no other healthcare organization, public or private, has developed a large enterprise-wide system that has the capacity to report on a wide range of clinical measures from existing clinical information systems.

Approach:
The IHS's Resource and Patient Information System (RPMS) is a comprehensive information system that integrates clinical, administrative, and financial data in healthcare facilities. The Patient Care Component of the RPMS is an automated system for the collection, storage, and output of data gathered and recorded on a variety of forms or directly into the system at the point of patient contact in the outpatient, inpatient, and field visit settings. It has been implemented with a basic level of uniformity at over half of over 500 IHS, tribal, and urban facilities. Key challenges to our efforts to extract data for performance measures electronically are:
- We need to extract information from over 500 different sites, each with their own, at least somewhat unique, clinical information systems/repositories.
- There are no any widely accepted, uniform standards for how many critical classes of clinical information are coded or stored anywhere throughout the healthcare industry.

- Approximately half of our over 500 sites are independently administered and managed tribal or urban sites, not directly managed by IHS.

It is likely that the currently existing data repository architectures and quality in our clinical information systems will already allow us to extract several clinical measures electronically with sufficient accuracy in the short term. We are also certain that many other measures cannot yet be derived electronically with sufficient accuracy because of difficulties in compiling data across facilities due to lack of data standards, or problems with the accuracy and completeness of the data in those systems.

To analyze this issue, we are performing a complex study that compares electronically-derived with manual-chart-review-derived measures for five potential clinical measures at five diverse sites. The data collection phase of that study is nearly completed and we have begun to analyze the data. Early draft results and conclusions from that study should be available by winter of 2001 with the final results being completed by the summer of 2001.

Data from this and other studies have already identified problems with both the appropriate recording of data by service providers and the entry of those data by data entry staff. IHS has already begun to implement a pilot web-based training for local facility staff to improve both the recording and entry of data. This intervention includes an evaluation component that will allow us to assess its effectiveness. This pilot intervention will be fully implemented by the winter of 2001. Early draft conclusions about its effectiveness should be available by the winter of 2001, with final results available by summer 2002.

Through the influence of HIPAA legislation and other public and private efforts, more national and international, uniform data standards are being and will be developed. For example, LOINC standards for laboratory and other data are now uniformly accepted by most of the healthcare industry and are being implemented within IHS. The IHS LOINC implementation is a process that will likely be complete within a year (fall 2001) and most facilities, which use the IHS PCC laboratory package, will likely have implemented these standards within the following year (fall 2002). With this standardization, our ability to compile laboratory and other data across facilities will be dramatically improved, thus expanding the number of clinical measures we could potentially perform electronically.

Throughout this process, as we identify performance measures where the data quality and availability of standards is deemed to be sufficient to proceed, we will promptly implement electronic data collection.

Baseline: To be determined by this Indicator

Type of Indicator: Process and Balance Scorecard: innovation and learning perspective

Linkages: Ultimately this objective will support the automated collection of all other clinical measures and contribute to 3.6 *Improve the Health Status of American Indians and Alaska Natives*.

Program Performance: Not applicable because this was not a FY 2000 indicator.

Indicator 18: During FY 2002, increase the number of I/T/U programs utilizing the Mental Health/Social Services (MH/SS) data reporting system by 5% over the FY 2001 rate.

Rationale: The purpose of this indicator is to improve planning, implementation and evaluation of mental health, alcohol and substance abuse, and social services efforts across I/T/U programs. The implementation of the MH/SS data reporting system will provide the vehicle for collection of baseline morbidity, mortality, services and workload data for IHS. Audits of the existing I/T/U data systems have documented both under-reporting and lack of specificity of mental health related conditions reported and services provided. Thus, the continued implementation of this management information system tool will provide a plethora of baseline information that will enhance and complement national private and public outcomes monitoring efforts and allow consistent reporting, data aggregation for planning, managed care, and more effective billing and collection for services. This objective is also essential for monitoring many of the HP 2010 objectives addressing "Mental Health and Mental Disorders."

Approach: Accomplishment of this indicator is contingent on several factors. The implementation of the RPMS data system should be mandatory and a priority within the IHS service system. Responsibility for the maintenance of the data system will be shared by the MH/SS program and Division of Information Resources, to assure clinical, technical and administrative viability. The proposed implementation level of an addition 5 percent of I/T/U sites is based on the resources available to provide the incremental hardware and software upgrades, as well as staff training.

Data Source: MH/SS component of RPMS. Each year a survey with a preformatted spreadsheet is sent to all 12 I/T/U areas information system coordinators (ISCs) to complete and update as more programs come online with the MH/SS package. Also, the IHS Indian Health Performance Evaluation System (IHEPS) and ORYX project has built a SAS dataset to analyze data that is extracted to the national IHS data center.

Baseline: FY 2001 level available January 2002

Type of Indicator: Process and Balance Scorecard: innovation and learning perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 2.4 *Improve the Safety and Security of Children and Youth*, 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* This indicator also supports several HP 2010 objectives in Focus Area 18: Mental health and Mental Disorders.

Program Performance: The FY 2000 performance measure was to increase the percent of I/T/Us that have implemented the use of the MH/SS data reporting system by 10% over the FY 1999 level that was 51%. This measure was not achieved, with 115 of 227 I/T/U programs or 51% having implemented this system according to Area Information Systems Coordinators. The breakdown by type of program is 85% for IHS run programs, 35% for tribal programs, and 60% for Indian urban programs. Expanding the use of this system continues to be a crucial

component of the overall Behavioral Health efforts throughout the IHS, including tribal and urban programs.

A major setback in not achieving this goal is that a new version of the MH/SS MIS package, which combines relevant data items from the Chemical Dependency MIS and the MH/SS MIS was not tested and implement in FY 2000, as had originally been planned. In the I/T/U areas a Behavioral Health MIS, with the capacity to capture chemical dependency, mental health, and social services data would be accepted.

Plans to improve this indicator is to follow through on the testing and implementing of the new Behavioral Health MIS in FY 2001, with plans to fully implement this package in FY 2002. Expanding the use of this system continues to be a crucial component of the overall Behavioral Health efforts throughout the IHS, including tribal and urban programs.

> **Indicator 19: During FY 2002, increase by 10% the proportion of Urban Indian health care programs that have implemented mutually compatible automated information systems which capture health status and patient care data over the FY 2001 level.**

Rationale: The purpose of this indicator is to assure that Urban Indian Health programs develop automated health information systems that support local health program needs as well a provide data for the larger IHS requirements, including GPRA. Adequate health status and health services data are essential for the effective planning and management of any health care delivery system. Currently Urban Indian health programs capture data under the Urban Common Reporting Requirements (UCRR). These data are not currently compatible with other IHS health services data sets and only of limited use for the purpose of health systems management. Thus, the large urban AI/AN population has been minimally represented in AI/AN data sets.

Approach: A workgroup has been formed, comprised of Urban Programs health directors to review and revise the UCRR. The revised UCRR will capture an expanded set of data that are compatible with the IHS RPMS System, as well as provide local urban program managers better information about the health status and health services provided to their clients. Until a comprehensive needs assessment is completed it is difficult to estimate the resource requirements of this project; however, attempts will be made to, where feasible, avail the IHS RPMS system to urban programs so that systems are not duplicated. These indicators were developed to help monitor successful development of then updated urban data reporting system. The proposed implementation of a 10% increase is based on a schedule to provide the incremental hardware and software upgrades as well as urban program staff training.

Data Source: Self-report of Urban health programs.

Baseline: FY 2001 level available January 2002

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's*

Population and directly addresses the HP 2010 objective 23-4 (Public Health Infrastructure: data for select populations).

Program Performance: The FY 2000 performance measure was to assure that by the end of FY 2000 the Urban Indian Health Program would have field tested in at least one site, a mutually compatible automated information system that captures health status and patient care data. This was accomplished when the Seattle Indian Health Board successfully completed the field test of a mutually compatible automated information system. In addition, at least six programs within the California area have transmitted data electronically during FY 2000. Another major accomplishment of FY 2000 was the installation of local area networks within at least 20 Urban Program sites, thus creating connectivity between the agency and the individual urban programs. The connectivity provided for 100% compliance of reporting of the Urban Common Reporting Requirements transmitted electronically by each individual program.

Quality of Care Group:

The following two indicators address the quality of health care provided in IHS settings from both the perspective of accreditation and consumer satisfaction.

> **Indicator 20: During FY 2002, maintain 100% accreditation of all IHS hospitals and outpatient clinics.**

Rationale: The accreditation of IHS hospitals and clinics represents perhaps the most objective and respected measure of health care quality and thus the inclusion of this indicator is self-evident. In addition, accreditation is essential for maximizing third-party collections, and contributes directly and indirectly to many other indicators presented in this plan.

