

REPORT TO CONGRESS

ON

**ESTIMATED NEED FOR TRIBAL AND INDIAN HEALTH SERVICE
HEALTH CARE FACILITIES**

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Executive Summary

The Indian Health Care Improvement Act (IHCA) directs the Indian Health Service (IHS) to provide to the Committee on Indian Affairs of the Senate and the Committee on Natural Resources of the House of Representatives, by March 23, 2011, a report that describes the comprehensive, national, ranked list of all health care facilities, including specialized health care facilities (such as long-term care and alcohol and drug abuse treatment), wellness centers, and staff quarters.

This initial report provides an estimate of need based on the information that is currently available and that could be summarized with existing resources within the time frame specified. This report provides the total estimated cost to complete unfunded projects on the existing Health Care Facilities Construction Priority List (Priority List) plus the total estimated cost to construct, renovate, and/or expand tribal and IHS inpatient and outpatient facilities not on the Priority List but identified in Area Health Services and Facilities Master Plans developed five years ago. Costs for facilities on the Priority List, were developed using the IHS Facilities Budget Estimating System (FBES). Costs for all other Tribal and IHS facilities were estimated by determining space requirement for each facility and multiplying this times the historical average unit cost to construct comparable health care space. Estimates for all facilities are summed to derive the total estimate. Space was estimated using the IHS Health System Planning (HSP) process software for smaller facilities (less than 1,319 user population) and using formulas to determine the average space per user population for larger health centers and the average space per patient bed days for inpatient facilities.

The top 10 priority inpatient, outpatient, staff quarters and youth regional treatment center projects on the current Priority List are not affected by any change in the priority system; therefore, the 17 projects on the existing Priority List are the highest ranked in this IHS estimate of need. The cost to complete facilities on the Priority List is approximately \$2.5 billion. The estimated cost to address the construction needs (whether through new construction, renovation and/or expansion) of additional facilities identified in Area Health Services and Facilities Master Plans, developed in 2005-2006, is approximately \$5.9 billion. Estimated costs may change significantly when the planning is completed for these facilities and the FBES is applied.

The IHS planning methodologies do not incorporate processes to develop space or cost estimates for wellness centers or specialized facilities as noted above (which could include types of facilities not mentioned as examples in the legislation, i.e., dialysis facilities, psychiatric facilities, etc.). IHS has not yet developed these methodologies, which are needed to update IHS Area Health Services and Facilities Master Plans. The accomplishment of these items will be done in collaboration and consultation with the Tribes.

Developing a ranked list of need requires a ranking methodology that has been reviewed by the tribes and approved by the Administration and the Congress. In addition, before the ranking methodology can be implemented, the IHS must complete two planning activities for which resources have yet to be identified:

1. Develop descriptions of need for all services (including specialized services) for which facilities are to be planned.
2. Develop an IHS master plan that incorporates a full description of need for inpatient, outpatient, and specialized services, including the facilities required to provide access to these services.

When resources become available to develop definitions for specialized services and space and to update the IHS master plans to incorporate these definitions, the IHS could use the proposed recent revision to the Healthcare Facilities Construction Priority System (HFCPS) to generate the ranked list of all facilities, including specialized facilities.

Purpose for this Report

On March 23, 2010, the Indian Health Care Improvement Reauthorization and Extension Act of 2009, S. 1790, 111th Cong. (2010) (IHCIREA), was enacted into law as section 10221(a) of the Patient Protection and Affordable Care Act, Pub. L. No. 111-148 (PPACA). IHCIREA reauthorized and amended the Indian Health Care Improvement Act, Pub. L. No. 94-437 (IHCIA). Section 301 directs the Secretary to provide to the House and Senate committees no later than one year after the date of enactment, a report that:

describes the comprehensive, national, ranked list of all health care facilities needs for the Service, Indian tribes, and tribal organizations (including inpatient health care facilities, outpatient health care facilities, specialized health care facilities (such as for long-term care and alcohol and drug abuse treatment), wellness centers, and staff quarters, and the renovation and expansion needs, if any, of such facilities).

