APPENDIX TO THE IHS 2001 PERFORMANCE PLAN

A.1 Approach to Performance Measurement

Data Verification and Validation

The IHS utilizes outside (non-IHS) and IHS data sources to manage its diverse programs and assess Indian health status. The two principal outside data sources are the Bureau of the Census and the Centers for Disease Control and Prevention, in particular, the National Center for Health Statistics (NCHS). The Census Bureau is the source of Indian population counts and social and economic data. However, reliable Indian census data at the county level are only available from the Decennial Census, once every 10 years. The IHS prepares AI/AN population estimates for years between the Census.

The NCHS provides IHS with natality and mortality files that contain all births and deaths for USA residents, including those identified as American Indian or Alaska Native. The NCHS obtains birth and death records from the State departments of health, based on information reported on official State birth and death certificates. The IHS receives these records with essentially the same basic demographic information as the records maintained by NCHS, but with names, addresses, and record identification numbers deleted as required by the Privacy Act. It should also be noted that tribal identity is not recorded in these records by the States. The State of New Mexico does identify tribal affiliation for 23 indigenous tribes of that state. However, the IHS does not obtain this tribal identification from the automated records provided by NCHS. The data are subject to the degree of accuracy of reporting by the States to NCHS. The NCHS does perform numerous edit checks and imputes values for non-responses. The IHS assigns IHS organizational (Area and service unit) identifiers to the birth and death records in setting up its Indian database. The IHS computer routines for accomplishing this have been thoroughly verified, and the results are continuously monitored.

Several studies have shown considerable miscoding of Indian race on State death certificates, understating Indian mortality especially in areas not associated with Indian reservations. The IHS now utilizes factors based on a National Death Index study to adjust Indian mortality rates for race miscoding. Another major problem with mortality data is the time lag in receiving data. These data are not typically available from NCHS until two years after the events occur, and mortality data are often slow in showing the impact of health interventions. Due to these constraints, IHS has chosen not to use mortality data for annual performance plan indicators except in special circumstances. The IHS will continue to use mortality data for tracking long-term trends in Indian health status and to make comparisons with other population groups. However, having to wait two years to link activities in an annual performance plan with mortality findings is of limited value in the ongoing implementation and evaluation process. The IHS would like to see greater emphasis on long-term strategic planning in the future, which could more effectively link the GPRA and HP 2010 process and depend, to considerable extent, on mortality data.

IHS Automated Data Systems

The IHS has its own program information systems to collect data on the services provided by IHS and tribal direct and contract programs. 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. These data are subject to recording, inputting, and transmission errors. However, IHS software systems have extensive edits built in at the facility and central database levels to detect and correct a large part of the errors. Others that cannot be detected by computer are often discovered through the monitoring for reasonableness that is performed in the field and IHS Headquarters.

Each facility that utilizes PCC has a facility-level database that contains the detailed PCC data collected at that site. A subset of the detailed PCC data (to meet the routine information needs of IHS Headquarters) is transmitted to the IHS central database. The PCC data are the source of most of IHS' GPRA measures since they reflect prevention activities and morbidity and do not have the time lags described previously for mortality data. However, many of IHS' proposed measures rely on detailed PCC data not currently transmitted to the IHS central database.

The IHS is developing software to transmit some of these needed data items to the central database. In the meantime, IHS will need to use sampling routines to collect the required data from the individual facility-level databases. A stratified sampling approach will be used to include different types and sizes of facilities and Indian populations with different health characteristics. In some cases, the required data for a measure may not be part of PCC or, if it is, may not be coded at some facilities. Local surveys may need to be utilized in these areas to capture the required data. Standard survey questionnaires and procedures will be used whenever possible. The degree to which these activities will be achieved depends on the available infrastructure to address these demands in the face of the many competing priorities.

IHS Diabetes Audit

A final important data set that underpins the diabetes treatment indicators 2-5 is the IHS Diabetes Audit. Since 1986 a yearly medical record review to assess diabetes care has been conducted in more than 75% of the IHS and tribal facilities, representing care to nearly 70,000 AI/AN people with diabetes. Staff at participating facilities are encouraged to maintain active diabetes registries using uniform definitions. Each registry is maintained in the IHS computerized medical record system and includes information about individuals with diagnosed diabetes who have been seen at least once in the past three years. Each year a systematic random sample is drawn from each facility's registry, using a sample size sufficient to provide estimates of $\pm$10% of the true rates of adherence for that facility with a confidence of >90%.

The medical record review measures selected clinical interventions, performance measures, and intermediate outcomes using the uniform set of definitions. Chart reviews are conducted by the Area diabetes consultants and other professional staff trained by them in accordance with written instructions and definitions provided by the IHS Diabetes Program. The abstracted data are entered into a microcomputer-based epidemiologic software program. Summary reports are printed for immediate use by facility staff in their quality improvement and program planning

activities. Regional and national rates are constructed for each item of the medical record review after data are aggregated from all participating sites.

