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Treaty and Trust Responsibility Funding Trends in Indian Country: Focus on the Indian Health Service

By: Cleve Davis1



Photograph of the Not-tsoo Gah-nee Indian Health Center on the Fort Hall Indian Reservation in southeastern, Idaho. The Not-tsoo gah-nee is a typical example of an Indian Health Service clinic and part of a network of over 605 hospitals, clinics, and health stations located on or near Indian Reservations. Photograph by the author.

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Abstract

The federal government has a unique relationship with American Indians and Alaska Natives and part of this relationship is to provide support and protection as a treaty and trust responsibility. This study focused upon the federal commitment to health care delivery in the United States by examining total and program level funding overtime to the Indian Health Service. The study made comparisons with other health care spending priorities in the United States to understand how funding to the Indian Health Service ranks. Based upon the Department of Health and Human Services' fiscal year congressional justifications, funding to the Indian Health Service has increased since 2007. However, the total spending amounts to a mere \$2,485 per American Indian/Alaska Native person and total dollars allocated per American Indian/Alaska Native person was lowest among all groups examined. Low health care spending by the United States contributes to the disproportionally higher death rate among the American Indians and Alaska Natives population. The comparatively low level of fiscal appropriations to the Indian Health Service despite the high need raises questions about equality, democracy, and representation within the federal health care system and its ability to meet those needs.

Key Words: Health, Indian Health Service, American Indians, Alaska Natives, Treaty, Trust, Funding

Introduction

Through treaties, agreements, court cases, and legislation the United States (U.S.) has charged itself with providing support and protection of American Indians and Alaska Natives (AI/AN). Support and protection has become known as "treaty and trust responsibilities" (Washburn 2017, 200). In general, treaty and trust responsibilities (TTR) have been acknowledged and accepted to an extent as contractual obligations between AI/AN and the U.S. However, the commitment level of the U.S. to fulfillment of TTR is debatable (Echo-Hawk 2010, 211, Stavin 2012, 743-744). Although various federal agencies and organizations (e.g., Department of the Interior) provide funding to meet TTR, this study focused upon health care delivery through the Indian Health Service (IHS). Therefore, the purpose of this study was to assess the commitment of the U.S. by analyzing total and program level fiscal funding trends to the IHS. The study also makes comparisons with other health care spending priorities in the U.S. to compare how TTR funding ranks in priority.

The IHS is an agency within the Department of Health and Human Services and is responsible for providing federal health services to AI/AN through a network of hospitals, clinics, and health stations on

or near Indian reservations (Department of Health and Human Services 2019, CJ-1). The mission of the IHS is, "to raise the physical, mental, social, and spiritual health of [AI/AN] to the highest level" (U.S. Department of Health and Human Services n.d.). The vision of the IHS is to have "healthy communities and quality health care systems through strong partnerships and culturally responsive practices" (U.S. Department of Health and Human Services n.d.). The IHS provides clinical, public health, community and facilities services to AI/AN who are members of 573 federally recognized Tribes within the U.S. The authority for the U.S. to provide health services to AI/AN is recognized under the Snyder Act of 1921 (Department of Health and Human Services 2018, 8), and many Treaties between Indigenous peoples and the U.S. Currently, the IHS supports and serves a network of 850 hospitals, clinics and health stations on or near Indian reservations (Department of Health and Human Services 2018, 8). Although many of these facilities are in rural locations, the IHS also provides grants and contracts to 40 urban Indian 501(c)(3) non-profit organizations that provide health care and referral services for urban Indians throughout the U.S. Therefore funds, facilities, and services provided to AI/AN can be managed by the IHS, Tribal, and urban Indian health programs.

Methods

Fiscal spending to meet TTR were obtained from congressional budget justifications produced by the <u>Department of Health and Human Services</u>. Budget figures listed in the *All Purpose Tables* from the justifications were entered into a Microsoft Access database and analyzed with R: A Language and Environment for Statistical Computing (R Core Team 2017). With the exception of three calculation errors, possibly due to rounding, budgetary figures published by the Department of Health and Human Services reconcile. The program level total errors were observed in the *All Purpose Tables* for FY 2010 (-\$2,000), FY 2013 (-\$2,000), and FY 2020 (-\$1,000).

Except for fiscal year (FY) 2020 and 2019, budgetary appropriations listed two years prior were utilized for funding appropriation. This was done because the President's budget requests, and prior year budgets vary due to Congressional enactment. Thus, budget figures identified two years prior are considered final budgets and more accurately represent final appropriations.

