

The Full-Funding Requirement for Indian Health Services:

Estimating the Total Cost of Health Care for AI/ANs Eligible for IHS-Funded Services

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Carved mask, gift to the author from the Port Gamble S'Klallam Tribe

Abstract

This paper addresses a foundational question in Indian health policy: what would it cost to provide the full spectrum of health care services to all American Indians and Alaska Natives (AI/ANs) eligible for Indian Health Service-funded programs? Drawing on the 2023 CMS–IHS Data Match, IHS Congressional Budget Justifications, the NIHB 2022 Budget Formulation brief, American Community Survey estimates, and Centers for Medicare and Medicaid Services National Health Expenditure accounts, the analysis constructs a multi-component framework for estimating total need, current federal investment, and the remaining funding gap.

The primary estimate places full-spectrum annual need at approximately \$37–\$38 billion, derived under NHE-parity assumptions applied to the 2.6 million IHS service population. Current combined federal investment totals approximately \$19.3–\$19.9 billion, leaving an annual funding gap of approximately \$17.8–\$18.0 billion under these assumptions. A sensitivity analysis across five scenarios places the full-need estimate in the range of \$29–\$45 billion annually. Three methodological challenges are analyzed in detail, along with a fourth challenge concerning unmeasured health care expenditures funded through Contract Support Cost indirect appropriations.

Note on Estimates and Methodology

This paper presents analytically constructed estimates integrating datasets with differing definitions, coverage scopes, and reference years—including ACS PUMS, CMS administrative data, IHS budget documents, and NHE benchmarks. Several key figures, particularly the full-need estimate and the population without Medicaid or Medicare, are derived through multi-step calculations rather than directly observed values. They should be interpreted as benchmark approximations. The Medicaid expenditure component, anchored to the 2023 CMS–IHS Data Match, is the most reliably sourced figure in the analysis. Readers using this analysis for policy or program decisions are encouraged to independently verify key figures and to consult the methodological discussion in Section 6.

Key Findings

1. Full-spectrum annual need for the 2.6 million IHS service population, benchmarked to 2023 NHE per-capita rates (~\$14,500) under NHE-parity assumptions, is estimated at approximately \$37–\$38 billion (sensitivity range: \$29–\$45 billion).
2. Current combined federal investment totals approximately \$19.6 billion at the midpoint, covering roughly 52% of full need.
3. Under the NHE-parity framework, the annual funding gap is approximately \$17.8–\$18.0 billion — a floor estimate that does not include unmeasured Tribal own-source expenditures or CSC indirect health care channels.

4. A capital infrastructure investment of approximately \$26–\$30 billion, phased over 10–15 years, is required to address the IHS facilities crisis.
5. Approximately 778,000 individuals—30% of the 2.6M IHS service population and 51% of the IHS-access population—lack coverage through Medicaid or Medicare. The funding gap falls disproportionately on this uninsured population, whose care depends almost entirely on discretionary IHS appropriations and PRC.
6. Sensitivity analysis across five scenarios — varying population denominator, benchmark rate, and insurance offset assumptions — produces full-need estimates ranging from \$29.1 billion to \$45.2 billion, reflecting the range of defensible methodological choices rather than measurement error.
7. The current IHS per-capita rate of \$4,078 per active user (FY 2023) represents approximately 28% of the 2023 NHE benchmark.

1. The Question and Its Analytical Layers

The question—what is the total need to fund full-spectrum health care for AI/ANs eligible for IHS-funded services?—requires three prior analytical decisions before it can be answered with precision. The first is the population decision: who counts as eligible? The second is the benchmark decision: what does “full spectrum” health care cost per person? The third is the offset decision: which existing funding streams count against the need estimate? Each embeds a policy judgment, not merely a technical choice.

Estimation Logic (Summary): Current federal spending (~\$19.6B) → Implied per-capita spending (~\$7,500 per active user) → National per-capita benchmark (~\$14,500 NHE 2023) → Total need (~\$37.7B) → Funding gap (~\$17.8–18.0B annually). This flow is anchored in observed spending, not constructed need. Sections 2–5 develop each component in turn.

2. The Population Denominator

Three population concepts appear in the Indian health financing literature, each with a distinct analytical rationale. Table 1 summarizes the key distinctions.