During the period 1995-1997, 150 sites submitted data to be compiled for the IHS total. Indian health facilities and tribally contracted facilities that do not provide direct patient services did not participate in the audit. Participation from each of the 12 IHS administrative regions varied by year and by federal or tribal management. All regions were represented in each year and approximately 2/3 of all the facilities contributed data in a given year. Tests of trend over the 3-year period were performed by the Mantel-Hanzel test except as noted in the text.

A.2 Changes and Improvements

The IHS FY 2000 Performance Plan and its 34 performance indicators have been revised based on updates in baselines and other data related issues that have been identified as part of implementing the FY 1999 plan. In addition, targets have been adjusted for certain treatment and infrastructure related indicators based on the actual FY 2000 IHS appropriation which was lower than the President's proposed IHS budget for FY 2000 in several categories.

The IHS FY 2001 Performance Plan include a management-related indicator for increasing the number of cost-saving contracts with vendors who provide services through the Contract Health Services mechanism and indicators to track suicide attempts and assure appropriate referrals for people at risk. In addition, the IHS is negotiating with CDC regarding collaboration on a pilot exercise/fitness initiative and performance indicator to support health promotion/disease prevention for obesity, diabetes, and heart diseases.

FY 1999 Performance Reporting

IHS has report on 20 of its 27 (74%) FY 1999 performance measures in the FY 1999 performance report included in this document. Data will be available on the remaining indicators by August of 2000, with the exception of Indicator 22 that will not be until December of 2002.

Revision to FY 2000 Performance Plan

The iterative process of developing the FY 1999-FY 2001 performance plans has required the IHS to audit many different data sets to assess current access to health services (coverage) and baseline rates of various conditions. During this process it has become increasingly clear that the continued diversion of available resources toward maintaining patient care in response to continued funding shortfalls has resulted in continued loss of the public health infrastructure that support data collection and analyses. Data sets that were previously well enumerated and maintained are now incomplete or under analyzed.

In light of these findings, the IHS has revised several indicators for FY 2000 to assure more reliable, timely and valid performance data. Furthermore, analyses of recent workload data have revealed continued declines in access to some services. Based on these trends and Congressional committee marks for the IHS FY 2000 budget below the President's request, we have reduced the target levels of a few indicators to reflect more realistic probabilities of accomplishment for FY 2000. The table that follows summarizes the significant changes in content or magnitude to FY 2000 indicators submitted with the FY 2000 budget.

Summary of Changes to the FY 2000 IHS Performance Indicators

Original FY 2000 Indicator	Revised FY 2000 Indicator	Rationale for Change
Indicator 2: By the end of FY 2000, increase by 3% the proportion of I/T/U clients with diagnosed diabetes who have improved their glycemic control over the FY 1999 level.	**Indicator 2:** Reduce diabetic complications by demonstrating a continued trend in improved glycemic control in the proportion of I/T/U clients with diagnosed diabetes in FY 2000.	It has been determined that three year running trend data (i.e., add the most recent year of data and drop the oldest year of data) is a more reliable for an ongoing measure.
Indicator 3: By the end of FY 2000, increase by 3% the proportion of I/T/U clients with diagnosed diabetes and hypertension who have achieved blood pressure control standards over the FY 1999 level.	**Indicator 3:** Reduce diabetic complications by demonstrating a continued trend in improved blood pressure control in the proportion of I/T/U clients with diagnosed diabetes and hypertension who have achieved blood pressure control standards in FY 2001.	It has been determined that three year running trend data (i.e., add the most recent year of data and drop the oldest year of data) is a more reliable for an ongoing measure.
Indicator 4: By the end of FY 2000, increase by 3% the proportion of I/T/U clients with diagnosed diabetes who have been assessed for dyslipidemia over the FY 1999 level.	**Indicator 4:** Reduce diabetic complications by demonstrating a continued trend of improvement in assessing the proportion of I/T/U clients with diagnosed diabetes for dyslipidemia (i. e., cholesterol and triglyceride) in FY 2000.	It has been determined that three year running trend data (i.e., add the most recent year of data and drop the oldest year of data) is a more reliable for an ongoing measure.
Indicator 5: By the end of FY 2000, increase by 3% the proportion of I/T/U clients with diagnosed diabetes who have been assessed for nephropathy over the FY 1999 level.	**Indicator 5:** Reduce diabetic complications by demonstrating a continued trend of improvement in the proportion of I/T/U clients with diagnosed diabetes who have been assessed for nephropathy in FY 2000.	It has been determined that three year running trend data (i.e., add the most recent year of data and drop the oldest year of data) is a more reliable for an ongoing measure.
Indicator 6: By the end of FY 2000, increase the proportion of women who have annual Pap screening to 55%.	**Indicator 6:** By the end of FY 2000, increase the proportion of women who have annual Pap screening by 3% over the FY 1999 baseline.	Performance level adjusted based in FY 2000 appropriation and need to establish new baseline independent of the diabetes audit formerly used.
Indicator 7: By the end of FY2000, assure that at least 30% of the AI/AN female population 50-69 years of age have had screening mammography during the previous year.	**Indicator 7:** By the end of FY2000, assure that at least 30% of the AI/AN female population 40 years of age and older have had screening mammography during the previous year.	The CDC has changed its recommended age range for regular mammography from women 50 and older to women 40 and older.
Indicator 13: By the end of FY 2000, assure that the percentage of AI/AN children 6-8 and 14-15 years who have received protective dental sealants on permanent molar teeth is increased by 5% over the FY 1998 GPRA Dental Pilot Dental Project. level.	**Indicator 13:** By the end of FY 2000, assure that the percentage of AI/AN 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 rate.	Performance level adjusted based in FY 2000 appropriation. The baseline has been changed to allow comparison with the more accurate 1999 Oral Health Survey findings.