Approach: The local I/T/U multidisciplinary team approach to accreditation and ongoing quality management has been the mainstay of success in this important activity. Additional support and guidance from Areas and Headquarters staff will continue to support this indicator. This will be one of the most demanding indicators to meet given the growing clinical quality of care assessments that are required as well as issues related to health facilities maintenance, improvement, and renovation that are critical to accreditation. The accrediting body used for hospitals and some ambulatory health centers is the Joint Commission on the Accreditation of Health Care Organizations (JCAHO). However, there was an increase in the ambulatory health centers that obtained accreditation from the American Association of Ambulatory Health Centers (AAHC).

Data Source: IHS compiled database generated from accreditation reports submitted by IHS Area Quality Assurance coordinators.

Baseline: 100% accreditation of IHS hospitals and outpatient clinics for FY 1999 and FY 2000.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Goal 4, *Improve the Quality of Health Care and Human Services*, and Strategic Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives* and broadly supports several HP 2010 objectives in Focus Area 1: Access to Quality Health Services.

Program Performance: The FY 2000 indicator committed to maintaining 100% accreditation of all IHS hospitals and outpatient clinics. This indicator has been achieved. During FY 2000, eight IHS hospitals were evaluated by JCAHO and all eight maintained full accreditation with seven of the eight improving their score from their previous accreditation assessments and one hospital achieving the same score a their previous evaluation. In addition, 15 ambulatory health centers participated in accreditation visits from JCAHO and AAAHC and all were accredited, with five being accredited for the first time.

Indicator 21: During FY 2002, establish baseline health care consumer satisfaction levels for all IHS Areas using an approved instrument.

Rationale: The intent of this indicator is to improve consumer satisfaction. Assessing consumer satisfaction is fundamental to quality management, assuring improved customer satisfaction, and required for accreditation of hospitals and clinics.

Approach: In FY 1999 the IHS developed a comprehensive culturally sensitive consumer satisfaction survey instrument that was based on a tested and validated instrument from the private sector. In FY 2000 the instrument and data collection protocol were to have completed the Paperwork Reduction Act clearance process and to be used to identify baseline scores for IHS hospitals and clinics. However, the submission package was delayed in completion and will not reach OMB until mid FY 2001. With clearance not anticipated until late FY 2001, the baseline assessment will not be complete until FY 2002.

The responsible parties for implementation are the local I/T/U service sites with assistance from the IHS Area office staff. The local staff will be part of the local quality assurance program and the aggregate staff will be part of the IHS epidemiology centers/program.

Data Source: IHS Consumer Satisfaction Survey

Baseline: To be determined with initial FY 2002 survey

Type of Indicator: Process and Balance Scorecard: customer perspective

Linkages: These indicators support the DHHS Strategic Plan, Goal 4, *Improve the Quality of Health Care and Human Services*, and Strategic Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives.*

Program Performance: The FY 2000 indicator was to submit a pre-tested culturally sensitive consumer satisfaction instrument for clearance through the Paperwork Reduction Act process by the end of FY 2000 and secure a baseline assessment. The Indian Health Services has made limited progress the effort to develop and implement a patient satisfaction survey. The step to obtain full approval of the instrument moved forward after receiving no public comments from the 30 and 60-day Federal Registry Notices publications. An additional delay occurred with the process when the Agency clearance officer put a revision of the questionnaire forth for consideration. Questions on this issue are currently in the process of being resolved. The remaining component of the survey instrument to be completed is a revision of the instruction for use by the area liaison when the survey instrument is implemented.

Performance Summary Table 2:
Prevention Indicators

Performance Indicator	FY Targets	Actual Performance	Reference
Public Health Nursing Indicator			
Indicator 22: Increase the number of public health nursing services (primary and secondary treatment and preventive services) provided to infants and elders.	**Total Visits** **FY 02:** +2% over FY 01 **FY 01:** +3% over FY 00* **FY 00:** 7% over 97 or 363,033 **FY 99:** no indicator **Home Visits** **FY 02:** +2% over FY 01 **FY 01:** +3% over FY 00* **FY 00:** 7% over 97 or 127,846 **FY 99:** no indicator	**FY:02:** **FY 01:** **FY 00:** 371,548** (9.5 % over FY 97) **FY 99:** 336,134 **FY 97:** 339,283 baseline **FY 02:** **FY 01:** **FY 00:** 127,873** (7% over 97) **FY 99:** 111,836 **FY 97:** 119,482 baseline	**P:** p. 81 **B:** p. IHS-73 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 126-130. ** provisional data pending final verification
Immunization Group			
Indicator 23: Increase the proportion of AI/AN children who have completed all recommended immunizations by the age two.	**FY 02:** +1% over FY 01 level **FY 01:** +1% over FY 00 level* **FY 00:** +2% over FY 99 level **FY 99:** 91%	**FY 02:** **FY 01:** **FY 00:** 86% 12 of 12 Areas (-3%) **FY 99:** 89% 12of 12 Areas 87% 11of 12 Areas **FY 98:** 88% (baseline 11 of 12 Areas)	**P:** p. 83 **B:** p. IHS-27 p. IHS-85 p. IHS-73 p. IHS-81 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 123-130.
Indicator 24: Increase overall pneumococcal and influenza vaccination levels among diabetics and adults aged 65 years and older.	**Influenza** **FY 02:** +1% over FY 01 level **FY 01:** +1% over FY 00 level* **FY 00:** 65% **FY 99:** no indicator **Pneumococcal** **FY 02:** +1% over FY 01 level **FY 01:** secure electronic baseline* **FY 00:** 65% **FY 99:** no indicator	**FY 02:** **FY 01:** **FY 00:** 30.7% new electronic sample baseline **FY 98:** 63% baseline from diabetes audit **FY 02:** +1% over FY 01 level **FY 01:** **FY 00:** data source inadequate **FY 99:** **FY 98:** 63% baseline from diabetes audit	**P:** p. 84 **B:** p. IHS-27 p. IHS-85 p. IHS-73 p. IHS-81 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 126-130.

Performance Indicator	FY Targets	Actual Performance	Reference
Injury Prevention Group			
Indicastor 25: Expanding the number of tribes/tribal organizations with comprehensive injury prevention programs	**FY 02:** 30 sites **FY 01:** no indicator **FY 00:** no indicator	**FY 02:** **FY 01:** **FY 00:** baseline 25 sites	**P:** p. 86 **B:** p. IHF-39
Indicator 26: Reduce the number of unintentional injuries for AI/AN people.	**Hospitalizations** **FY 02:** 2% under FY 01 level **FY 01:** 70 per 10,000 **FY 00:** 71.5 per 10,000 **Deaths** **FY 99:** 93/100,000	**FY 02:** **FY 01:** **FY 00:** 05/01 **FY 98:** 72.5 /10,000 hosp. **FY 96:** 74.7/10,000 hosp. **FY 99:** 12/02 **FY 94-96:** 92.6/100,000 deaths **FY 92-94:** 95.0/100,000 deaths	**P:** p. 87 **B:** p. IHF-39 p. IHS-73 p. IHS-81
Suicide Prevention Indicator			
Indicator 27: Increase percentage of I/T/Us that have implemented a suicide surveillance system to monitor the incidence and prevalence rates of suicidal acts (ideation, attempts, and completions) which assures those at risk receive services, and that appropriate population-based prevention interventions are implemented.	**FY 02:** + 10% over FY 01 level **FY 01:** 50% of I/T/Us implem. **FY 00:** no indicator **FY 99:** no indicator	**FY 02:** **FY 01:** **FY 00:** 05/01 **FY 99:** **FY 98:** estimated 25%	**P:** p. 89 **B:** p. IHS-41
Pilot Prevention Group			
Indicator 28: Collaborate with NIH and AI/AN sites in developing and implementing culturally sensitive community-directed pilot cardiovascular disease prevention programs.	**FY 02:** 3 sites implementing interventions **FY 01:** 3 sites with intervention plan* **FY 00:** no indicator **FY 99:** no indicator	**FY 02:** **FY 01:**	**P:** p. 90 **B:** p. IHS-109 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 126-130.
Indicator 29: Maintain ongoing body mass index (BMI) assessments in AI/AN children 3-5 years old and/or 8-10 years old, for both intervention pilot sites and non-intervention comparison sites, as part of an overall assessment of the ongoing childhood obesity prevention project's effectiveness.	**FY 02:** continue implementation and access community acceptance **FY 01:** implement program and monitor pilots and comparisons sites **FY 00:** establish five pilot sites **FY 99:** develop approach and baselines	**FY 02:** **FY 01:** **FY 00:** pilot sites established **FY 99:** approach and baseline accomplished	**P:** p. 92 **B:** p. IHS-27 p. IHS-109 p. IHS-129 p. IHS-73 p. IHS-81