25 U.S.C. 1631(c)(2)(A)(ii)(1).

Background on the IHS Health Facilities Planning Process

The IHS planning process stipulates the assumptions, criteria, and thresholds for planning health programs that effectively and efficiently deliver access to services through hospitals and health centers. Tools used in this planning process include service delivery guidelines, Area Health Services and Facilities Master Plans (Master Plans), the IHS Health System Planning (HSP) software, and the Health Care Facilities Construction Priority System (HFCPS). The general process that IHS has used to plan how, where, and what kind of facilities the IHS will construct is as follows:

- IHS planning guidelines are used to instruct Areas and Tribes on the development of Area Health Services and Facilities Master Plans.
- Areas and Tribes assess health services need and develop plans for providing services by contract or through constructed facilities; most of these plans incorporate the HSP to provide planning assumptions for delivery of services throughout the Area and to provide conceptual facility plans for each location at which a need is identified.
- The existing HFCPS is a methodology used to identify and rank need for facilities, using the Master Plans as a source for information and local priorities. The HFCPS uses Phase I and Phase II to screen projects and to provide a draft ranking of a limited number of facilities. These rankings are then fully validated through statistical and planning analysis of each proposed project being considered in Phase III. Some projects may be removed from consideration if validated and verified information would generate a lower ranking.
- When these Phase III analyses are completed, a Program Justification Document (PJD) and Program of Requirements (POR) are prepared for each project for which information

has been validated and verified. The PJD/POR describes the facility health delivery program, including services to be provided and the staffing and space requirements for those services.

- When these project PJDs and PORs are approved, they are added to the IHS Health Care Facilities Construction Priority List (Priority List) below all other projects.

In 1991, Area offices submitted proposals for 149 health facilities construction projects for review in the HFCPS. These proposals represented the Area offices' highest priority needs; however, they did not reflect the total need for health facilities construction in Indian Country. All proposals submitted were evaluated using the HFCPS methodology for Phase I, resulting in about 30 being selected for Phase II review. In 1992, following the completion of the Phase II evaluation, Area offices were asked to work with Tribes and local communities to prepare a detailed Program Justification Document (PJD) for each project advancing for Phase III review. After a PJD was approved, each project was placed on the IHS Priority List in the order of its approval. The last of these projects was added to the Priority List in 2008.

When the Priority List was developed (1991-1994), annual appropriations were between \$80 million and \$125 million, and it was expected that the needs identified would be addressed in a few years. However, funding levels (1995-2010) averaged less than \$45 million per year; and as a result many of those projects still remain to be completed (see Appendix A, "The IHS Health Care Facilities FY 2012 Planned Construction Budget"). Ensuring that these 17 facilities on the Priority List rank highest in the IHS report of need is consistent with the recent instruction in the amendments to the IHCA that the priority of facilities identified under the existing HFCPS be protected.

Of the 17 inpatient and outpatient facilities on the existing Priority List, all but two, which were grandfathered onto the list, were added using this process. The two California Youth Regional Treatment Centers (YRTC) on the current list were not added as part of this process, but were added to comply with Section 708 of the IHCA. Section 708 directs IHS to construct one YRTC in each Area except California, which is to receive two facilities.

In 2005-2006, the IHS Areas were asked to update Master Plans in consultation with the Tribes. All Areas completed these by the end of 2006. These plans, with supporting statistical information, describe the tribal and IHS inpatient and outpatient health services and facilities need in each Area (Appendix B). Areas did not document a need for specialized care facilities because authorizations did not exist prior to enactment of the reauthorized IHCA. Furthermore, IHS has not developed methodologies or assumptions to govern how these services would be delivered or how staffing and facility size would be determined.

Although the IHS maintenance and improvement (M&I) program is not directly part of the overall facility planning process, the two activities are not mutually exclusive. Efficient and effective buildings and infrastructure are necessary to deliver healthcare in direct support of the

IHS mission. An active and aggressive new construction program is essential to address the backlog of maintenance and repair. When IHS replaces an older, obsolete hospital or clinic with a new facility, all the deficiencies associated with the old facility are removed from the backlog.

Maintaining reliable and efficient buildings is increasingly challenging as existing facilities age and the demands of providing modern healthcare services strain the infrastructure. Many of IHS and Tribal facilities are old, overcrowded, and not designed to be utilized efficiently in the context of modern healthcare delivery. As existing health care facilities continue to age, the healthcare delivery system tends to become less efficient and the operational and maintenance costs for the facility increase. The average age for IHS-owned healthcare facilities is 31 years. Fourteen of the 35 IHS hospitals and 22 of the 61 IHS health centers are older than 40 years; whereas, the average age of private-sector hospital plant is 9 to 10 years.

The physical condition of the existing IHS-owned and many Tribally-owned facilities is evaluated through a series of condition surveys. These surveys, together with routine observations by facilities personnel, identify deficiencies that are included in the Backlog of Essential Maintenance, Alterations, and Repair (BEMAR). The current BEMAR for IHS and reporting Tribal facilities as of October 1, 2010, is \$472.9 million (Appendix C). In the commercial (non-government) healthcare sector, hospitals spend an average of approximately five percent of a facility's value each year on restoration and modernization to maintain a reasonable backlog of maintenance and repair. Applying this industry level would establish a maximum BEMAR of no more than \$173 million if IHS had enough appropriations to apply that standard. The \$173 million is based upon the industry standard that the BEMAR should not exceed 5 percent of the asset value of the healthcare facilities.