Original FY 2000 Indicator	Revised FY 2000 Indicator	Rationale for Change
Indicator 16: By the end of FY 2000, at least 25% of the Urban Indian health care programs will have implemented mutually compatible automated information systems which captures health status and patient care data.	**Indicator 16:** By the end of FY 2000, the Urban Indian health care programs will have field tested in at least one site, a mutually compatible automated information systems which captures health status and patient care data.	Performance level adjusted based in FY 2000 appropriation.
Indicator 18: By the end of FY 2000, implement the OMB approved IHS-wide consumer satisfaction survey protocol and determine baseline level of satisfaction with the acceptability and accessibility of health care.	**Indicator 18:** By the end of FY 2000, obtain OMB clearance for IHS-wide consumer satisfaction survey and protocol and determine baseline level of satisfaction with the acceptability and accessibility of health care.	Submission for OMB clearance was delayed in FY 1999, but it is anticipated that it will occur in time to achieve baseline levels for FY 2000.
Indicator 19: Assure that by the end of FY 2000, 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 are increased by 15% over the FY 1997 workload baselines.	**Indicator 19:** Assure that by the end of FY 2000, 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 are increased by 7% over the FY 1997 workload baselines.	Performance level adjusted based in FY 2000 appropriation.
Indicator 20: During FY 2000, increase by 3% the proportion of AI/AN children who have completed all recommended immunizations by the age two over the FY 1999 rate.	**Indicator 20:** During FY 2000, increase by 2% the proportion of AI/AN children who have completed all recommended immunizations by the age two over the FY 1999 rate.	Performance level adjusted based in FY 2000 appropriation.
Indicator 21: By the end of FY 2000, increase by 3% overall pneumococcal and influenza vaccination levels among adults aged 65 years and older to 60%.	**Indicator 21:** By the end of FY 2000, increase by 2% the overall pneumococcal and influenza vaccination levels among adults aged 65 years and older over the FY 1998 rate.	Performance level adjusted based in FY 2000 appropriation.
Indicator 22: By the end of FY 2000, reduce deaths by unintentional injuries for AI/AN people to no more than 90 per 100,000 people.	**Indicator 22:** By the end of FY 2000, reduce injury-related hospital discharges for AI/AN people to no more than 71.5 per 10,000 people.	Injury mortality data have been difficult to secure in reasonable timeframes. The rate of hospitalization for injuries is probably a better proxy for actual injury rate and is available directly through IHS data sets.

Original FY 2000 Indicator	Revised FY 2000 Indicator	Rationale for Change
Indicator 28: By the end of FY 2000, develop and implement 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.	**Indicator 28:** By the end of FY 2000, develop 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.	Performance level adjusted based in FY 2000 appropriation.
Indicator 29: By the end of FY 2000, IHS will reduce 1998 Backlog of Essential Maintenance, Alteration, and Repair (BEMAR) by 6%.	**Indicator 29:** By the end of FY 2000, IHS will IHS will have completed an evaluation of the current $445,759,000 listing of the Backlog of Essential Maintenance, Alteration, and Repair (BEMAR) and addressed $12 million of the FY 1999 BEMAR listing.	Performance level adjusted based in FY 2000 appropriation.
Indicator 30: By the end of FY 2000, provide sanitation facilities projects to serve 5,900 new or like-new homes and 9,930 existing Indian homes.	**Indicator 30:** By the end of FY 2000, provide sanitation facilities projects to serve 3,740 new or like-new homes and 11,035 existing Indian homes.	Performance level adjusted based in FY 2000 appropriation.
Indicator 31: Improve critically needed access to health care services by continuing construction of the Ft. Defiance, Arizona Hospital and the Parker, Arizona Health Center; completing the designs of facilities at Red Mesa, Arizona and Pawnee, Oklahoma; and providing new or replacement dental units by the end of FY 2000.	**Indicator 31:** Improve access to health care by continuing construction of the replacement hospital in Fort Defiance, Arizona; starting construction of the replacement hospital in Winnebago, Nebraska; continuing construction of the replacement health center in Parker, Arizona; designing the new health center in Red Mesa, Arizona; designing and starting construction of the staff quarters to support the hospital in Zuni, New Mexico; and continuing the design and construction of dental units.	Performance level adjusted based in FY 2000 appropriation.
Indicator 32: By the end of FY 2000, the IHS will have improved the level of consultation and opportunities for participation for its I/T/U partners as demonstrated by a 5% increase in score over the FY 1999 satisfaction survey.	**Indicator 32:** During FY 2000, the IHS will work with I/T/U stakeholders to revise the consultation process and develop an appropriate survey instrument and protocol to assess I/T/U satisfaction with the IHS consultation process.	Stakeholder interest in revising the IHS consultation policy and including guidance for the implementation process resulted in a delay of using the instrument developed in FY 1999 to collect baseline rates. Thus for FY 2000 the instrument will be revised in concert with the revisions to the consultation process. In addition, the survey will be submitted to OMB for clearance to allow the IHS to support the process.