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 30: Develop at least five regional tobacco control centers to assist AI/AN health facilities and organizations with tobacco prevention and cessation activities.	**FY 02:** commence all prescribed control activities in 5 sites **FY 01:** establish five tobacco control centers **FY 00:** establish baseline rates for tobacco usage **FY 99:** no indicator	**FY 02:** **FY 01:** **FY 00:** baseline rates established	**P:** p. 94 **B:** p. IHS-27 p. IHS-109 p. IHS-141
HIV/AIDS Group			
Indicator 31: Maintain ongoing surveillance of HIV/AIDS and determine the level of completeness of reporting	**FY 02:** six Areas assessed **FY 01:** one Area assessed **FY 00:** establish baseline rates **FY 99:** no indicator	**FY 02:** **FY 01:** **FY 00:** partially established	**P:** p. 96 **B:** p. IHS-27 p. IHS-109 p. IHS-141
Indicator 32: Increase the percentage of high risk sexually active persons who know their HIV status and have received risk reduction counseling.	**FY 02:** +10% over baseline **FY 01:** Establish baseline **FY 00:** no indicator **FY 99:** no indicator	**FY 02:** **FY 01:** **FY 00:** no baseline	**P:** p.97 **B:** p. IHS-109 p. IHS-141
Environment Surveillance Indicator			
Indicator 33: Develop environmental health surveillance system. And complete community environmental assessments in AI/AN communities.	**FY 02:** +10% over FY 01 level **FY 01:** 15% of communities assessed* **FY 00:** develop surveillance protocol and plan **FY 99:** no indicator	**FY 02:** **FY 01:** **FY 00:** protocol and plan partially completed **FY 99:** no surveillance systems in place	**P:** p. 198 **B:** p. IHF-39 * indicates revised FY 2001 measure, see Summary of Changes Table on pages 126-130.
Total Prevention Funding :	**FY 02: $118,224,000** **FY 01:** $113,558,000 **FY 00:** $109,216,000 **FY 99:** $102,712,000 **FY 98:** $99,647,000		**P:** page # in perform. plan **B:** page # in budget justif.

B. FY 2002 Prevention Indicators:

Public Health Nursing Indicator:

Indicator 22: During FY 2002, increase by 2% the total number of public health nursing services (primary and secondary treatment and preventive services) provided to individuals in all settings and the total number of home visits over the FY 2001 workload levels.

Rationale: The purpose of this indicator is to improve the health status of AI/AN people through improved access to services associated with improved health outcomes. Public Health Nursing (PHN) is the integration of nursing practice and public health practice applied to the prevention of disease and the promotion and preservation of the health of Indian population. The nature of this practice is continuous and comprehensive, including all program areas and diagnostic groups. It includes primary and secondary treatment and preventive services, counseling, education, community development and referral follow-up. Many of the successes in Indian health such as decrease in infant mortality, high immunization rates, and increased prenatal care are attributed to the efforts of public health nursing.

The unique quality of PHN service is that care can be provided in any setting where the patient is accessible. This is especially effective for high-risk patients and families (e.g., substance abusing prenatal patients, communicable disease cases, families with dysfunctional life styles, etc.). Settings include homes, schools, jails, bars, and other community locations in addition to the health clinic. The ability to meet the patient in their own environment allows the PHN to fully assess socioeconomic and quality of life variables that affect health status and facilitates rapport with patients who often distrust the formal health care system.

Causes of health problems are multi-factorial and interventions must be multidimensional in order to be effective. Measuring the direct impact of public health nursing services can be accomplished in a variety of models. Many of the GPRA indicators (diabetes, prenatal care, immunizations, well child care, obesity) require a strong public health nursing contribution in order to be successful and to demonstrate evidence-based outcomes. The impact of home visiting with education and counseling services is more challenging to directly measure. Home visiting is generally accepted as a means to improve access to care and to impact on health status of individual patients, families and the community as a whole. Research ("Home Visitation and Maternal and Child Health – Kitzman et al, *Journal of the American Medical Association,* August 27, 1997 and "Enduring Effects of Nurse Home Visitation on Maternal Life Course – Kitzman et. al., *Journal of the American Medical Association,* April 19, 2000) supports this contention and concludes (after extensive controlled trials in which multiple outcome indicators were studied) that a "program of home visitation by nurses can reduce pregnancy-induced hypertension, childhood injuries, and subsequent pregnancies among low-income women". Other research (Long-term Effects of Nurse Home Visitation on Children's Criminal and Antisocial Behavior – Olds et.al., *Journal of the American Medical Association,* October 14, 1998) shows that adolescents born to women who received nurse visits during pregnancy and postnatally and who were unmarried and from households of low socioeconomic status (risks for antisocial behavior) reported fewer instances of running away, fewer arrests, fewer convictions and violations of probation, fewer cigarettes smoked, and fewer days of having consumed alcohol. Therefore, public health nursing workload, especially community based visits and home

visits, is used as measure of program effectiveness and an overall indicator of health status of the community.

Approach: The population base for public health nursing services is the IHS census population residing within the official boundaries of the Area. The PHN/RRM standard indicates that PHN program addresses the needs of the community and therefore the appropriate target population is census population. However in some service units, the user population is greater than the reported census population. In these cases, the Indian user population is used as an estimate of the service population to reflect PHN service to both stable community and transient populations.

Providing access to PHN services is directly dependent upon the availability of community-based resources, particularly recruiting and retaining PHN providers. Strategies for increasing access to care and marketing healthy life style behaviors includes targeting high-risk patients based on community epidemiological data. Newborns, infants, pregnant women, and elders are targeted high risk populations in Indian communities both from an individual perspective based on their high-risk status and from a psychosocial perspective based on their contributions to healthy family and community life.

Baseline: FY 2001 workload data will be verified using RPMS procedures described on page 121and analyzed to define the baseline for the objective. IHS nursing staff is currently working with data management staff to refine data collection and analysis processes which would allow workload breakdown by both age categories (newborn, infant, elder) and by diagnostic category (teen pregnancy, family planning, anticipatory guidance to parents, SIDS prevention, health promotion for the elderly wellness). This will provide a more in-depth perspective of the breadth of public health nursing services and the targeting of high-risk populations.

Data Sources: IHS PCC, IHS Program Statistics Team, and written reports submitted by Tribes using non RPMS systems.

Type of Indicator: Process/Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also broadly supports a multitude of HP 2010 objectives.

Program Performance: The FY 2000 performance indicator committed to increasing the total number of Public Health Nursing services and the number of home Public Health Nursing visits to the AI/AN population by 7% over the FY 1997 level. This indicator was met based on comparison of the FY 1997 and FY 2000 Public Health Nursing productivity reports. In FY 1997, the total Public Health Nursing visits were 339,283 and the home Public Health Nursing visits were 119,482. The FY 2000 Public Health Nursing report reflects that 371,548 total Public Health Nursing visits were provided (9.5% increase) and 127,873 home Public Health Nursing visits were provided (7% increase).

Immunization Group:

The following two indicators support immunization coverage in children and adults at high risk for preventable diseases and represent perhaps the most efficacious "impact" interventions known to public health.

Indicator 23: During FY 2002, increase the proportion of AI/AN children who have completed all recommended immunizations for ages 0-27 months as recommended by the Immunization Practices Advisory Committee (ACIP) of the U.S. Public Health Service by 1% over the FY 2001 level.

Rationale: The purpose of this indicator is to reduce the incidence of preventable diseases in children. Immunizations are one of the most cost-effective public health measures available for improving health outcomes in children and are a recognized standard of care and immunization rates are a recognized standard of public health. Thus, vaccination coverage rates are a sensitive measure of the status of public health services and are essential to the IHS Mission.

Approach: Percent of children vaccinated appropriately for age will be calculated for the IHS service population of children from each Area. Vaccines evaluated include polio (IPV),Diphtheria/Tetanus/Pertussis (DTaP), Measles/Mumps/Rubella (MMR), Haemophilus influenzae type b (HIB), Hepatitis B (HBV), and Hepatitis A (HAV). IHS continues to rely on a system of complete ascertainment. This system is supplemented by periodic statistically valid sampling to establish more reliable coverage estimates. IHS will be primarily responsible for completing the surveys.

Data Source: IHS patient care records and public health nursing records.