Closely associated with BEMAR is the Condition Index (CI), which is a measure of the condition of facilities. In 2005, the Federal Real Property Council approved the CI as the measure of a constructed asset's condition at a specific point in time. The CI is calculated as the ratio of Repair Needs (i.e., BEMAR) to Replacement Value. The CI is reported as a "percent condition" on a scale of 0 to 100%. The higher the CI, the better the condition the constructed asset is in. The average CI of all IHS-owned facilities is 81, which is significantly below the Department of Health and Human Services goal of 90 (Appendix C).

Process for Developing Report Required by the IHCIA

Section 301 of IHCIA directs that the priority of projects on the current Priority List be protected, as follows:

The priority of any project established under the construction priority system in effect on the date of enactment of the IHCIA shall not be affected by any change in the construction priority system taking place after that date if the project—

- (i) was identified in the fiscal year 2008 Service budget justification as—
 - (I) 1 of the 10 top-priority inpatient projects;
 - (II) 1 of the 10 top-priority outpatient projects;
 - (III) 1 of the 10 top-priority staff quarters developments; or
 - (IV) 1 of the 10 top-priority Youth Regional Treatment Centers;
- (ii) had completed both Phase I and Phase II of the construction priority system in effect on the date of enactment of such Act; or
- (iii) is not included in clause (i) or (ii) and is selected, as determined by the Secretary—
 - (I) on the initiative of the Secretary; or
 - (II) pursuant to a request of an Indian tribe or tribal organization.

25 U.S.C. § 1631(c)(1)(D).

Therefore, the 17 projects on the existing Priority List are the highest ranked in this IHS estimate of need and are included in Appendix A.

This report estimates the cost to address the health care facilities need for which IHS has developed planning criteria and assumptions, that is, for traditional outpatient and inpatient medical care facilities using the recent updates of the Master Plans in consultation with Tribes in 2006. The IHS planning methodologies do not incorporate processes to develop space or cost estimates for wellness centers or specialized facilities (which could include types of facilities not mentioned as examples in the legislation, i.e., dialysis, psychiatric, etc.) because these were not required prior to the reauthorization of IHCA in 2010.

A more complete estimate incorporating the cost for these specialized facilities, including long term care facilities, wellness centers, etc., noted in the congressional directive, will be provided when planning criteria and assumptions are developed for these services and facilities.

Developing planning methodologies that incorporate planning assumptions for wellness centers, specialized facilities, etc., will need to include delivery modes, demographic studies, workload thresholds, and concepts of operation to ensure that facilities are well planned to deliver the appropriate access to services for the population served. The complexity of issues related to developing planning assumptions are such that they need full IHS and Tribal review before beginning the equally complex task of updating Master Plans that define the type of services and facilities to plan, where to build them, and how they should be sized, designed, and staffed.

Developing methodologies for newly authorized specialty facilities, obtaining and reviewing data, and incorporating these specialty facilities into Area Master Plans will require three activities.

#1 - Criteria Development – The development of demand, staff and space operational metrics, staff and space allocation formulas for all newly directed services.

#2 - Operational Principles – The review and development of guiding principles related to the integration of existing and new services. IHS and Tribes will discuss issues specific to regional specialty centers including long term care, medical home, chronic care initiative, telemedicine among other technological advancements relative to the future of Indian Health and its delivery system.

#3 - Update of Indian Health Master Plans – The synthesis of the existing criteria, new criteria, operational principles, and interfaces nationwide to describe the IHS/Tribal healthcare delivery system, and identifying the required services, staff and space requirements for these newly authorized specialty centers.

These activities will require resources and consultation with the Tribes.

When planning has been completed, a ranked listing of all facility need can be developed using the HFCPS revision when it is submitted to the Congress.

The total estimate of facilities need (\$8.4 billion), provided in this report, was developed by adding the cost to complete facilities on the existing Priority List (\$2.5 billion) to the estimated cost to address all other need for inpatient and outpatient facilities that includes the Priority List Need (\$5.9 billion).