Original FY 2000 Indicator	Revised FY 2000 Indicator	Rationale for Change
Indicator 34: During FY 2000, the IHS Headquarters and Areas will maintain full compliance with major Federal requirements (i.e., GPRA, GMRA, ITMRA, etc.), without expanding the administrative staff above the FY 1998 FTE level.	**Indicator 34:** During FY 2000, the IHS Headquarters and Areas will maintain full compliance with major Federal requirements (i.e., GPRA, GMRA, ITMRA, etc.), without expanding the administrative staff above the FY 1999 FTE target level of 10% below the FY 1997 level.	The reduction in FTEs that occurred in FY 1998 and FY 1999 were more than anticipated (22% below FY 1997) leaving "functional holes" in the IHS infrastructure. Some of these functions must be restored to meet accountability requirements so the target FTE level will be at the FY 1999 target level (i.e., 10% below the FY 1997 level.
Indicator 35: By the end of FY 2000, the IHS will have increased the number of interagency agreements and cooperative agreements with agencies and organizations that are directed at improving the health status and/or the quality of life of AI/AN people by 5 % over the FY 1999 level.	**Indicator 35:** By the end of FY 2000, the IHS will have increased the number of interagency agreements and cooperative agreements with agencies and organizations that are directly linked to performance plan indicators over the FY 1999 level.	The number of agreements is not a reliable and valid measure of the level of collaboration relative to the performance effort. For example, several agreements have been folded into a single larger agreement. This reflects a decrease in the number of agreements, but a higher level of collaboration.
Indicator 36: By the end of FY 2000, the IHS will have fully implemented Managerial Cost Accounting (MCA) in accord with DHHS and OMB guidance.	**Indicator 36:** By the end of FY 2000, the IHS will continue the implementation of Managerial Cost Accounting (MCA) through the development of transitional pilot sites in accord with DHHS and OMB guidance.	Performance level adjusted based in FY 2000 appropriation and an anticipated delay the implementation of needed data systems across local health care facilities.
Indicator 37: For FY 2000, the IHS will improve its overall Human Resource Management (HRM) Index score to at least 95 as measured by the DHHS annual HRM survey.	**Indicator 37:** For FY 2000, the IHS will improve its overall Human Resource Management (HRM) Index score to at least 94 as measured by the DHHS annual HRM survey.	Performance level adjusted based in FY 2000 appropriation.

A.3 Linkage to HHS and OPDIV Strategic Plans

The IHS FY 2001 Plan was developed in the context of the IHS component of the HHS Strategic Plan and the four broad strategic objective described in Section 1.1. From the perspective of the HHS Strategic Plan, every indicator selected directly or indirectly supports Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives.* Furthermore, most indicators also address multiple other Department objectives and are listed in the "Linkages" section of each individual indicator.

A.4 Performance Measurement Linkages with Budget, Cost Accounting, Human Resources, Information Technology Planning, Capital Planning and Program Evaluation

Performance Measurement Linkages with Budget

One of the greatest challenges of implementing the GPRA in a public health program is responding to the requirements of demonstrating an outcome focus on one hand and better linkages to funding (and hence, costs) on the other. These are difficult and in some cases impossible goals to mutually accomplish. The IHS has integrated the use of process, impact and a few outcome indicators but because many health outcomes cannot be realized in a one-year plan, we have predominantly focused on activities that have an evidenced-based association with positive health outcomes over time (impact).

To attempt to enhance short-term detailed cost accounting as well as discipline specific outcome assessment capability would require the reprogramming of a significant proportion of resources away from patient care into administrative infrastructure. Such an effort would run against current trends and directives from the Department, Congress, OMB and our stakeholders. We contend given these realities, our plan meets the requirements and intent of the GPRA and more than adequately strengthens the connection between showing how health care funding is annually prioritized to the problems of greatest concern of our consumers. Health outcomes (i.e., mortality and morbidity) are well articulated annually in our publication ***Trends in Indian Health***, but which present data that are two to three years old because of delays in the Nations data system infrastructure.