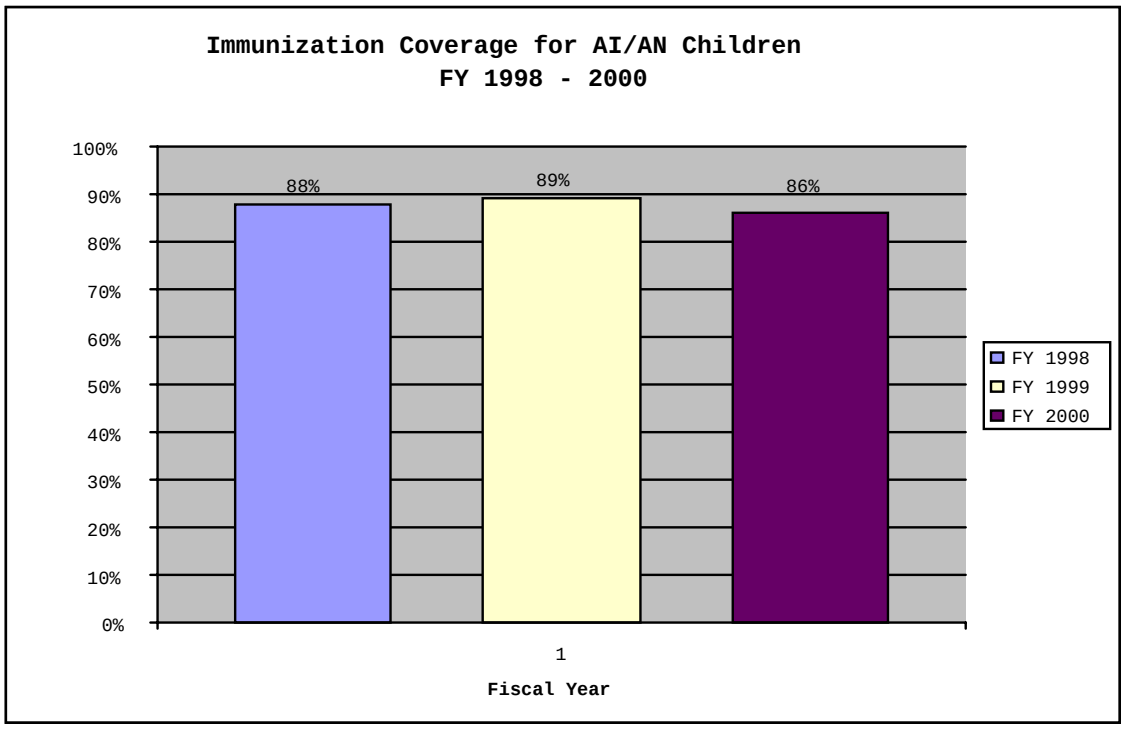
Baseline: 89% based all 12 Areas.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also directly addresses the HP 2010 objectives in Focus Area 14: Immunizations and Infectious Diseases.

Program Performance: The FY 2000 performance indicator was to increase by 2% over the FY 1999 rate the proportion of AI/AN children who have completed all recommended immunizations by the age of two. As the FY 1999 rate was 89% for all 12 Areas, the goal for FY 2000 was to achieve 91% coverage. Based on quarterly reports from all 12 IHS areas for FY 2000, the proportion of AI/AN children who completed all recommended immunizations by 27 months was 86%; the FY 2000 performance measure of 91% was not achieved.
Reasons for not meeting the FY 2000 performance indicator include:

- general problems with the infrastructure to deliver vaccines, such as vacancies in positions essential for the delivery, tracking and reporting of immunizations (i.e. public health nurses, medical records staff)
- reduced emphasis on immunizations in generalized primary care settings because of growing urgent care demands
- increasingly complex immunization schedules as new vaccines are added
- incomplete tracking due to the multiple sources of health care (many non-IHS)
- IHS immunization computer program not fully utilized at many local facilities



Steps taken to address challenges:

- IHS is addressing agency-wide recruitment and retention problems
- target funding toward improving immunization coverage levels.
- development of immunization information materials specific to AI/AN communities in order to educate parents on the importance and safety of new vaccines is on-going.
- eliminate barriers to effective utilization of IHS computer program for local tracking of immunizations.
- efforts to work with states to facilitate data exchanges with IHS facilities for the purpose of developing state-wide immunization registries and improve immunization tracking across health care facilities (both IHS and non-IHS) are underway.

Indicator 24: During FY 2002, increase pneumococcal and influenza vaccination levels among adults aged 65 years and older by 1% over the FY 2000 level.

Rationale: The purpose of this indicator is to reduce the incidence of vaccine-preventable diseases in adults and elders. Immunizations are one of the most cost-effective public health measures available for improving health outcomes. In addition, adult vaccination coverage rates are a sensitive measure of the status of clinical preventive services and are essential in supporting the IHS Director's elder health project. This indicator also directly supports the HP 2010 "Immunizations and Infectious Disease" objectives.

Approach: The IHS follows the recommendations of the Immunization Practices Advisory Committee (ACIP) of the U.S. Public Health Service. Recommendations for prevention and control of influenza change yearly depending on a number of factors such as global monitoring of influenza virus activity and experiences from the prior influenza season. In 2000, the age for universal adult influenza immunization was lowered from 65 years to 50 years of age. IHS has not implemented new programs aimed specifically at immunizing adults age 50 to 64 years,

therefore the current HP 2010 target of influenza vaccination for 90% of adults ≥65 years of age remains as the overall program goal. Recommendations for prevention and control of pneumococcal disease have not changed, although the minimum age for universal immunization of AI/AN includes all ages in many AI/AN communities. By FY 2002 pneumococcal conjugate vaccine (PCV7) may be recommended for adults. Until ACIP changes recommendations, however, IHS continues to focus on the most at-risk age groups for pneumococcal disease, including adults≥65 years of age. Implementation of ACIP recommendations is undertaken at the local level by clinicians, nurses, and public health nurses with guidance from Area Immunization Coordinators under direction of the IHS National Immunization Coordinator. Recent recommendations by ACIP suggest that standing orders programs that authorize nurses and pharmacists to administer vaccinations according to an institution- or physician-approved protocol without a physician's exam may improve adult immunization rates.

Data Source: The immunization rate for influenza was determined from a simple random sample of 5000 electronic medical records of all AI/AN over age 65 (N=80,454) from the NPIRS (National Patient Information Resource System). All records in the sample were scanned for any record of influenza immunization. This immunization coverage rate includes adult AI/AN who received their influenza vaccination only at an IHS facility. There is often no documentation of adult immunizations received in nontraditional settings such as churches and pharmacies. FY2000 was the first year that we have attempted to measure immunization rates among all adults; in previous years we have only determined rates in the population with diabetes. The FY1998 baseline immunization rate among adults with diabetes was 63% (data from the Annual Diabetes Care Audit). Because of their more intensive clinical monitoring and high-risk status, it is not appropriate to use the immunization rate among diabetics as a baseline for the rates in the general population. It is likely, however, that many AI/AN receive the flu shot from nontraditional sources outside the IHS medical record system.

Coverage rates for pneumococcal vaccination will require a different strategy given that current recommendations call for vaccination every five years in adults over 65 years of age. This year our focus was on developing and evaluating use of statistical sampling for a small subset of indicators. We are currently developing a technique to sample and evaluate adults for receipt of pneumococcal vaccination. Our plan is to include an evaluation of pneumococcal coverage in FY2002.

In addition to exploring ways to capture immunization information from non-IHS sources, we are conducting a manual chart review of a subset of this sample to verify and measure the validity of our electronic medical records in order to determine the suitability of this method for subsequent GPRA reports.

A recent review of adult immunization rates in Alaska showed that the rate determined by electronic records was 29%, the rate by manual chart review was 59%, and the rate by chart review plus phone call was 78%.

Baseline: FY2000 was the first year that we attempted to measure immunization rates among all adults using statistical sampling of the NPIRS database. FY2000 and 2001 will be used to establish a baseline measure once the methodology has been verified and validated.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 2.5 *Increasing Opportunities for Seniors to Have an Active and Health Aging Experience*, 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also directly addresses the HP 2010 objectives in Focus Area 14: Immunizations and Infectious Diseases.

Program Performance: The FY2000 performance indicator was to increase the overall pneumococcal and influenza vaccination levels among adults over 65 by 2% over the 1998 rate. As explained above, the FY 1998 baseline was not considered representative and a reliable baseline for comparison was not possible with our available systems during FY 1999. However, we have established a new electronic sample derived baseline for FY 2000:

- 30.7% of all AI/AN over 65 were vaccinated against influenza.

Pneumococcal immunization, which is only recommended once every 5 years, is more difficult to ascertain from IHS electronic medical records and we were not able to develop a baseline. Our approach for FY 2001 is to pilot and validate methods using influenza vaccination. Based on the outcome of these studies we will begin measuring pneumococcal vaccination rates to establish a baseline in FY 2001. In addition, because recommendations for receipt of these two vaccinations are subject to frequent change by ACIP, the indicator may be more appropriate if made in the form of a running three-year average of improvement toward the overall goal of 90% vaccination coverage.

Injury Prevention Group:

The following two indicators address the process and outcome of comprehensive community-based injury prevention efforts across I/T/U settings.

> **Indicator 25: During FY 2002, expand the number of tribes/tribal organizations that meet the criteria standards of IHS comprehensive injury prevention programs from the baseline of 25 tribes in FY 2000 to at least 30**.