Table 1. IHS Population Concepts and Analytical Uses

Population Concept	Count	Source	Analytical Use
IHS Active Users	~2.0–2.1M	IHS Congressional Budget Justifications	Per-capita spending denominator; reflects funding-constrained utilization

IHS Service Population	~2.6M	IHS CJ / NIHB 2022 Budget Formulation	Eligibility-based full-need denominator; recommended for full-funding estimates
IHS-Access Medicaid Enrollees	941,168	2023 CMS–IHS Data Match	Best-verified subset; basis for Medicaid expenditure estimates
IHS-Access with No CMS Coverage	~778,000 (~51%)	ACS 5-Year PUMS 2024 × Data Match	Population whose care falls entirely on IHS appropriations and PRC

The active user population (~2.0–2.1 million) understates true eligibility—it counts utilization under a rationed system, not the full eligible population. The service population (~2.6 million) is the appropriate denominator for a full-need estimate. The 2023 CMS–IHS Data Match (941,168 IHS-access Medicaid enrollees) is the right denominator for Medicaid-specific analyses. The primary estimate in this paper uses the 2.6 million service population.

Note: Active user counts reflect funding-constrained utilization, not the eligible population. Because IHS cannot serve all eligible individuals under current appropriations, active user figures systematically understate the population that would seek services under full funding. Section 6.1 analyzes this utilization artifact problem in detail.

3. The Full-Spectrum Benchmark

The standard benchmark for “full-spectrum health care” in the Indian health policy literature is the CMS National Health Expenditure per-capita rate. This analysis does not rely on a single benchmark; it uses NHE as the midpoint of a defensible range. The Medicaid-like per-capita rate functions as a floor (minimum obligation); the unadjusted NHE average functions as the midpoint (parity standard); and an NHE rate adjusted upward 20% for documented AI/AN disease burden functions as the ceiling (actuarially appropriate obligation). The primary estimate in this paper uses the unadjusted NHE midpoint as a conservative, transparent, and widely-recognized standard. Table 2 presents the relevant NHE benchmark values.

Table 2. Per-Capita Benchmark Values and IHS Actual Spending

Benchmark	Per Capita	Source	Notes
2018 NHE (NIHB brief)	\$11,172	CMS NHE	Used in NIHB \$29.05B full-funding calculation; 2018/2019 vintage
2022 NHE	\$13,493	CMS NHE	IHS funded at ~30¢/dollar; basis for ~\$37.8B estimate in prior analyses
2023 NHE (estimated)	~\$14,500	CMS NHE (est.)	Most current; used in primary full-need calculation in this brief
IHS FY 2023 Actual Per User	\$4,078	IHS Profile FY2023	Reflects rationed system; ~28% of 2023 NHE benchmark

The NHE per-capita rate grew from \$11,172 in 2018/2019 to an estimated ~\$14,500 in 2023. Using the 2023 benchmark increases the full-need estimate by approximately \$9 billion relative to the NIHB’s prior calculation. Three cautions warrant acknowledgment: the NHE is not age-adjusted; it does not account for the AI/AN population’s above-average chronic disease burden; and it is a realized-spending figure, not a sufficient-care figure.

4. Current Federal Investment: The Offset Framework

Table 3 presents the current federal investment framework.

Table 3. Current Federal Investment in AI/AN Health Care (Estimated, FY 2023)

Funding Stream	Population	Annual Amount	Source / Notes
IHS Appropriations (FY 2023)	~2.0–2.1M active users	~\$8.6B	IHS Congressional Budget Justification

Medicaid — IHS-Access Population (Pop. A)	941,168 enrollees	\$6.4–6.6B	2023 CMS–IHS Data Match
Medicaid — Non-IHS-Registered AI/AN (Pop. B)	~est. subset	~\$1.88B	15-state reconciliation; Fox (2023)
Medicare — IHS-Access Population	~260,131 (ACS-estimated)	~\$2.64B	ACS PUMS × NHE Medicare PMPY
Other Federal (SAMHSA, CDC, NIH, VA)	Various	< \$0.2B	NIHB Budget Formulation estimate
TOTAL ESTIMATED FEDERAL INVESTMENT	—	~\$19.3–19.9B (midpoint \$19.6B)	~54% of full-need estimate at 2023 NHE benchmark

Because IHS facilities bill Medicaid at 100% FMAP, every dollar of Medicaid revenue flowing to an IHS or tribal facility is a fully federal dollar—there is no state match. The combined federal investment midpoint of approximately \$19.6 billion covers roughly 52% of the \$37.7 billion full-need estimate.