Inflation and Trends

Inflation was accounted for by converting IHS budget figures to 2019 constant dollars using the Consumer Price Index (CPI) of the U.S. Department of Labor Bureau of Labor Statistics (Bureau of Labor Statistics 2019). The CPI for May 2019 (494.928) for "Medical care in U.S. city average, all urban consumers, not seasonally adjusted" was used to adjust inflation for the IHS budget figures. Unless, otherwise noted all dollar figures are reported as 2019 constant dollars.

Some budget trends and population sizes clearly followed a line, and in these instances Ordinary Least Squares regression (OLS) was used to fit a linear model with a response variable (i.e., budget figure, population size) from a predictor variable (i.e., year). Regarding fiscal budgets, OLS regression was done to visualize a simplified funding trend.

American Indian/Alaska Native Service Population

Although there are many ways to analyze fiscal appropriations, a simple method to examine appropriations is by dividing the total dollar amount by the population size of people it is to serve. This method of inquiry is artificial as a large amount of the funding is dedicated to administrative costs,

construction, medical professional services, etc. Nonetheless, per capita appropriations on a national scale is one way to represent a commitment level of the U.S. to TTR. This method differs than IHS's Level of Need Funded (LNF) Calculation (Indian Health Service 2018) which uses a count of AI/AN individuals with at least one encounter in the IHS/Tribal health care system during a 3-year period.

It should also be noted that the IHS is not required to provide services to the larger self-identified AI/AN population of 5,487,131 reported by the U.S. Census Bureau (United States Census Bureau 2017). Obligations of the TTR are to those AI/AN who are enrolled members of the 573 federally recognized tribes, nations, bands, pueblos, communities, and native villages. Therefore, the service population estimates provided in the Bureau of Indian Affairs (BIA) American Indian Population and Labor Force Reports[†] were used to identify the service population of AI/AN for the years in which there was no information available. Service population predictions were made using OLS regression modelling population size by year.

Based upon this information, the 2019 service population of AI/AN was estimated to be 2,403,251 (Figure 1), and the service population of AI/AN who receive services as part of a TTR grows by 48,905 people per year. The service population size for years without a census were estimated using linear regression to determine dollars spent per capita. Figure 1 depicts a plot of census figures made by the BIA and the linear regression line to predict populations by year for per capita estimations. It should also be noted that the IHS has also published service population estimates in 2014 (U.S. Department of Health and Human Services 2014, 26). Although the IHS estimations are close to those reported by the BIA, they were not used because the predictions were based upon a self-identification process and obsolete data for 1999 and 2000. The methodology used by the BIA was considered more reliable as it was based upon the tribe's estimate of all AI/AN who live on or near its reservation or community who are eligible to use BIA-funded services, not to mention it is based upon more recent data.

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[†]Definitions and methodologies used by the BIA to estimate the service population can be found the following reports: U.S. Department of the Interior Bureau of Indian Affairs 1995, 2, U.S. Department of the Interior Bureau of Indian Affairs Office of Tribal Services 1999, 1, Department of the Interior Bureau of Indian Affairs 2001, ii, U.S. Department of the Interior Bureau of Indian Affairs Office of Tribal Services 2003, ii, United States Department of the Interior Bureau of Indian Affairs Office of Indian Services 2005, iv, U.S. Department of the Interior, Office of the Secretary Office of the Assistant Secretary – Indian Affairs 2013, 10.

Al/AN Service Population

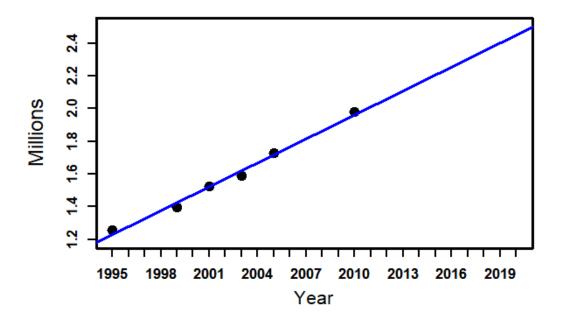


Figure 1. Yearly plot of service population of American Indians/Alaska Natives (AI/AN). Black dots represent published census figures of service population size by the BIA's American Indian Population and Labor Force Reports. Blue line represents linear regression line used to predict the service population size for years without a service population census.