Rationale: The purpose of this indictor is to reduce injury rates in the AI/AN population by the expansion of community based prevention technologies. Beginning in the early 1970s the IHS began a public health campaign to address this leading killer of AI/ANs. The early prevention efforts were based upon established Health Education/Health Behavior theories. Despite some success in raising awareness and some changes in human behavior, it was clear that a comprehensive public health approach would be needed to make a significant impact. The program began an aggressive injury surveillance effort in the early 1980s that created and empowered community coalitions and implemented evidenced-based strategies. The next and final step to this 30-year history in Indian Injury Prevention was the application of a community capacity building approach with the intent of developing the local public health capacity of tribes to significantly reduce injuries in their community's settings. This systematic process includes training, core-funding base, partnerships, implementing interventions, and technical assistance as needed.

These efforts have contributed to over a 50 percent reduction in unintentional injury related deaths between 1973 and 1993 and the expansion of the community capacity building approach is thus justified and represents the primary means to accomplish Indicator 26.

Approach: In FY 2000 IHS awarded approximately $1.25 million dollars to tribes to establish comprehensive injury prevention programs. This was part of the IHS Five Year Strategic Plan for Injury Prevention. These approximately 25 new programs will receive $50,000 per year for 5 years to hire a full time injury prevention coordinator, form an injury prevention advisory group, conduct basic injury surveillance, form partnerships, and begin to implement strategies to target those at risk for injuries, such as occupant protection, impaired driving, house fires, domestic violence, etc. Because technical assistance and support is so critical to new programs, IHS Area and District Injury Prevention Specialists will be engaged partners with these new tribal programs, and provide expertise in training, injury data collection, and evaluation. Experts in the field of community-based injury prevention will also be hired to provide technical assistance and support to all new tribal injury prevention programs.

Data Sources: Determining the implementation of comprehensive injury prevention programs will be determined from the use of a criteria-based survey of local I/T/U by each IHS Area Injury Prevention Specialist.

Baseline: 25 tribal programs in FY 2000 based on preliminary survey.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: These indicator supports the DHHS Strategic Plan, Strategic Objectives 1.2 *Reduce the Number and Impact of Injuries*, and 3.6 *Improve the Health Status of American Indians and Alaska Natives.* It also directly addresses the HP 2010 objectives in Focus Area 15: Injury and Violence Prevention that relate to unintentional injury prevention.

Program Performance: New indicator for FY 2002

Indicator 26: During FY 2002, reduce injury-related hospitalizations for AI/AN people by 2% over the FY 2001 level.

Rationale: Injuries are a leading cause of hospitalization for AI/AN people relative to morbid events. Annually, forty six percent (46%) of the Years of Potential Life Lost (YPLL) for AI/AN people are the result of injuries. Furthermore, injuries are the number one cause of mortality for AN/AN people for ages 1-44 years and second for overall death rates. The IHS spends more than $150,000,000 annually for the treatment of non-fatal injuries. The single largest expenditure of contract medical care funds is for the treatment of injuries. However, the systematic implementation of safety protocols through partnerships with tribes and outside agencies has demonstrated significant improvements in injury rates across AI/AN communities and will serve as models for further diffusion of these technologies.

Approach: The IHS has assigned a Principal Injury Prevention Consultant, in the Office of Public Health, at Headquarters who coordinates activities and resources with specially trained Injury Prevention Specialists at the Area, District, Service Unit and tribal levels. This program employs a community empowerment model based upon Dr. John Farquar's work at Stanford University (1985). Primary program emphasis is directed to building the capacity of tribes to recognize severe injury problems and employ evidence-based strategies to prevent or otherwise control injury outcomes. The Complete Injury Prevention Program model developed by IHS is the cornerstone of community-based intervention measures.

The IHS Five-Year Injury Prevention Strategic Plan identified the need for basic capacity building and investments in tribal and Federal infrastructures for the development of effective injury prevention programs. Since 1990, over $3.5 million has been appropriated to injury prevention programs and competitively based intervention projects. In 1997 the Director, IHS, supported a national demonstration grant announcement for basic public health infrastructure projects within tribes. Approximately $300,000 is awarded for the 13 tribal project sites. In addition to these projects, literally hundreds of Indian communities and Alaska Native villages are implementing proven injury prevention strategies associated with safe home and communities.

Most of the unintentional injury problem is related to motor vehicle crashes. Significant improvements can be made in these statistics with increases in use of occupant protection [safety belts and child safety seats], reducing pedestrian/motor vehicle collisions and reductions in alcohol-related injuries through multiple strategies including corrections in the physical environments, changes in tribal policies and health promotion/education. These injury measures are identified in the HP 2010 Objectives and are relatively easy to measure.

In FY 2000 IHS will be implementing a $1 million dollar cooperative agreement program with tribes to establish local injury prevention programs to address injuries. Other new projects are targeting childhood fire-related deaths through the *Sleep Safe* program in conjunction with Head Start schools, and continued work with our partners such as the Centers for Disease Control, the National Highway Traffic Safety Administration, the Maternal and Child Health Bureau at HRSA, and the US Fire Administration.

Data Source: In its original form from the FY 1999 performance plan, this indicator targeted injury mortality as the performance measure. However, due to the time lag of 2-3 years in the release of official injury mortality data from the National Center for Health Statistics (NCHS), IHS has determined that injury-related hospitalization rates are a more appropriate measure for the rate of unintentional injuries and will use this measure for the FY 2000 and FY 2001 indicators.

By using this approach the lag time in obtaining data can be shortened to less than one year as compared to the NCHS mortality data. In addition, these data include hospital discharges for IHS tribal and contract health care facilities and thus are considered inclusive. Finally, it is likely that the injury hospitalization rate may actually be more sensitive to the actual injury rates than mortality because improvements in emergency medical services could improve injury mortality without reducing the actual injury rate or morbidity.

Baseline: Estimated to be 72.5 per 10,000 in FY 1998 for AI/AN population on or near reservations.

Type of Indicator: Outcome and Balance Scorecard: internal perspective

Linkages: These indicators support the DHHS Strategic Plan, Strategic Objectives 1.2 *Reduce the Number and Impact of Injuries*, and 3.6 *Improve the Health Status of American Indians and Alaska Natives.* It also directly addresses the HP 2010 objectives in Focus Area 15: Injury and Violence Prevention that relate to unintentional injury prevention.

Program Performance: The FY 1999 measure for this indicator was to assure that the injury death rate was no greater than 93 per 100,000 deaths in the AI/AN population. While the data that is currently available is incomplete, it is highly likely that this measure has been met and possibly/probably exceeded. When the measure was initially set in FY 1998, the most recent rate available was 95 per 100,000 based on 1992-94 NCHS data. However, the FY 1994-96 data that became available last year showed that the rate had dropped to 92.6 per 100,000. Because of difficulties and delays in getting mortality data that we initially had hoped to overcome, we changed the indicator for FY 2000 and FY 2001, as described above, to focus on hospitalizations.

Regardless of how injuries are measured, the community-based joint partnership approach that has been used has proven successful, as injuries (unintentional and intentional) have dropped from the leading cause of death for Indian people of all ages in the early part of the decade to the 2nd leading cause of death currently (heart disease is now the leading cause for all ages). And while seven IHS Areas still have rates that are above the FY 1999 mortality target, most of these areas are in the rural west, such as the Navajo and Aberdeen Areas, where travel distances are long and residents are at high risk for motor vehicle-related injury. However, these Area rates have been trending downward over time, due to efforts in reducing pedestrian/motor vehicle crashes, tribes passing tougher drunk driving and occupant restraint laws, and stricter enforcement of these laws.

Suicide Prevention Indicator:

Indicator 27: During FY 2002, increase by 10% over the FY 2001 level, the proportion of I/T/Us that have implemented systematic suicide surveillance and referral systems which include:

a. monitoring the incidence and prevalence rates of suicidal acts (ideation, attempts, and completions)
b. assuring appropriate population-based prevention interventions are implemented and those identified at risk receive services

Rationale: This indicator is part of an expanding systematic effort at reducing the prevalence of suicide in the AI/AN population. The suicide death rate for the AI/AN population has actually increased in the 1990s and is currently 72% greater than the national average. This problem has been particularly devastating for a number of AI/AN communities that have experienced dramatic increases in adolescent suicides in recent years and represents one of the greatest tragedies the IHS must address. The implementation of local suicide surveillance and prevention projects has been successful in reducing suicide acts in several Indian communities. The obvious goal of diffusing intervention approaches and learning from successful programs to other AI/AN settings is to reduce suicide acts in the AI/AN population as quickly as possible.

Approach: The I/T/Us will be responsible for reporting the implementation of protocols via survey to be conducted by the Division of Clinical and Preventive Services, Office of Public Health. Resources for analysis may be required from other divisions within the Office of Public Health. A suicide surveillance and prevention system was developed in the Albuquerque IHS Area (National Suicide Prevention Project with the Center for Disease Control and Prevention). A suicide surveillance instrument that identifies potential high-risk individuals has been developed and is currently being used in clinics and case management systems have been

piloted. Numerous clinics, hospitals and behavioral health programs are currently using suicide surveillance protocols and now simply need to be identified and counted. A suicide surveillance and prevention system is being encouraged for use in I/T/Us to assure the routine suicide screenings and case management are tailored to the resources of each site. A baseline will be established via survey in 2000 and repeated in 2001.