The IHS has elected to keep general reference to funding levels in the plan and built estimated accomplishment around the request funding level. We can identify which requested funding enhancements are generally linked to supporting specific indicators in some cases. While the linkage would be relatively clear and direct in the case of public health nursing or dental care related indicators, it would get more complex with the diabetes-related indicators and extremely vague in the case of consumer and employee satisfaction related indicators. Applying a linear single path manufacturing accounting model to many health problems and management issues in a comprehensive public health program such as the IHS is not feasible.

We have selected an aggregation approach largely based on the way our programs are managed and have selected four functional areas for the aggregation of the 24 budget categories identified in the IHS “Detail of Change Table”: 1.) Treatment, 2.) Prevention, 3.) Capital

Programming/Infrastructure, and 4.) Consultation, Partnerships, Core Functions, and Advocacy. While this approach may appear to be an overly simplistic "lumping" of categories, it is important to realize that there is no aggregation or disaggregation that allows mutually exclusive activities linked to mutually exclusive health problems. For a more detailed discussion of these issues, see the *Program Aggregation* section on page 24 of this document.

Cost Accounting

Beginning in FY 1997, the IHS contracted with the Mitretek Systems to analyze technical alternatives for IHS cost reporting/cost accounting. This provided a detailed analysis of technical alternatives and a cost benefit and trade off analysis of alternatives. The results have been provided to a steering committee to support strategic decision making regarding the implementation of cost reporting and cost accounting at IHS. This system is necessary to assist IHS leadership to maximize utility of diminishing resources, be cost effective, and ensure that patient care can be provided to its customers.

Most recently, the steering committee met during the week of August 2, 1999, in Portland, Oregon. The immediate objective of this workgroup was to review, revise and expand the cost center structure of the agency. All the current 95 cost center specifications were reviewed for content and current applications. The workgroup has recommended that some of the current cost centers be deleted in future years.

Likewise, several new cost centers will be recommended for development. These reflect current technology, terminology and healthcare practices that will further help to delineate the agency's costs. It is anticipated that a larger workgroup will further revise the cost center in FY 2000 as well as look at other cost accounting issues and direction.

Human Resources

The IHS is committed to human resource development as an essential component of performance planning and performance management. Historically, we have consistently invested in long and short-term training in the clinical, public health, and management/leadership areas to assure capable providers and public health leaders. In recent years we have reduce these investments to in order to support other priorities. The effects of these reductions in training are undoubtedly multiple but perhaps most evident in growing staff retention difficulties. That these two problems are related was confirmed in surveys of employees leaving the IHS, who indicated that a lack of training opportunities was a significant determinant in their decision to leave.

Across budget categories in the requested FY 2001 IHS budget is a renewed commitment to find cost effective approaches to better meeting human resource development needs including clinical, public health, management, information technology, and teamwork. Through our Quality of Work Life initiative, the IHS has attempted to align its performance goals with its human resource management efforts in several ways. One, IHS has began a process by which future executives are identified and trained to take over top leadership positions one they become available. Primarily, the use of candidate development programs at all levels is the process that we will be using. Two, there is a large push to train our present and future leadership cadre at the lower levels by offering courses like Leadership in Context which focuses on leadership behaviors at all levels, and Leadership 2000 which focused on leadership behaviors at the individual contributor level. Three, we are planning to train a cadre of internal consultants/coaches to offer support and infrastructure to the change in culture that will be

needed for the future of Indian health. Four, there is a major push toward flexibility in working conditions for all employees, like flexiplace, flextime, etc.

We use the Human Resource Management Index (HRMI) to determine if our Human resource program is meeting employee and management expectations. The HRMI measures 14 different work related issues ranging from management culture to employee morale. The IHS HRMI score has been identified as a performance measure in both the FY 2000 and FY 2001 IHS Performance Plans (see Indicator 37 on page 82) and we expect to raise the HRMI score by at least one point each year to document performance improvement.

Information Technology Planning

The Clinger-Cohen Act (CCA) of 1996 (formerly the Information Technology Management and Reform Act), established new requirements for the information technology (IT) planning process that emphasize the management of IT resources as a "capital investment" and link these IT planning activities to budget and performance measures. The Act reflects the growing importance that the management of IT resources plays in contributing to efficient government operations. The IHS is working to integrate CCA activities in support of GPRA efforts and visa versa.

The IHS budget formulation process is the mechanism through which the portfolio of IT investments is selected and funded. Increased attention needs to be given to the economic and business justification of major investments. During the budget execution phase, an intensified management control process will be established to ensure performance goals are achieved, and that IT projects are delivered on time, within budget, and perform as intended.

The establishment of an IT investment review process as required by CCA represents a major paradigm shift in IT planning, acquisition and management. Because of this, IHS efforts have focused on educating I/T/Us in the new IT management process and providing technical guidance in the development of IT management processes consistent with their operational and management environments.