Budget Authority Totals

A plot of the total IHS budget authority with (solid dashed line) and without (black dashed line) collections[‡] is provided in Figure 2. The total IHS budget authority requested for the FY 2020 is \$7,296,645,000 with collections and \$6,094,568,000 without collections. Although collections represent a significant portion of the IHS total budget authority, it is arguable whether collections should be counted as TTR spending as a large majority of collections are derived from public third-party insurers. The slope of the IHS budget authority with collections is greater than the slope without collections. This is indicative of an increased reliance upon third-party insurers, especially Medicaid and Medicare. Analysis using linear regression estimates the total budget authority of the IHS with collections grows at a rate of \$335,521,000 per year, without collections the budget authority grows at a rate of \$278,261,000 per year.

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[‡] The Indian Health Care Improvement Act allows the IHS to collect reimbursements from Medicare, Medicaid, private insurance, Department of Veterans Affairs (VA), and staff quarters. In FY 2018, the IHS reports that \$1.056 billion was collected from Medicare and Medicaid alone (Department of Health and Human Services 2019, 178). Collection estimates for the FY 2020 are based on 2018 actual collections (Department of Health and Human Services 2019, 178).

IHS Budget Authority

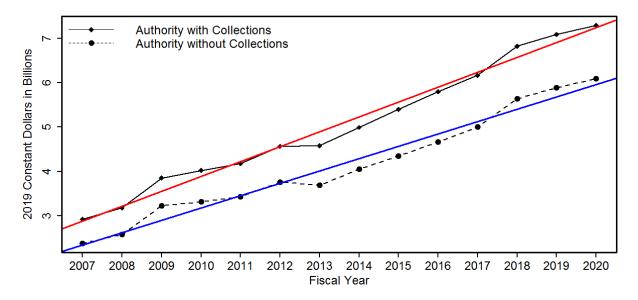


Figure 2. Total U.S. government wide spending of the Indian Health Service (IHS) with and without collections. Collections represent estimated reimbursements to the IHS from Medicare, Medicaid, private insurance, staff quarters, and the Department of Veterans Affairs. The red line is a best-fitting linear regression line modelling total IHS budget authority with collections by year. The blue line represents best-fitting linear regression line modelling total IHS budget authority without collections by year. The total IHS budget authority requested for the FY 2020 was \$7,296,645,000 with collections and \$6,094,568,000 without collections.

A plot of collections which includes Medicaid, Medicare, private insurance, staff quarters and Veterans Affairs reimbursements (VA) collected by the IHS is provided in Figure 3. At \$807,605,000 for FY 2020, Medicaid is by far the largest contributor to IHS's collections. Medicaid is funded jointly by the state and federal governments and provides health coverage to eligible low-income adults, pregnant women, elderly adults and people with disabilities. It is administered by states in accordance to federal requirements and the single largest source of health coverage in the United States. The second highest collection provider is Medicare and it is estimated that IHS will capture \$248,638,000 in FY 2019. Medicare is also a federal health insurance program available to all eligible/qualified U.S. citizens or legal residents over the age of 65, certain young people with disabilities, and people with End-State Renal Disease. The IHS anticipates it will capture \$109,272,000 from private insurance in FY 2019. Combined the IHS estimates that Medicaid, Medicare, and private insurance collection for FY 2019 will amount to \$1,165,515,000. Collections from staff quarters and VA reimbursements represent only a minor amount of the IHS collection total at a combined amount of \$36,562,000.

IHS Collections

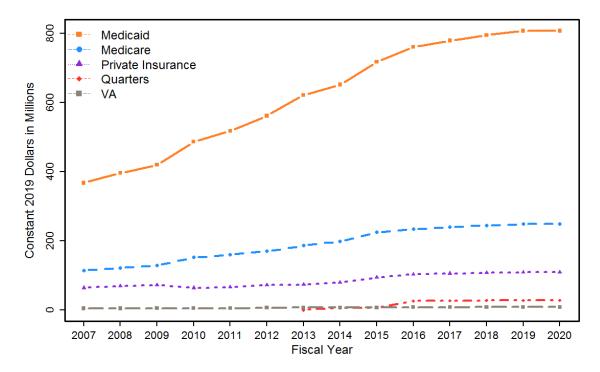


Figure 3. Collections made by the Indian Health Service (IHS) that contributes to the IHS total budget authority. Medicaid, Medicare, and private insurance represent third party health insurance providers for eligible AI/AN. The IHS estimates that Medicaid, Medicare, and private insurance will provide \$1,165,515,000 to the total budget authority of the IHS for FY 2020. Quarters represent rent collected by the IHS and returned to the service unit for quarters maintenance and operation. The Department of Veterans Affairs (VA) reimburses the IHS and tribal facilities for direct care services provided to eligible AI/AN veterans (Department of Health and Human Services 2018, CJ-5). Collections from staff quarters and VA reimbursements combined amount to \$36,562,000.