Data Source: Local annual survey and database linked with RPMS as appropriate.

Baseline: To be determined in FY 2001, survey was inconsistent in FY 2000.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: These indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also directly supports several HP 2010 objectives in Focus Area 18: Mental Health and Mental Disorders which address the incidence of suicide.

Program Performance: No FY 1999 Indicator

Pilot Prevention Group:

The following three indicators represent demonstration efforts to test the application of prevention technologies in AI/AN communities and address community based cardiovascular disease prevention, childhood obesity control, and tobacco control. The successful strategies learned from these pilot projects will be then be diffused to other AI/AN setting in the future.

> **Indicator 28: During FY 2002, the IHS will continue collaboration with NIH to assist three AI/AN communities to implement culturally sensitive community-directed pilot cardiovascular disease prevention programs.**

Rationale: The purpose of this indicator is to collaborate with NIH and AI/AN communities in the development of community-directed culturally sensitive prevention programs to address cardiovascular disease and serve as models for diffusion to other AI/AN communities. Cardiovascular disease represents the single largest cause of death for AI/AN people above the age of 45. Furthermore, cardiovascular disease can be viewed as a complication of diabetes because of the much higher incidence of cardiovascular disease in diabetics. Within segments of the AI/AN population the prevalence of diabetes is the highest in the world while other segments with historically low diabetes rates are now experiencing dramatic increases. The diabetes death rate for AI/AN increased by almost 13 percent between the period of 1992-94 and 1994-96, and there is no evidence from any subgroup that the problem is lessening anywhere. A growing body of evidence supports that the approaches currently available to prevent the onset of heart disease and diabetes, and in some cases reverse their early stages, are the control of diet and exercise.

Over the past two years, the IHS has collaborated with the NIH National Heart, Lung, and Blood Institute and three AI/AN sites to assess their readiness to develop locally-directed cardiovascular disease prevention interventions that utilize community empowerment and other recognized models of behavioral change that can be tailored to be culturally appropriate.

Approach: The approach for this indicator is focused on collaborating to enhance long-term community commitment and capability in developing approaches to the prevention of cardiovascular disease at three AI/AN sites. This process will be mutually supported by IHS and NIH and will intentionally avoid a largely prescriptive approach from "outside experts" for program development but rather assist these communities in developing the capabilities internally to apply intervention technologies that are culturally tailored to these communities" social environment.

Clearly identifying approaches to the integration of diet control and exercise and fitness activities into the local culture can be best accomplished by the bringing together the knowledge of evidenced-based practices and theories (i.e., social learning theory, self-efficacy, etc.) with the knowledge of local culture, beliefs and practices. The FY 2001 target for this indicator is the collaborative development and community acceptance of the prevention plan. The FY 2002 target is the actual implementation of the each site's prevention program.

Potential interventions adopted are likely to vary considerably based on the tailoring process and support requested by sites but may include:

- organization-based fitness and diet control programs (worksites, churches)
- school- based fitness and diet control programs education programs for Head Start - high school and college
- social marketing of healthy practices through available media sources (radio, TV, newspapers, social events, the web)
- use of field public health staff to reach families in homes or other sites (e.g., public health nurses, health aides, health educators, dieticians and nutritionists)
- integration of traditional healing practices
- expanded clinic-based fitness and diet control intervention

While the evaluation must be linked to the nature of the interventions the potential levels of evaluation that are likely to be developed included:

Long term – death and disease rates
Intermediate – observed or reported changes in risk factors (behavioral changes)
Short term – observed or reported changes in knowledge or attitudes
Immediate – activity implementation and monitoring

Data Source: To be developed by local sites consistent with interventions

Baseline: No well-defined programs believed to be currently functioning

Type of Indicator: Impact and Balanced Scorecard: innovation and learning perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.3 *Improve the Diet and the Level of Physical Activity of Americans*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This objective is likely to support several HP 2010 objectives including many under section 12 (Cardiovascular Disease and Stroke), section 19 (Nutrition and Overweight), 5-7 (Diabetes: cardiovascular deaths), and Focus Area 22 (Physical Activity and Fitness)

Program Performance: No FY 1999 Indicator

> **Indicator 29: During FY 2002, maintain ongoing body mass index (BMI) assessments in AI/AN children 3-5 years old and/or 8-10 years old, for both intervention pilot sites and non-intervention comparison sites and evaluate community acceptance and participation in program interventions.**

Rationale: This indicator is part of a long-term effort to identify effective interventions to prevent childhood obesity. Obesity is prevalent among AI/AN people of all ages and is increasing significantly in a growing number of communities. Obesity is an important risk factor for cardiovascular disease and diabetes, which are perhaps the greatest single health problems for the AI/AN population. Unfortunately, success in reducing the prevalence of obesity and diabetes on a population basis has not been consistently documented. Evidence supports that children who are obese beyond infancy are at risk for elevated circulating serum insulin, which may be a precursor to the development of type 2 diabetes later in life.

Infant nutrition is emerging as another important factor in childhood obesity. Recently published studies of Pima Indians and also of Bavarian children show that breastfeeding for at least two months is associated with a statistically significant protection from obesity in early childhood. It has also been demonstrated that obese older children are more likely to become obese adults. Fitness promotion and obesity prevention in childhood are expected to be more effective at preventing adult obesity and its complications, including type 2 diabetes, than weight reduction programs for adults.

It is the intent of this objective to pilot a series of at least five multidisciplinary/ multidimensional community projects to address nutrition and fitness in early childhood. Ongoing periodic surveillance of school aged heights and weights will continue to monitor overweight prevalence in older children. Insights gained from the 6-year NIH-sponsored Pathways obesity prevention intervention in third, fourth, and fifth grade students, which began in FY 1997, will provide larger-scale interventions for school children. The recently released Surgeon General's Report on Physical Fitness outlines additional intervention strategies for reducing obesity. This objective directly supports the HP 2010 objectives addressing "Nutrition" and "Physical Activity and Fitness."

Approach: The responsible parties are the local I/T/U, Head Start, and WIC service sites. The IHS Area and USDA Regional offices can provide assistance in development and coordination of media campaigns. The IHS Office of Public Health is responsible for overall coordination of the effort. The linkages with the USDA-WIC program, the USDA, the DHHS Head Start Program, CDC Nutrition and Physical Activity Division, and the National Diabetes Prevention Center in Gallup, NM are critical. This objective is linked in part to Indicator 8, assurance of well child visits.

The strategies for success require effective multidisciplinary outreach and management of clinic and community programs, coordination of WIC, well child care, and education programs such as Head Start and Early Head Start. This activity is dependent upon parent education to assure they are aware of the importance of routine and periodic assessment of well children. Secondly, the effective identification of children in the intervention age groups is important. Public health nutrition, public health nursing, Community Health Representatives, WIC, Head Start programs,

and parent groups are important components in identifying children and families who are to benefit from this intervention.

Coordination of maternal and child health clinical care, community activities, and community involvement are also critical to prevent childhood obesity. Interventions will be piloted and evaluated initially at selected, interested demonstration sites, and then successful strategies and ideas will be disseminated to all programs. Evaluations of acceptance and participation must be tailored to each community and approved by health boards or other stakeholders groups. Clinical data will be collected through the IHS RPMS computerized health record system using the PCC BMI reports developed to measure prevalence of obesity in the clinic population. Coordination between the Pediatric Surveillance System managers at the CDC Nutrition and Physical Activity Division and the IHS Office of Public Health is critical for data access and analysis of the IHS Service Area data subset.

Data Source: CDC Pediatric Nutrition Surveillance System (PDNSS), IHS RPMS system, consumer surveys, focus groups, observational surveys, and rates of participation.

Baseline: Determined by FY 1999 indicator and reported below. Baseline for acceptance and participation will levels will be collected beginning in FY 2001 and continue in FY 2002.

Type of Indicator: Impact/Outcome and Balanced Scorecard: innovation and learning

Linkages: This indicator is part of a long-term effort to reduce childhood obesity and supports the the DHHS Strategic Plan, Strategic Objectives 1.3 *Improve the Diet and the Level of Physical Activity of Americans*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This objective also directly supports the HP 2010 objectives addressing Focus Area 22: Physical Activity and Fitness and Focus Area 19: Nutrition and Overweight and will require significant collaboration between IHS, CDC, WIC, and Head Start.