5. The Full-Funding Gap: Primary Estimate

Table 4 presents the primary full-funding gap calculation using the 2.6 million service population, the 2023 NHE benchmark of ~\$14,500 per capita, and the current federal investment framework from Table 3.

Table 4. Full-Funding Gap Calculation (Primary Estimate, 2023 Base Year)

Component	Calculation	Amount
Full-spectrum annual need — 2.6M service population × 2023 NHE	2,600,000 × \$14,500	~\$37.7 billion
Less: IHS appropriations	Current FY 2023	(\$8.6B)
Less: Medicaid (Population A + B combined)	Data Match + 15-state est.	(\$8.5B)
Less: Medicare (IHS-access, ACS-estimated)	ACS PUMS × NHE PMPY	(\$2.6B)
Less: Other federal sources	NIHB estimate	(\$0.2B)
ANNUAL FUNDING GAP	—	~\$17.8–18.0 billion/year
Infrastructure investment (phased, 10–15 year period)	2021 Facilities Needs Assessment	~\$26–\$30 billion

The annual funding gap of approximately \$17.8–\$18.0 billion represents what Congress would need to appropriate annually, above current levels, to achieve full-spectrum health care for the IHS service population. The 2021 IHS Facilities Needs Assessment documents \$26.6 billion in documented facility need; inflation-adjusted to 2026 and including UIO needs, the full infrastructure requirement is approximately \$30–\$34 billion.

This paper uses the Federal Budget View as its primary framework. Readers should be explicit about which framework they are invoking when citing gap estimates: the three frameworks are not inconsistent — they are complementary answers to different questions.

The gap estimates above can be read through three distinct accounting frameworks, each analytically valid but answering a different policy question. Conflating them is a common source of confusion in the full-funding literature; explicitly separating them strengthens the credibility of any estimate.

5A. Three Accounting Frameworks

Federal Budget View. Counts all current federal spending — IHS appropriations plus Medicaid and Medicare — as partial fulfillment of the obligation. Produces the ~\$17.8–\$18.0B gap estimate in Table 4. This is the primary estimate in this paper. It answers the question: what incremental appropriation would close the gap if existing Medicaid and Medicare investments are held constant?

Trust Responsibility View. Treats Medicaid as a supplemental program — not a fulfillment of the independent federal trust obligation — and excludes it from the offset calculation. Produces a gap of approximately \$26–\$27B annually (see Section 6.3). This is the framing most consistent with longstanding Tribal legal argument that the trust responsibility is an unconditional federal commitment, not reducible by programs that require individual application and income documentation.

Health System Resource View. Counts all health spending flowing to AI/AN people — federal, state, Tribal own-source, and private — to assess system resource adequacy. This is the analytically most complete view and produces the smallest apparent gap, but it conflates funding sources with different legal and governance character. It is most useful for health system planning and capacity analysis. The Tribal own-source contribution (estimated at \$1.2–\$3.0B annually; see Section 8.1) and the private insurance layer visible in the ACS PUMS data both belong to this view.

This paper uses the Federal Budget View as its primary framework. Readers should be explicit about which framework they are invoking when citing gap estimates: the three frameworks are not inconsistent — they are complementary answers to different questions.

6. Methodological Challenges

6.1 The Utilization Artifact Problem

IHS per-capita spending of \$4,078 per active user reflects a system in which access is rationed by funding constraints. The active user count of 2.0–2.1 million is not the number of people who would seek IHS services under full funding; it is the number who received services under the current rationed system. Full-funding estimates that rely on current utilization data will systematically understate true need.

6.2 The Benchmark Selection Problem

The AI/AN population has substantially higher rates of diabetes, end-stage renal disease, chronic liver disease, substance use disorders, and other conditions that generate above-average health care costs. The appropriate benchmark may be 15–25% above the NHE average. Conversely, the AI/AN population's younger age structure (lower life expectancy) partially offsets this, leaving the unadjusted NHE rate as a reasonable central estimate.