The estimated cost for facilities on the existing Priority List was determined by using the HSP and the Facility Budget Estimating System (FBES). The HSP uses IHS User Population as an input to assist planners in developing a basic description of program services and a module-based facility plan. The IHS User Population consists of registered American Indian and Alaska Native patients who have had direct encounters with IHS inpatient, outpatient, or dental services—or received IHS referrals for these services—during the most recent three years. The HSP output provides a generic estimate of facility size and layout that can sometimes be used as a rough estimate of need, but is more usefully employed as a guide by IHS planners as they develop a detailed program description, staffing plan, facility plan, and medical equipment list that effectively and efficiently meet the requirements of the community for which the facility is planned.

Once the facility size, staffing, and equipment requirements are established, these are then entered into the FBES to develop a budget cost. The FBES uses construction cost data from industry standard publications (such as the R. S. Means Company, Marshall Swift, etc.). The FBES incorporates all costs associated with construction, including design, material, wages, medical and non-medical equipment, site development, construction scheduling and administration, and local taxes and fees. Because of the wide diversity in locations where IHS builds facilities, estimated costs include adjustments based on the location of the facility.

The estimated cost for facilities not on the Priority List was generated by multiplying the average cost per square meter to construct health care space times the estimated required space of each facility times a location factor (See Exhibit 1, “Estimated Cost Formula. The formula is a

standard for estimating building construction costs when using industry cost estimating methodologies of R.S. Means Company, Marshall Swift, and locality factors.

Exhibit 1 - Estimated Cost Formula

$$\text{Estimated Cost} = (\text{Average Cost Per Square Meter}) \times (\text{Required Space}) \times (\text{Locality Factor})$$

The population for a facility is the current user population of the Service Area described in Area Health Services and Facilities Master Plans. The cost factor is the average cost per square meter to construct a comprehensive IHS health care facility. Because inpatient facilities have more specialty space and also cost more per square meter to build, compared to outpatient facilities, a different cost factor is used for each type of facility. The location factor accounts for differences in costs to construct facilities at the wide diversity of locations where IHS builds facilities.

The required space value used in the Estimated Cost Formula was determined in one of three ways. For smaller populations¹ (between 138 and 1,319 IHS user population) the IHS has established criteria in the existing HSP that determines the size of these facilities (Exhibit 2, “Estimated Space for Health Centers and Health Stations”). Determining or estimating facility size for larger populations, requires a more complex analysis of the data and an application of the HSP and often involves adjustments to HSP output. Since IHS does not have resources to complete these analyses for all the facilities identified, required space has been estimated for these facilities using one of two formulas. For outpatient facilities providing access to services for a user population greater than 1,319 users, required space is estimated by multiplying the average space per user population times the user population (See Exhibit 2, “Estimated Space for Health Centers and Health Stations. For inpatient facilities the required space is estimated by multiplying the average space per bed day times the bed days (See Exhibit 3, “Estimated Space for Inpatient Facility”).

¹ The estimate provided in this report, only addresses need for user populations greater than 138, which is about the minimum population that can support a small 1-day-a-week medical clinic and a 2-day-a-week dental clinic.

Exhibit 2 - Estimated Space for Health Centers and Health Stations

IHS User Population	Required Space	Medical Clinic Days-per-Week	Dental Clinic Days-per-Week
138 to 275	221 Square Meters	1	2
276 -587	305 Square Meters	2.5	2.75
588- 900	494 Square Meters	3	5
901 – 1,319	1,022 Square Meters ²	5	5
=> 1,320	IHS User Population X 0.8 Meters	5	5

Exhibit 3 - Estimated Space for Inpatient Facility

<p>Inpatient Facility Estimated Space = (Patient Bed Days) X (5,500 Meters)</p>

Assessing the need for programs and services that would be provided in specialized health care facilities requires that significant resources be identified to modify the tools listed above or to develop similar tools. Also, resources are needed to update Area Health Services and Facilities Master Plans, developed in 2005 and 2006, to ensure they contain current data and incorporate the need for specialized services and facilities. These resources need to be identified before the IHS can develop a ranked list of all facility need. Finally, because Tribes must be consulted on issues such as facility ranking that potentially affect funds allocation, both the IHS and Tribes will need to identify resources for the consultation process.

Report

This report is based on existing information that could be efficiently analyzed and summarized within existing resources and the time frame specified. This initial report provides the total cost to complete unfunded projects on the existing Priority List plus the estimated total cost to address the construction, renovation, and expansion need for other inpatient and outpatient facilities in Indian Country where none currently exists or where a facility exists but is over 10 years old. A ranked list that includes these facilities, as well as specialized facilities for which planning information is not currently available, will be prepared and forwarded to the Congress,

² This facility, which is open 5 days a week, differs from a health center offering access for more than 1,319 users because it provides space for more limited services and because mission support and administration responsibilities would be shared.

as an addendum to a follow up report, as resources become available to develop definitions for specialized services space and to update the IHS Area Master Plans. Developing this list will require that planning information be applied to a ranking system similar to the proposed revision of the HFCPS. This report provides an estimate of facility need in Indian Country based upon Area Health Services and Facilities Master Plans developed in 2005 and 2006, a description of how the estimate was derived, and a discussion of the HFCPS, which includes the reason for using the revised HFCPS to rank facilities need.