Collections made by the IHS are available to the general public. Therefore, these funds do not represent funding allocation by the U.S. to meet TTR. In fact, requiring or encouraging AI/AN who may be eligible for Medicaid and Medicare may be an indication that the IHS funding to meet its mission "to raise the physical, mental, social, and spiritual health of American Indians and Alaska Natives to the highest level" is inadequate. Increased reliance upon collections by the IHS stresses the importance of AI/AN involvement with the development and changes to Medicaid and Medicare funding levels and legislation.

Indian Health Service Program Level Funding Trends

IHS program level funding trends were ordered by average funding amount per year and depicted with plots to show total funding amount in constant 2019 dollars by year. Since 2007 there have been a total of 24 major programs funded by the IHS. This section discusses program level funding trends from highest to lowest and does not include collections.

IHS Funding Rank 1st, 2nd, 3rd

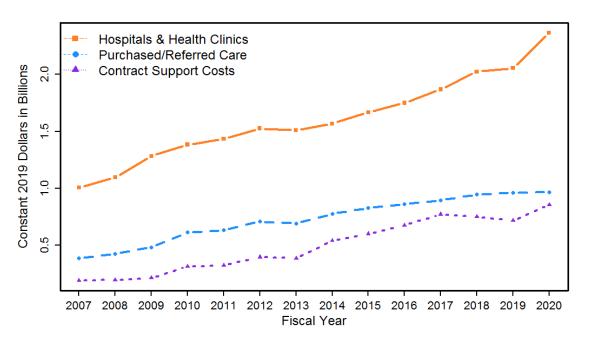


Figure 4. The top three programs funded by the Indian Health Service arranged in decreasing order include: Hospitals & Health Clinics (HHC), Purchased/Referred Care (PRC), and Contract Support Costs (CSC). For the Fiscal Year 2020, the President of the United States requested a total of \$2,363,278,000 for HHC, \$968,177,000 for PRC, and \$855,000,000 for CSC programs.

The three IHS programs that receive the highest level of funding on average include: Hospitals & Health Clinics (HHC), Purchased/Referred Care (PRC), and Contract Support Costs (CSC). A plot of HHC, PRC, and CSC over time is provided in Figure 4. For FY 2020, the President requested a total of \$2,363,278,000 for HHC. HHC funding provides health services, disease prevention, and health promotion services (Department of Health and Human Services 2018, CJ-70). Using linear regression, the HHC fiscal budget grows at a rate \$88,515,000 per year. For FY 2020, a total of \$968,177,000 was requested for PRC, which will be used to purchase health care services not available at the IHS and Tribal healthcare facilities. Funding for PRC is estimated to grow at a rate \$46,506,000 per year. For FY 2020, a total of \$855,000,000 was requested for CSC. CSC are defined as necessary and reasonable costs for activities that Tribes or Tribal Organizations (T/TO) must carry out to ensure compliance with Indian Self-Determination and Education Assistance Act P.L. 93-638 contracts (Department of Health and Human Services 2018, CJ-201). Although funding for CSC has been less than PRC, annual fiscal increases in CSC has been growing at a higher rate than PRC at \$54,709,000 per year. For CSC, the IHS

states that T/TO "receive not less than the amount of funding that the Secretary [U.S. Department of Health and Human Services] would have otherwise provided for the direct operation of the program for the period covered by the contract (Department of Health and Human Services 2019, CJ-197). Although it is not clear how much the Secretary of U.S. Department of Health and Human Services would request, the amount is referred to as the "Secretarial amount". The 1988 amendments to the Act authorized CSC be paid in addition to the Secretarial amount (Department of Health and Human Services 2019, CJ-197).