During FY 2001, the IHS will establish an agency-wide IT Investment Review Board (ITIRB) and policies and procedures on IT capital planning and investment control processes in accordance with CCA requirements and Departmental guidelines. The IHS' approach to CCA implementation will follow the example of the Department in delegating responsibility and authority to the Area Directors for Area IT capital planning and investment control.

As part of the requirements of GPRA and the CCA, performance measurement is an essential part of effective management. CCA requires IHS to measure the contribution of IT investments to mission results. A key goal of the CCA is for agencies to have processes and information in place to ensure that IT projects are implemented at acceptable costs, within reasonable and expected time frames, and are contributing to tangible, observable improvements in mission performance. To effectively link strategic and IT capital planning along with the budget process, IT performance measurement efforts must monitor the performance of IT investments/projects to address whether they are effectively supporting the mission and programs of IHS.

Capital Planning

Capital asset planning for health care facilities construction is done in accordance with the IHS Health Care Facilities Priority System Methodology and submitted to OMB through Circular A-11, Preparation of Budget Estimates, Section III for reporting capital assets. These issues are represented in this performance plan by the three Capital Programming/Infrastructure Indicators 29-30 beginning on page 70.

Program Evaluation

In recognition of the growing importance of evaluation in supporting the IHS Mission, Goal and GPRA performance planning, the IHS has elected to add this section addressing program evaluation for FY 2000. The IHS evaluation process seeks to include American Indians and Alaska Natives as primary stakeholders in defining the purpose, design, and execution of evaluations. Stakeholders are the users of the end product of evaluations and typically are the population or groups most likely to be affected by the evaluation findings. The IHS has worked with it stakeholders in identifying and implementing principles of responsive evaluation practice and setting evaluation priorities.

The purposes of IHS evaluation efforts are:

- to advise the Director of the IHS on policy formulation; to conduct and manage program planning, operations research, program evaluation, health services researches, legislative affairs, and program statistics
- to develop the long-range program and financial plan for the IHS in collaboration with appropriate agency staff
- to coordinate with HHS, Indian Tribes, and organizations on matters that involve planning, evaluation, research and legislation
- to develop and implement long-range goals, objectives, and priorities for all activities related to resource requirements and allocation methodologies and models.

The Office of Public Health (OPH) serves as the principal advisory office to the IHS on issues of national health policy and coordinates these four evaluation functions:

- *Health Program Evaluations*--Collect and analyze information useful for assisting IHS officials in determining the need for improving existing programs or creating new programs to address health needs.
- *Policy Analysis*--Conduct analyses when a change in the IHS health service delivery system must be considered, when issues emerge in an area where no policy currently exists, or when current policies are perceived as inappropriate or ineffective.
- *Health Services Research*--Undertake analyses of the organization, financing, administration, effects, and other aspects of the IHS.
- *Special Studies and Initiatives*--Conduct studies and prepare special reports required by Congress in response to pending legislation or policies, often using a roundtable whenever an issue or a health problem requires immediate action and it is unclear what type of action should be taken.

The OPH meets part of the IHS evaluation needs with two major types of short-term studies: policy or program assessments and evaluation study. The policy study contributes to IHS decision making about budget, legislation, and program modifications and includes background

information to support IHS initiatives. Evaluation studies are carried out at the program level, or area offices, and focus on specific program needs.

Annually, OPH identifies the high-priority health care and health management issues and concerns through the submission of headquarters and area office proposals for assessment or evaluation. IHS area and associate directors submit proposals for possible areas of evaluation study. These proposals are reviewed and rated by a panel of subject-matter experts and evaluation experts and also reviewed by IHS staff for more specific concurrence with IHS strategic goals, objectives, and priority areas. The proposals are then ranked by priority and forwarded to the OPH for review and approval. The Director of the IHS reviews the final proposals and decides the respective funding levels.

Summary of Relevant Evaluations Activities

Several recent evaluation projects have significant direct and/or indirect implications for IHS performance planning and are thus summarized below:

Level of Need Funded Study Part 1: Benefit Package Costs for All Indians: This study, which is currently in draft report status, was designed to answer the question: *What would it cost to provide an equitable level of health care services to all eligible Indian people?* The research team used an actuarial analysis approach to address factors that affect the cost of providing health care benefits. The Federal Employee Health Benefits Plan was used as the benchmark for coverage and cost (i.e., premiums, co-payments, and deductibles) and adjustments were made for the population's age, health status, location, and estimated payments by other insurers (i.e., Medicare, Medicaid, and private).

The finding revealed that a health care package comparable to the Federal employee's provided to all 2.4 million AI/AN would cost $2,980 per person for a total cost of $7.4 billion annually. This same coverage applied to the current 1.34 million using the IHS system would cost approximately $4 billion with about 25% of the cost expected to come from other sources (i.e., Medicare, Medicaid, and private). IHS appropriations provide only 59% of net funding needed for the 1.34 million Indian users and an additional $1.2 billion would be needed to raise the level of need funded to 100%. The cost to expand coverage to the 1 million eligible Indians not now served by the Indian health care system would be an additional $3 billion.