6.3 The Insurance Offset Question

Medicaid enrollment requires individual application, income documentation, and ongoing eligibility maintenance—administrative burdens structurally inconsistent with the trust responsibility's premise that health care is owed to AI/ANs as a matter of right. Tribal nations have consistently argued that Medicaid should be treated as a supplement to the trust responsibility, not a substitute for it. If this framing is adopted and Medicaid revenues are excluded from the offset calculation, the effective federal funding gap increases by approximately \$8.5 billion annually—the combined Medicaid component from Table 3—yielding a total gap on the order of \$26–\$27 billion relative to the NHE benchmark. This scenario represents the normative upper bound of the funding gap and corresponds most closely to the legal theory of the federal trust obligation as an independent, unconditional commitment.

6.4 Note on Measurement Completeness: Contract Support Cost Indirect Funding

Federal appropriations for Contract Support Costs represent a fourth methodological limitation. CSC funds the administrative overhead costs that Tribes incur when assuming operation of IHS programs under P.L. 93-638. The downstream health care expenditure that results when Tribal employer health insurance—funded through CSC indirect costs—pays claims for covered employees is invisible to every data source used to construct Table 3. This creates an asymmetric measurement problem: the federal dollars originating in CSC are counted as federal investment on the input side, but the health care services those dollars purchase through employer insurance are not counted as federal health expenditure on the output side.

A rough structural calculation suggests a range of perhaps \$85–\$100 million in employer health insurance premiums funded through CSC indirect costs annually, but this figure carries enough methodological uncertainty to render it more illustrative than analytical. The directional implication is clear: Table 3 most likely understates total federal health investment for IHS-eligible individuals, and the annual funding gap estimated in this paper is therefore likely slightly overstated. Readers should not treat this as a material adjustment to the primary gap estimate;

the CSC indirect health care channel is structurally real but too uncertain to quantify reliably from available data.

7. Sensitivity Analysis

Table 5 presents five scenarios spanning the range of defensible analytical choices. No reasonable combination of population, benchmark, or offset assumptions eliminates the funding gap; the result is structurally robust.

Table 5. Sensitivity Analysis: Full-Need and Gap Estimates Across Key Assumptions

Scenario	Population	NHE Benchmark	Full Need	Gap (after offsets)
NIHB (2021 brief)	2.6M service pop.	\$11,172 (2018/19)	\$29.1B	~\$9.5B
2022 NHE baseline	2.6M service pop.	\$13,493 (2022)	\$35.1B	~\$15.4B
2023 NHE (primary)	2.6M service pop.	~\$14,500 (2023 est.)	~\$37.7B	~\$17.8B
Active user denominator	2.1M active users	~\$14,500 (2023 est.)	~\$30.5B	~\$10.9B
Elevated need adjustment (+20%)	2.6M service pop.	\$17,400 (NHE +20%)	~\$45.2B	~\$25.6B

Note: Gap figures are net of current federal investment (~\$19.6B midpoint). Elevated need scenario applies a 20% premium above NHE to reflect documented AI/AN disease burden. Offsets held constant across scenarios.

7A. Why This Estimate Is Credible

A technically rigorous reviewer will ask whether the gap estimate is an analytical artifact — a product of contestable assumptions rather than a reflection of structural reality. The following features of this analysis address that challenge directly.

Anchored in observed spending. The primary estimate begins with actual federal expenditure data (~\$19.6B), not a constructed need figure. The gap emerges from comparing observed spending to a national benchmark — it is not assumed in the model's inputs.

Uses a standard, widely-recognized benchmark. The NHE per-capita rate is published by CMS, used in prior NIHB analyses, and familiar to OMB, CBO, and Congressional staff. Its use is transparent and reproducible.

Produces a bounded range, not a point estimate. Table 5 spans \$29–\$45B in full-need estimates across five scenarios. The gap persists under every scenario. Presenting a range is analytically stronger than a single figure: it demonstrates that the conclusion does not depend on the most favorable assumptions.

Conservative by design. The primary estimate uses unadjusted NHE rather than the disease-burden-adjusted ceiling. It does not add Tribal own-source expenditures to the gap. It does not fully account for the utilization artifact (Section 6.1). On every dimension where a judgment call was required, this analysis chose the more conservative direction. The primary estimate is therefore more likely to understate true need than overstate it.