Program Performance: The FY 2000 indicator committed to developing at least five pilot sites to test multidisciplinary and multidimensional intervention strategies for reducing childhood obesity for Head Start population (3-5 year olds) and/or third grader children (8-10 year olds). This indicator was fully met in FY 2000 when five tribal Head Start programs were selected to pilot obesity prevention and intervention approaches in their respective communities. The IHS had collaborated with Head Start in developing a Head Start- IHS obesity prevention project entitled "Healthy Children, Healthy Families, Healthy Communities" that began in early 1999 with a "Future Search Conference" of stakeholders to begin planning the program with the broadest input. This program seeks to develop partnerships with AI/AN Head Start grantee programs, IHS and tribal health programs, and outside organizations.

The pilot sites selected from 18 applications are: Northern Cheyenne Head Start; Winnebago of Nebraska Head Start; Red Cliff Early Head Start and Head Start Program; Eastern Band of Cherokee Head Start; and San Felipe Pueblo Head Start. Each pilot site will tailor a multidisciplinary approach to test strategies to reduce the incidence of obesity with Head Start children (0-5 years old), their parents, Head Start staff and the tribal community at large. Each site is required to develop a community based project and strategic plan that includes an evaluation plan for ongoing monitoring of objectives and outcomes.

Current best practices and research are shared with the pilot sites through monthly conference calls, quarterly meetings and a web board. In addition, each site receives on site consultation to develop interventions and receives training and technical assistance at each quarterly meeting. Each pilot program will develop a tribal community plan that will include a nutrition, physical activity and behavioral health intervention. Specific activities and individual, family and community interventions are based on respective community need, health status and community assessments. For example, the Northern Cheyenne Head Start has engaged their local markets to allow staff to label healthy food in their store so tribal members are able to quickly identify healthy food choices for their families while shopping. This intervention was piloted in one store at the permission of the retailer. It was so popular, other vendors in the community requested assistance in establishing the same service.

Indicator 30: During FY 2002, five of the six tribal tobacco control organizations funded in FY2001 will accomplish all of the following:

a. train key personnel in tobacco control and prevention methods by IHS, CDC, and other appropriate organizations.

b. develop capacity to provide assistance to Tribes in their region for tobacco policy development, including developing and sharing model tribal policies for control of Environmental Tobacco Smoke, Youth Access, and Advertising.

c. initiate a process to assess tobacco use patterns among AI/AN youth in their region.

Rationale: Data from the BRFSS show that AI/AN both smoke and chew tobacco more than any other racial or ethnic group in the US. This is reflected in high rates of cancer and heart disease in Alaska and the Northern Plains, where smoking rates are highest. Furthermore, there is evidence that in the Southwest, where Indian smoking rates have been low, youth are smoking in increasing numbers. Considerable evidence supports that health promotion efforts that entail lifestyle change are more effective if initiated and performed by culturally competent individuals and community-based organizations. By supporting these tribal organizations with Cooperative Agreements, we hope to establish a tobacco control infrastructure that will be responsive to local needs and beliefs. IHS and CDC are collaborating to support these new tobacco control centers.

Approach: IHS Cancer Prevention and Control Program and CDC/Office on Smoking and Health will work together to provide technical assistance and training to the funded centers to ensure that they are able to perform the stated tasks.

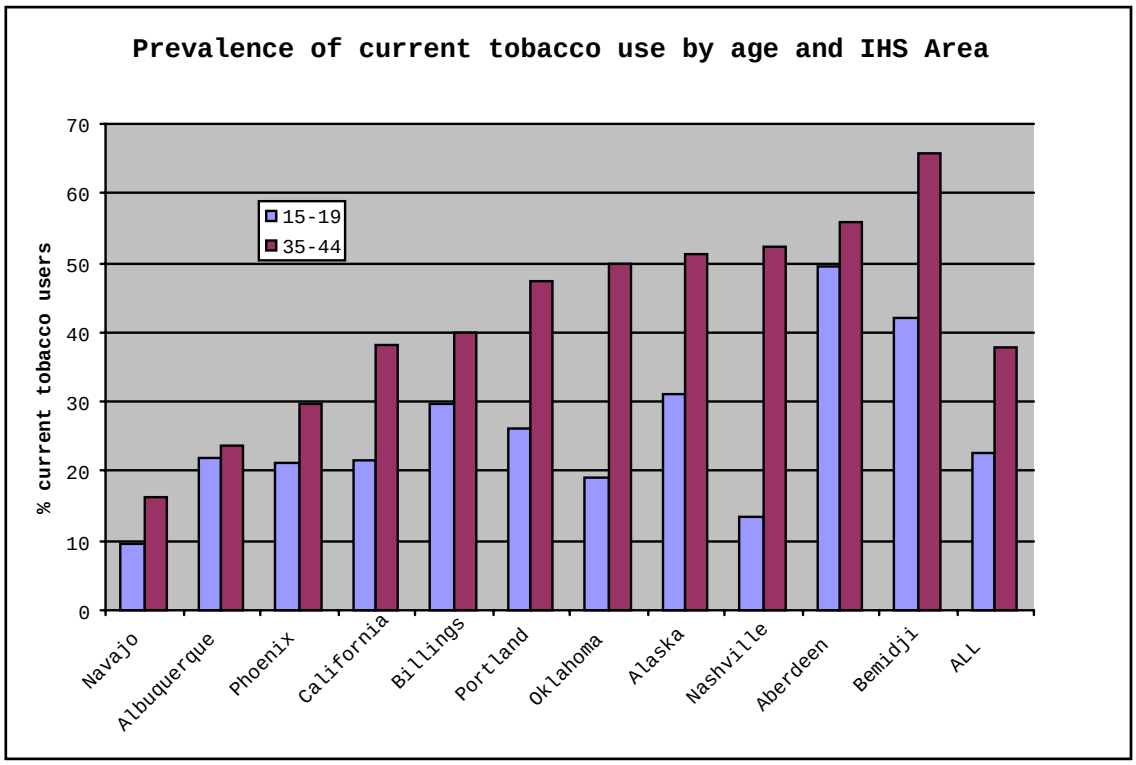
Data Source: Biannual reports submitted by the funded centers.

Baseline: Three of the six funded centers have been active in tobacco control for several years, but in a more limited scope. Those three have some trained staff; the new centers do not. Only one center has been active in Tribal tobacco policy in the past. Two centers have been active in assessment of youth smoking patterns.

Type of Indicator: Impact and Balanced Scorecard: innovation and learning

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.1 Reduce Tobacco Use, Especially among Youth; 3.6 Improve the Health Status of American Indians and Alaska Natives, and 5.1 Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population. It is supported by an IHS/CDC Agreement, and supports several HP 2010 objectives in Focus Area 27: Tobacco Use.

Program Performance: The FY 2000 tobacco indicator was to determine IHS Area and age-specific prevalence rates for the usage of tobacco products. In FY 2000, 22.6% of all 15-19 year olds and 37.8% of all 35-44 year olds identified themselves as current tobacco users (either smoking or smokeless). This was determined through the IHS Oral Health Survey, a questionnaire administered by dentists throughout the IHS system. There were over 2000 respondents in each age category. Breakdown by IHS Areas is shown in the following chart:



Adult Area tobacco use rates varied from 16.3% in Navajo Area to 65.6% in Bemidji Area. Youth tobacco use ranged from 9.5% to 49.4%. This is consistent with previously reported data that show low tobacco use rates in the Southwest and very high rates in the Northern Plains and Alaska.

An effective tobacco control strategy must include both clinical cessation programs and community-based prevention. At this time, the IHS Areas are attempting to identify existing resources to support the necessary staff and pharmaceuticals for such efforts. However, we are developing a network of community prevention programs in partnership with CDC Office on Smoking and Health.

HIV/AIDS Group:

The following two indicators address improving surveillance of HIV/AIDS and the implementation of risk reduction counseling with the long-term goal of reducing the spread of HIV infection in the AI/AN population.

Indicator 31: During FY 2002, maintain ongoing surveillance of HIV/AIDS and establish baselines for completeness of reporting in at least 6 additional Areas.

Rationale: The purpose of this indicator is to assure that accurate and complete data on the burden of HIV infection and AIDS among American Indians and Alaska Natives and are critically needed to plan for resource mobilization and allocation, and to guide and evaluate intervention programs to prevent HIV transmission. The Indian Health Service maintains service data that include HIV and AIDS diagnoses, and providers submit this information to the HIV/AIDS surveillance programs of the appropriate State Health Departments, from which they are then sent to CDC. A cumulative total of 742 HIV infections and 2,132 AIDS cases among AI/ANs had been reported to CDC as of December 31, 1999 (CDC. HIV/AIDS Surveillance Report, 1997 Year-End Edition, Vol. 9, No.2). Reported AIDS cases among AI/AN have increased 10% per year from 1997 to 1999 (CDC. HIV/AIDS Surveillance Report, 1999 Year-End Edition, Vol. 11, No.2).