IHS Funding Rank 4th, 5th, 6th, 7th

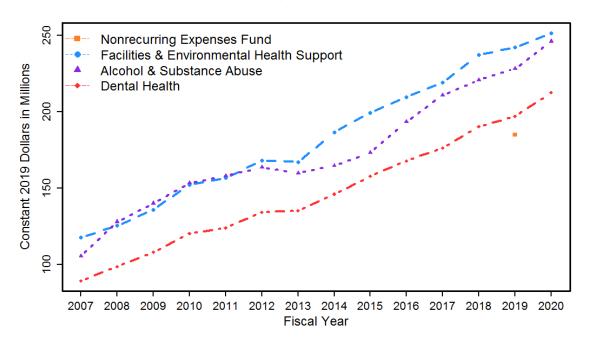


Figure 5. Indian Health Service programs arranged in decreasing order and ranked 4th-7th by mean funding level include: Nonrecurring Expenses Fund (NEF), Facilities & Environmental Health Support (FEHS), Alcohol & Substance Abuse (ASA), and Dental Health (DH). Congress requested \$185,000,000 in Fiscal Year (FY) 2018 to transfer unobligated funds into the NEF account for IHS information technology and facilities improvements. For the Fiscal Year 2020, the President of the United States requested a total of \$251,413,000 for the FEHS, \$246,034,000 for ASA, and \$212,370,000 for DH programs.

A plot of Nonrecurring Expenses Fund (NEF), Facilities & Environmental Health Support (FEHS), Alcohol & Substance Abuse (ASA), and Dental Health (DH) over time is provided in Figure 5. The request to transfer \$185,000,000 of unobligated balances of the IHS into the NEF account was made in 2018 (Department of Health and Human Services 2019, CJ-245). The NEF is used by Congress for capital acquisitions, in this case to acquire information technology and the replacement, renovation, and expansion of facilities. The FEHS program is the 5th highest funded program of the IHS and the requested budget for FY 2020 was at \$251,413,000. This program is used to fund leadership and staffing who provide facilities and environmental health services, as well as the operating costs associated with the provision of those services and activities (Department of Health and Human Services 2018, CJ-173). The 6th highest funded program is ASA with a FY 2020 requested budget of \$246,034,000. ASA is used to raise the behavioral health status of AI/AN communities to the "highest possible level through a comprehensive array of preventive, educational, and treatment services that are community-driven and culturally competent" (Department of Health and Human Services 2018, CJ-116). DH provides basic diagnostic, emergency, preventive, and restorative care. However, more complex rehabilitative care (e.g.,

root canals, crowns, and bridges, dentures, and surgical extractions) are usually not covered by IHS (Department of Health and Human Services 2018, CJ-70). The President requested \$212,370,000 for DH for FY 2020.

IHS Funding Rank 8th, 9th, 10th

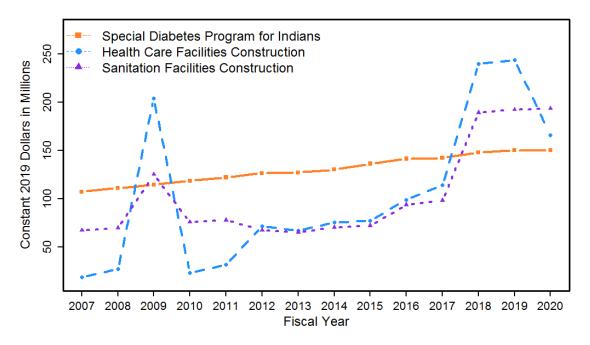


Figure 6. Indian Health Service programs arranged in decreasing order and ranked 8th-10th by mean funding level include: Special Diabetes Program for Indians (SDPI), Health Care Facilities Construction (HCFC), and Sanitation Facilities Construction (SFC). For the Fiscal Year 2020, the President of the United States requested a total of \$150,000,000 for SDPI, \$165,810,000 for HCFC, and \$193,252,000 for SFC programs.

A plot of Special Diabetes Program for Indians (SDPI), Health Care Facilities Construction (HCFC), and Sanitation Facilities Construction (SFC) over time is provided in Figure 6. Funding for the SDPI ranks 8th and the President requested a total of \$150,000,000 for FY 2020. The SDPI provides funding for treatment and prevention to approximately 301 IHS, Tribal and Urban Indian health grant programs (Department of Health and Human Services 2019, CJ-200). Overall funding for HCFC ranks 9th out of 24 major programs of the IHS. The President's budget request of \$165,810,000 for HCFC is \$77,670,000 million less than the FY 2019 budget. HCFC funds are used to construct IHS and tribally operated health care facilities and staff quarters where no suitable housing alternatives are available (Department of Health and Human Services 2018, CJ-183). The President's budget for SFC for FY 2020 is \$193,252,000 and ranks as the 10th highest funding priority for the IHS. Funds for SFC are used to provide water supply, sewage disposal, and solid waste disposal facilities (Department of Health and Human Services 2018, CJ-173). The spike in 2009 funding for HCFC and SFC was attributed to the 2009 American Recovery and Reinvestment Act investments by President Obama. Overall, funding trends for HCFC and SFC is variable with occasional increases and decreases, as well as plateaus.