Likely understates total need. The utilization artifact (Section 6.1), the non-enrolled descendant population, the urban AI/AN population outside IHS-access boundaries, and the Tribal own-source phenomenon all point in the same direction: the \$17.8–\$18.0B estimate is a floor, not a ceiling. This is a known, named bias — and it runs against, not for, the paper's policy conclusion.

8. The Uninsured Concentration Problem

The funding gap is structurally concentrated in the uninsured population, whose care is financed almost entirely through discretionary IHS appropriations and the Purchased/Referred Care program. This concentration is not incidental; it explains why the gap exists, why PRC rationing occurs, and why Medicaid expansion did not resolve the IHS appropriations shortfall. Approximately 778,000 individuals — roughly 30% of the 2.6M IHS service population and 51% of the IHS-access population — have no CMS coverage. For this population, every dollar of underfunding translates directly into denied or deferred care: when PRC funds are exhausted, referrals for specialty care, hospitalization, and services outside IHS's direct-care capacity are denied.

8.1 Tribal Own-Source Expenditures: An Unmeasured Cost of Federal Underfunding

Tribes are employers. Because IHS cannot provide comprehensive coverage for the working-age population, Tribes acting as employers must purchase commercial health insurance for their employees. This is not a voluntary benefit decision; it is a structural consequence of IHS underfunding. The funding source for these premiums is Tribal own-source revenue: gaming proceeds, enterprise income, land-use fees, and federal contract and compact dollars. Every dollar spent on employee health insurance premiums is a dollar not available for housing, education, language preservation, economic development, or other exercises of Tribal sovereignty.

Federal underfunding of IHS thus imposes a direct and recurring fiscal cost on Tribal governments that does not appear in any federal budget document, any CMS data system, or any published estimate of the IHS funding gap. The Table 4 gap therefore understates the true cost of IHS underfunding to Tribal governments, even if it accurately describes the federal investment shortfall. Tribal own-source spending on employee health care is not a legitimate offset against the federal trust obligation. A rough order-of-magnitude estimate illustrates the

scale: approximately 240 Tribes operate health programs under P.L. 93-638 compacts or contracts. Tribal workforces across these programs—inclusive of health, administrative, and enterprise employees—likely total 150,000 to 250,000 covered workers. At a conservative employer premium contribution of \$8,000–\$12,000 per covered employee annually (consistent with 2023 KFF Employer Health Benefits Survey benchmarks), aggregate Tribal own-source health insurance expenditures are on the order of \$1.2–\$3.0 billion annually. This broad estimate has two methodological limitations that likely cause it to overstate the trust-responsibility-relevant component. First, Tribal workforces include substantial numbers of non-AI/AN employees — particularly in gaming enterprises, hotels, and other Tribal businesses — for whom employer-paid premiums carry no trust responsibility implications. Second, Contract Support Costs reimburse administrative overhead for P.L. 93-638 health and government programs specifically; enterprise employees are funded from gaming and enterprise revenue, not CSC, and conflating the two overstates the CSC-adjacent workforce. Limiting attention to AI/AN employees of Tribal government and health programs — the population most directly relevant to the trust responsibility — and applying a conservative AI/AN workforce share of approximately 50%, the trust-responsibility-relevant own-source expenditure is on the order of \$400–\$900 million annually. This adjusted range is a conservative floor: it excludes non-AI/AN employees and enterprise-funded workforces, and it is still structurally rough and not directly verifiable from published sources. Its order of magnitude — hundreds of millions, not billions — remains material and warrants recognition in any comprehensive accounting of the true cost of federal underfunding. The broader \$1.2–\$3.0B figure remains illustrative of total Tribal employer health expenditure but should not be cited as the trust-responsibility gap without this adjustment.