Diabetes in the Native American Population: The purpose of this project is to evaluate the effects of intensive counseling and drug management on the lowering of HgAlc's hypertension control and compliance with annual exams through a pharmacy practitioner diabetes program. The current Santa Fe Service unit (SFSU) HgAlc average is 8.3%. This is a reduction from 9.4% in 1995. It has been suggested that this reduction is due to the increased use of metformin at the SFSU. The cost of this agent for the past 2 years at SFSU alone totaled $45,303. The estimated cost of all diabetic medication in FY 97 was $31,750. The proposed use of another new agent trogilitazone has the potential of triple this dollar amount. The project will attempt to limit these expenses by providing intensive counseling on the use of medications, reinforcing dietary and lifestyle changes and recommended by the dietician, reinforcing the use of self-blood glucose monitoring, and adjusting medication per protocol or doctors orders.
The findings from this study underpin many of the strategies used in to achieve Indicators 2-5.

Evaluation of the Behavioral Risk Factor Surveillance System's Results and their Applicability to the Native Population of Anchorage: The purpose of this evaluation study is to determine the relative accuracy, validity and reliability of the Behavioral Risk Factor Surveillance System (BRPSS) risk estimates of the Anchorage Native population compared with data collected using other techniques that include (a) door-to-door household surveys, (b) key informant surveys, and (c) intercept data collection from Natives seeking primary care services in Anchorage from the Alaska Native Medical Center and the Primary Care Center.

The findings have significant implications for the most efficient and effective approaches to delivering health services and thus achieving many of the performance measures in this plan.

Evaluating the impact of primary intervention techniques on the dental caries rate in children living in southwest Alaska Native villages: The project will identify the reason why some communities in Bristol Bay have significant higher/lower caries rates in children than do other children in other Bristol Bay communities. Children aged 6-8 have been selected for the project. Since there are multiple contributing factors from caries, multiple risk factors must be reviewed to properly assess the risk for disease. The results of the project will be used to identify the factors that create high risk communities. A community model will be developed for use in allocating specific techniques including use of fluoridated water, consistent tropical fluoride application, village education and support will reduce decay by an average of 2-3 surfaces per child at the end of those years.

Alaska Native Teen Tobacco Cessation Project: The purpose of the Alaska Native Teen Tobacco Cessation Project is to (1) help the youth who participate in the project to quit tobacco, 2) motivate the youth to become tobacco prevention and cessation advocates in their communities, and 3) determine the effectiveness of the cessation camp model in helping youth to quit tobacco. The utility of the study is to provide health educators, parents, teachers, community health aids, and other community health workers with information about the effectiveness of this particular approach to teen tobacco cessation.

This project will provide important information and strategies relevant to the development of Tobacco Control Centers as outlined in Indicator 26.

Assessing Substance Abuse Treatment Outcomes for Native Americans Residing on the Reservation: This study will provide a description of the severity of the participants' problems across eight domains (medical, legal, employment, social, drug use, psychological and spiritual) prior to intervention, and for up to 24 months after intervention. This description will provide the basis upon which improvements of the treatment program can be made. Areas that should be targeted for specific populations will be identified. In addition, the study will produce a set of manuals documenting the interventions provided by Indian Rehabilitation, Inc., in a manner that will allow replication by other facilities.

Methodology for Adjusting IHS Mortality Data for Inconsistent Classification of Race-Ethnicity of American Indian and Alaska Natives Between State Death Certificates and IHS Patient Registration Records: The findings in this study indicate that on 10.9 percent of IHS Indian records matched to national death records, the race reported for the decedent was other than American Indian or Alaska Native. The percentage of records with inconsistent classification of race varied considerably among the IHS Areas. Recommendations included replicating the study using data on deaths occurring since 1988, using the adjustment factors developed in the study, and working with States to decrease inconsistent race reporting. While the significance of the study is not profound in terms of the performance indicators in this plan (i.e., the indicators are not based on State death certificates), the long-term significance in monitoring mortality disparities for the AI/AN population is critically important. The adjustments factors developed from this investigation are now being utilized in calculating AI/AN mortality rates in all the IHS publications.

Evaluation of the Indian Health Service (IHS) Adolescent Regional Treatment Centers: The principal conclusion based on this study's findings is that regional treatment centers have developed effective adolescent alcohol and substance abuse programs. The continuity of care and aftercare, however, is the biggest problem. The regional treatment centers need additional mental health staff resources, client charting improvements, and innovative ways to increase family involvement. Recommendations include improving the continuum of care to adolescent substance abusers, self-evaluation, and regional treatment center effectiveness and efficiency. This evaluation effort served as a major determinant in selecting Indicator 9 for this plan that addresses follow-up care for youths returning from regional treatment centers.