Tribes were extensively consulted in 2006 on the concept of Area Master Plans and the HFCPS guidelines. More than 1,200 comments were received and considered in revising the HFCPS. Based on that process, space needs and costs were incorporated into the master planning guidelines. In the numerous meetings with Tribes since then, health facilities has remained a top issue of discussions. The Tribes have given no indication in these discussions for a major overhaul of the approach developed in 2006. Tribal consultation would be initiated if appropriations are received to incorporate new types of facilities not consulted on in 2006, such as long-term care and alcohol and drug abuse treatment and wellness centers.

To provide for Tribal participation in the review, development and implementation of policies, procedures, guidelines, and priorities of facilities construction programs, IHS established the Facilities Appropriation Advisory Board (FAAB). The FAAB included 12 Tribal representatives that advised the IHS Director on related health facility construction planning guidelines. The FAAB collaborated with the IHS during the consultation process and provided advisory input related to the concept of developing an interim report with available data from the 2005-2006 Master Plans.

The recent amendments to the IHCIA direct that the priority of projects on the current Priority List be protected; therefore, the 17 projects on the existing Priority List are the highest ranked in this IHS estimate of need. These 17 priority facilities on the existing Priority List will cost approximately \$2.5 billion to complete (see Appendix A, "The IHS Health Care Facilities FY 2012 Planned Construction Budget"). It is estimated that an additional \$5.9 billion is required to address the construction, renovation, and expansion needs for not-yet-prioritized inpatient and outpatient health care facilities identified in Area Health Services and Facilities Master Plans developed in 2005-2006 (see Appendix B, "Summary by Area of the Estimated Cost to Construct Indian Health Facilities"). The IHS existing Backlog of Essential Maintenance, Alteration, and Repair costs (See Appendix C, "Condition Index and Backlog of Essential Alteration Maintenance and Repair") are part of the \$5.9 billion estimate. On-going and consistent health care facilities construction and maintenance and improvement programs that address this need will improve the IHS condition index and reduce the BEMAR. The Area Health Services and Facilities Master Plans, originally intended to be updated every 5 years, are approximately 6 years old and will be updated when funds become available for this purpose.

Summary

The 17 facilities on the existing Priority List remain the highest ranked need. This report provides an estimate of the cost for health care facility need in Indian Country. The estimated cost to complete the facilities on the Priority List of approximately \$2.5 billion was developed using the IHS FBES. However, the estimated cost to address those facilities needs not on the Priority List, whether through new construction, renovation, and/or expansion of approximately \$5.9 billion was generated using formulas. Costs generated by the FBES and based on a more accurate definition of the needed facility, could be significantly different than the estimated \$8.4 billion needed for health care facilities throughout Indian Country. However, this more extensive assessment of need will require significant additional resources.

Developing a ranked list of need requires a ranking methodology that has been reviewed by the Tribes and approved by the Administration and submitted to the Congress. In order for the ranking methodology to be implemented, the IHS must complete two planning activities for which resources have yet to be identified:

1. Develop descriptions of need for all services (including newly authorized specialized services) for which facilities are to be planned; and
2. Develop an IHS master plan that incorporates a full description of need for inpatient, outpatient, and specialized services; including the facilities required to provide access to these services.

The existing HFCPS was first used nearly 20 years ago and with the new authorization contained in IHCIA, the IHS must consult with Tribes. This consultation must include health services need, facility type, staffing methodology, priorities, and budget allocation proposals. Finally, Tribes must be consulted on issues such as facility ranking that potentially affect funds allocation, and both the IHS and Tribes will need to identify resources to successfully carry out this important consultation process.

Appendices: Summary of Inpatient and Outpatient Need

Appendix A shows a need of \$2.5 billion for projects on the Priority List; Appendix B shows a need of approximately \$5.9 billion for other inpatient and outpatient facilities in Indian Country. The total health care facilities need of \$8.4 billion excluding special facilities described in the IHCI. Appendix B also separates inpatient and outpatient need, pages 2 and 3, respectively. Appendix C shows the IHS Condition Index and Backlog of Essential Maintenance, Alteration and Repair.