9. Toward a Policy Response

The analysis supports several policy conclusions. First, the scale of the funding gap—approximately \$17.9 billion annually—is not closeable through incremental appropriations increases. Annual IHS appropriations grew by roughly \$5 billion over thirteen years (FY 2010 to FY 2023); closing the \$17.9 billion remaining gap at that rate would take several decades while the NHE benchmark continues to rise. Second, the NIHB glide path (50% annual increases for three years, then 25% for three years, then 5.5% indefinitely) is analytically justified as a minimum pace of change consistent with closing the gap within a policy-relevant timeframe. Table 6 below applies the NIHB glide path to the FY 2023 IHS appropriations base and compares the resulting funding trajectory against the full-need benchmark. Third, the mandatory funding framing—converting IHS from a discretionary appropriation to an entitlement-structured program—addresses a structural problem that incremental appropriations cannot solve. Fourth, the infrastructure investment required must be treated as a separate, parallel investment track. Fifth, Tribal sovereignty requires that Tribes ultimately define the scope and structure of “full-spectrum” services in their communities.

Table 6. NIHB Glide Path Applied to IHS Appropriations (FY 2023 Base = \$8.6B)

Year	Increase Rate	IHS Appropriation	Total Federal Investment (est.)	vs. Full-Need Benchmark (~\$37.7B)
FY 2023	Base year	\$8.6B	~\$19.6B	52% of benchmark
Y+1	+50%	\$12.9B	~\$23.9B	63% of benchmark
Y+2	+50%	\$19.4B	~\$30.4B	81% of benchmark
Y+3	+50%	\$29.1B	~\$40.1B	106% — gap closed
Y+4	+25%	\$36.4B	~\$47.4B	126% (sustaining)

Note: IHS appropriation column applies NIHB glide path rates to the \$8.6B FY 2023 base. Total Federal Investment column adds Medicaid (~\$8.5B) and Medicare (~\$2.5B) held constant. Benchmark (\$37.7B) does not adjust for NHE growth over the period; actual full-need will rise. Gap closure at Y+3 assumes IHS appropriations grow while CMS components remain stable—a conservative assumption that understates the impact of concurrent Medicaid enrollment growth.

10. Summary

The total annual cost of full-spectrum health care for the 2.6 million AI/ANs eligible for IHS-funded services, benchmarked to 2023 National Health Expenditure per-capita rates under NHE-parity assumptions, is estimated at approximately \$37–\$38 billion. Current combined federal investment totals approximately \$19.6 billion, covering roughly 52% of full need under this framework. The remaining annual funding gap is approximately \$17.8–\$18.0 billion. A separate infrastructure investment of approximately \$30–\$34 billion is required over a 10–15 year period.

The question this paper addresses has a defensible answer. The United States currently provides approximately 52 cents for every dollar of health care that the IHS service population would receive at national per-capita rates. Providing the remaining 48 cents—approximately \$17.9 billion annually in additional services funding under the NHE-parity framework, plus \$30–\$34 billion in infrastructure investment over 10–15 years—represents the analytically estimated cost of honoring the federal trust responsibility in full under the assumptions of this analysis.

Note on Scope: The Urban Population

The full-funding estimate in this paper is anchored to the IHS-access population — enrolled Tribal citizens who use IHS direct-service or P.L. 93-638 Tribal facilities. That population represents the analytical core of the trust responsibility obligation. It does not, however, encompass the 62% of enrolled Tribal citizens who reside outside tribal homelands — a geographically heterogeneous population that includes rural border towns, small cities, and large metropolitan areas. Those in urban centers may be served by Urban Indian Organizations (UIOs) funded under Title V of the Indian Health Care Improvement Act, though UIOs do not serve the full off-homeland population. The financing structure for that population — the FMAP disparity, the OMB rate gap, the structural differences between UIOs and the other two pillars of the nominal I/T/U system — is addressed in Paper VI, *Urban Indian Health Programs and the Indian Health Non-System: A Structural Analysis*. The trust responsibility obligation established here does not cease at the IHS-access boundary; it follows enrolled citizens into cities. What

that obligation requires in the urban context, and how it differs from what this paper addresses, are questions the series treats as analytically distinct but equally grounded in federal law.

The funding adequacy framework developed here is anchored to the IHS-access population, reflecting both the structure of available data and the historical focus of federal policy. However, this framework leaves unresolved a critical question: how does the federal trust responsibility apply to enrolled Tribal citizens who live outside IHS service areas — the 62% who reside beyond tribal homeland boundaries? The following papers examine the urban Indian health system, where this question becomes unavoidable and where the limitations of the current financing structure are most visible.

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