Evaluating the Effectiveness of Alcohol and Substance Abuse Services for Native American and Alaska Native Women: Phase II Final Report: This evaluation provides both qualitative and quantitative information about a group of women that has been traditionally underrepresented in research. The life conditions of women about whom information was gathered are extreme, and for many women, adverse or abusive childhood experiences and conditions have carried through to adulthood. The vast majority of women were exposed to various types of abuses--such as physical, sexual, and emotional abuse--from childhood to adulthood. Women entered treatment through a variety of ways. Those who were mandated tended to enter treatment as an alternative to incarceration. Women hear about the availability of services through the court system, word-of-mouth, or through a community or an American Indian and Alaska Native social service agency. Women in the focus groups tended to select their current alcohol and other drug treatment program over alternatives because of its focus on American Indian and Alaska Native tradition and culture. The women and staff also espoused the benefits of the family-like environment that the treatment centers promoted. The availability of women-centered, family-focused approaches to alcohol and other drug treatment is severely limited in the United States. Several barriers to services for potential participants exist. The leading obstacle for parenting women is the lack of child-care for their children while in treatment. It was strongly emphasized that a woman's recovery was dependent on three key factors: herself, her social networks, and her community.

Partially based on the findings of this evaluation, this plan includes indicators which address policies and procedures for dealing with substance abusing women (Indicator 10) and for identifying, treating and/or referring victims of family violence, abuse or neglect (Indicator 14).

Prior Trauma Care of Intoxicated Patients as a Predictor of Subsequently Fatal Injury: The IHS has funded a study that includes the preliminary data collection, crude data reporting, and initial death certificate-hospital record linkage for alcohol related fatalities. The purpose of this study is to identify intervention opportunities associated with nonfatal, alcohol-related injuries reported in IHS emergency departments and clinics that could, over time, decrease alcohol-related injury death in the Billings, Montana, Service Units. This study is providing baseline data for post-intervention comparisons by expanding the existing database about alcohol-related injuries and death. The findings are being used to identify different intervention and prevention strategies directed at decreasing alcohol-related injuries and deaths in the Billings, Montana, Service Units. Injury-control efforts include a new policy regarding referrals by emergency room treatment staff to alcohol treatment staff. Prevention of alcohol-related injuries and deaths will also include activities focused on informing youth about the relationship between alcohol consumption and high-risk behavior. The findings of this evaluation effort underpin the interventions that are being used in achieving Indicator 22 in this plan addressing the reduction of unintentional injury mortality rates.

Resource Requirements Methodology Update: In the early 1970's, the IHS formulated the Resource Requirements Methodology (RRM) as a management tool to provide a comprehensive, systematic, and uniform process for estimating the level of resource requirements necessary to provide adequate health care to IHS customers and to assist in the allocation of non-earmarked resources. To reaffirm the purpose of the RRM, a study was conducted in 1995 to determine the validity and accuracy of the present methodology for use in today's health care environment. Preliminary findings support the need to update the current methodology to meet the future program demands of the IHS. The will consist of the following phases: (1) Update Staffing Criteria and Modules, (2) Formulate Needs Assessment Cost Model, and (3) Needs Assessment Model Training. This methodology is critical to planning the achievement of most of the health service related indicators identified in this plan.

Development of a Health Services Research Agenda for American Indian and Alaska Native Populations: The IHS and the Agency for Health Care Policy and Research cosponsored a health services research conference as a first step in a long-term agenda-setting process to identify the most important health services research issues facing AI/AN communities and their health care systems over the next 5 to 10 years. The health services research agenda is intended to promote collaboration among American Indian or Alaska Native organizations, tribal and urban health systems, medical communities, foundations, and government agencies to increase communications and produce research information on health program services for the American Indian or Alaska Native patient. The health services research agenda is also intended to provide a forum for discussing health care reform changes that are creating new directions in the Indian health care system.

The agenda developed from this conference will serve as a priority guide in achieving Indicator 35 in this plan that seeks to increase collaborative partnerships with other organizations.

New Directions for Evaluation

The IHS is responding to dramatic changes taking place inside and outside the Government including greater involvement of tribal governments in the Indian health care system, technological innovations, the changing patterns of disease to more chronic conditions, and the transfer of many Federal programs and resources to individual States. These changes will affect the IHS evaluation strategy in the coming years. Nevertheless, the IHS remains committed to comprehensively community-based, preventive, and culturally sensitive projects that empower tribes and communities to overcome health issues. Specific research and evaluation proposals currently in process include the following topics: evaluation of the effects of medical nutrition therapy on patient outcomes among Native Americans with newly diagnosed type II diabetics, evaluation of the elders clinic at the Zuni (New Mexico) Ramah Service Unit, and the evaluation of the impact of the Northern Cheyenne End-Stage Renal Disease Prevention Project.

In addition, the Director of the IHS has increased emphasis on several areas consistent with the Secretary's initiatives and the DHHS Strategic Plan. These initiatives focus on women's health, youth, traditional medicine, elder care, and establishment of working relationships with Federal and State governmental agencies. These initiatives will undoubtedly affect new directions for evaluation.