Data analyzed for FY 2000 indicated that incompleteness of case reporting and misclassification of race/ethnicity contributed to underestimation of the burden of HIV and AIDS in AI/AN communities. Because FY 2000 data were found to not accurately describe the HIV/AIDS epidemic among American Indians and Alaska Natives, the FY 2001 indicator has been revised to reflect the need to increase the completeness of case reporting (see change table, Indicator 31 on page 130). The FY 2002 version is designed to measure the increasing ability to accurately track HIV/AIDS spread within the AI/AN population.

Approach: Completeness of surveillance data is to be evaluated by matching IHS RPMS data with HIV/AIDS surveillance data collected by State Health Departments/CDC. With adherence to standards for protection of confidentiality, records of persons diagnosed with HIV or AIDS will be abstracted from the RPMS data system and sent to the appropriate State Health Department for matching with the HIV/AIDS data system, to determine whether the cases have been reported.

Data Source: IHS RPMS; State and CDC HIV/AIDS Surveillance Systems

Baseline: To be determined in FY 2001

Type of Indicator: Process and Balanced Scorecard: innovation and learning

Linkages: This indicator is changed from FY 2001 and supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by IHS/CDC agreements, and supports several HP 2010 "HIV Infection" and "Surveillance and Data" objectives.

Program Performance: The FY 2000 performance indicator committed to determine prevalence rates of HIV/AIDS infection in American Indian/AlaskaNatives at Indian Health Service treatment facilities and obtain infection rate nationally from Centers for Disease Control. This measure was partially met. Prevalence rates of HIV/AIDS infection in American Indian/Alaska Natives at Indian Health Service treatment facilities were not obtainable given the existing data infrastructure, as laboratory codes for HIV testing and testing HIV positive have not yet been standardized. To address this, a procedure is being developed for extraction of data

from key IHS Resource Patient Management System data files and mapping to a standard set of codes, so that data aggregation is possible in the future. However, until a generalizable procedure is developed, this project is proceeding on a facility-by-facility basis (as each facility has some codes that are unique).

The Centers for Disease Control and Prevention reported an AIDS rate of 9.7 per 100,000 for American Indians and Alaska Natives for the year 2000. However, some preliminary investigation has indicated that there may be substantial underreporting because many American Indians/Alaska Natives are listed as being of another race in the surveillance data. To address this issue, several projects are underway to quantify the degree of misclassification by race. It may be possible to use the results from these projects to apply a racial misclassificaton correction factor to these surveillance data.

Note, this is a new FY 2002 and FY 2001 Indicator

Indicator 32: During FY 2002, increase the percentage of high risk sexually active persons who have been tested for HIV and received risk reduction counseling at least 10% above the baseline established in FY 2001.

Indicator 32: During FY 2001, obtain a baseline measure of the percentage of high-risk sexually active persons who have been tested for HIV and received risk reduction counseling, from a sample of IHS facilities.

Rationale: The purpose of this indicator is to reduce the spread of HIV infection in AI/AN communities. The benefits of early knowledge of HIV serostatus are greater now than at any time during the epidemic. For HIV-infected persons, highly active antiretroviral therapy has improved dramatically the quality and duration of life and may reduce the risk for transmission by decreasing viral load (Palella FJ, Delaney KM, Moorman AC. Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. N Engl J Med 1998;338:853--60; .Gupta P, Mellors J, Kingsley L, et al. High viral load in semen of human immunodeficiency virus type 1infected men at all stages of disease and its reduction by therapy with protease and nonnucleoside reverse transcriptase inhibitors. J Virol 1997;71:6271--5; Vernazza PL, Gilliam BL, Flepp M, et al. Effect of antiviral treatment on shedding of HIV-1 in semen. AIDS1997;11:1249--54.). Reduced HIV transmission also can occur because many infected persons may reduce sexual risk behavior after HIV-infection diagnosis (Denning P, Nakashima A, Wortley P, the SHAS Project Group. High-risk sexual behaviors among HIV-infected adolescents and young adults [Abstract]. In: Program and Abstracts of the 6th Conference on Retroviruses and Opportunistic Infections. Chicago, Illinois: Foundation for Retrovirology and Human Health, 1999.). In addition, monitoring the burden of HIV/AIDS among American Indians and Alaska Natives depends ultimately on the diagnosis of infections through testing of high-risk individuals. Therefore, to support prevention efforts and to improve monitoring of the spread of HIV/AIDS, the Indian Health Service is working to increase availability and access to voluntary and confidential HIV diagnostic testing by constituents who do not know their HIV status, link them to care and prevention services, and assist them in adhering to treatment regimens and in sustaining risk reduction behavior. The percentage of high-risk persons who have received an HIV test is thus a critical indicator, and was added as a new indicator for FY 2001 to establish a baseline with the FY 2002 version designed to measure the expansion of HIV testing and counseling.

Approach: A baseline will be established in FY 2001 through implementation of a web-based surveillance enhancement software in selected IHS facilities. This software will query the RPMS system to determine the percentage of STD patients tested for HIV in IHS facilities. The web-based system will be used again in FY 2002 and the results compared with the FY 2001 baseline measure.

Data Source: ID Web, a web-based surveillance enhancement software.

Baseline: To be determined in FY 2001

Type of Indicator: Impact/Outcome and Balanced Scorecard: innovation and learning

Linkages: This indicator is changed from FY 2001 and supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by IHS/CDC agreements, and supports several HP 2000 "HIV Infection" and "Surveillance and Data" objectives.

Program Performance: No FY 2000 indicator

Environmental Surveillance Indicator:

Indicator 33: During FY 2002, the IHS will increase the proportion of American Indian and Alaska Native communities assessed by the environmental health surveillance system by 10% over the FY 2001 level.

Rationale: This indicator is directed at reducing environment threats to health by expanding community information for decision making. Community environmental health status has traditionally been determined by completing environmental health surveys of individual facilities listed on the Facility Data System (FDS) inventory. However the overall environmental health status of a community is more than a simple sum of inter-related parts. An accurate determination of a community's environmental health status must be based on a comprehensive analysis of how those parts collectively affect the overall environmental health and quality of life of the residents of the community. Overall community environmental health status will be continuously assessed through the use of the environmental health surveillance system that will be developed during FY 2000. However to effectively measure improvement in the environmental health status of a community, baseline environmental health status must be determined by conducting initial comprehensive community environmental health assessments.

Approach: The Environmental Health Services program will work with the National Center for Environmental Health (NCEH), the National Association of City and County Health Officials (NACCHO), and Tribal partners to establish a surveillance protocol and implementation during FY 2000. This protocol will be employed in conducting the initial community assessment and for ongoing surveillance. At the regional level, this project will be coordinated with the IHS Area Environmental Health Officers in partnership with the tribes and local IHS environmental health services programs.

The collection, organization, and implementation of environmental health and epidemiological data may redesign the services and activities currently provided by and recommended by the

Environmental Health Services program. We are not certain that the assumptions used to build the current system are still valid (FDS vs. risk-based decision making). Data analysis is necessary to establish baseline levels of community environmental health, evaluate the effectiveness of existing programs and to plan future programs to insure that resources and activities are best targeted to most effectively reduce environmentally related disease and injury at the local level.

Data Source: IHS Environmental Health Surveillance System developed in FY 2000.

Baseline: To be established by the end of FY 2001.

Type of Indicator: Process and Balanced Scorecard: internal perspective

Linkages: This indicator is an extension of FY 2000 Indicator 26. It supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 5.1 *Improve Public Health Systems Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It also broadly supports many of the HP 2010 objectives in Focus Area 8: Environmental Health.

Program Performance: For FY 2000 this indicator committed to developing the protocol and implementation plan for an environmental health surveillance system to provide the information needed to identify environmental health issues, establish local and regional priorities, and develop and evaluate environmental interventions and programs. This indicator was partially met during FY 2000 with the following actions being completed:

- An IHS/Tribal Community Assessment Workgroup was established. The Workgroup held one conference call to discuss the goals of the community assessment process and organize itself to work toward achieving those goals.
- Consultation meetings were held in Denver and Albuquerque to solicit input from tribal and community leaders regarding their perspective of community environmental health needs.
- IHS received input from the National Center for Environmental Health and the National Association of City and County Health Officials regarding existing community assessment protocols that were forwarded to the Community Assessment Workgroup.
- Draft protocols were field tested in tribal communities in the Bemidji, Phoenix, and Tucson Areas.

The following factors were responsible for the Agency's failure to completely meet this indicator:

- The responsibilities for coordinating activities under this indicator were assigned to the Deputy Director, Division of Environmental Health Services (DEHS). This individual transferred out of the Agency in November of 1999 and was not replaced until November of 2000. At the same time, one additional senior staff member was detailed to the Office of Public Health and not replaced until November of 2000. As a result of these temporary staff reductions there simply wasn't enough staff time available to complete the identified activities.
- The process of soliciting input from tribal and community leaders proved to be more time consuming than originally estimated.

Recent additions to the DEHS will relieve the staffing shortages that were experienced during FY 2000, and we are confident that the protocol will be completed and field implementation begin during this fiscal year.