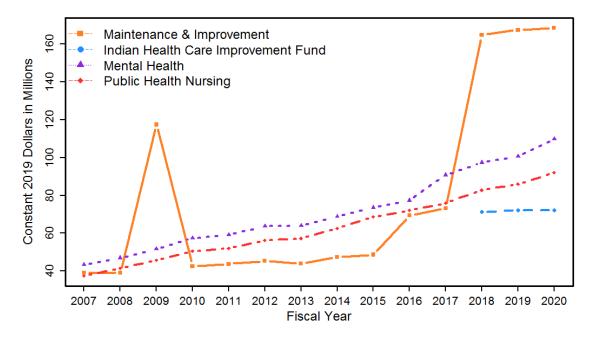


Figure 7. Indian Health Service programs arranged in decreasing order and ranked 11th-14th by mean funding level include: Maintenance & Improvement (MI), Indian Health Care Improvement Fund (IHCIF), Mental Health (MH), and Public Health Nursing (PHN). For the Fiscal Year 2020, the President of the United States requested a total of \$168,568,000 for MI, \$72,280,000 for IHCIF, \$109,825,000 for MH, and \$92,084,000 PHN programs.

A plot of Maintenance & Improvement (MI), Indian Health Care Improvement Fund (IHCIF), Mental Health (MH), and Public Health Nursing (PHN) over time is provided in Figure 7. IHS funding for MI ranks 11th, with a FY 2020 Presidential requested budget of \$168,568,000. MI dollars are used to maintain, repair, and improve existing IHS and Tribal health care facilities (Department of Health and Human Services 2018, CJ-175). Although \$72,280,000 was requested in FY 20202 for the IHCIF, little information was provided by the IHS about the program. Apparently, these dollars "may be used, as needed, to carry out activities typically funded under the Indian Health Facilities account" (Department of Health and Human Services 2019, CJ-15). The President also requested a total of \$109,825,000 for MH. MH dollars are used to support community-based clinical and preventive service programs that provides ongoing outpatient mental health counseling and access to dual diagnosis services, mental health crisis response and triage, case management services, community-based prevention programming, and outreach and health education activities (Department of Health and Human Services 2018, CJ-109). A total of \$92,084,000 was requested for PHN for FY 2020. PHN dollars are used to support prevention-focused nursing care interventions for individuals, families, and community groups as well as improving health status by early detection through screening and disease case management. Funding levels for MH and PHN programs have exhibited a steady increase in funding since 2007.

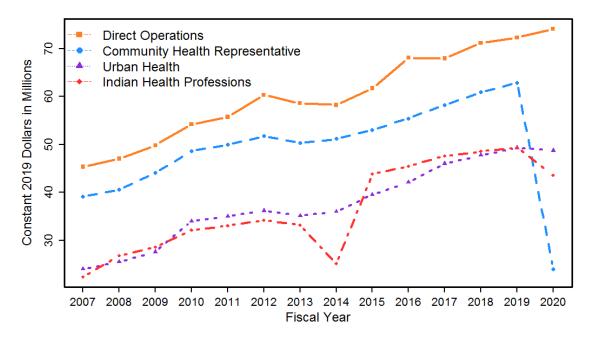


Figure 8. Indian Health Service programs arranged in decreasing order and ranked 15th-18th by mean funding level include: Direct Operations (DO), Community Health Representative (CHR), Urban Health (UH), and Indian Health Professions (IHP). For the Fiscal Year 2020, the President of the United States requested a total of \$74,131,000 for DO, \$24,000,000 for CHR, \$48,771,000 for UH, and \$43,612,000 IHP programs.

Direct Operations (DO), Community Health Representative (CHR), Urban Health, and Indian Health Professions (IHP) rank 15th-18th in total funding of the IHS. A plot of DO, CHR, UH, and IHP over time is provided in Figure 8. The FY 2020 President's Budget requested a total of \$74,131,000 for DO. DO dollars are used to fund agency-wide leadership, oversight, and executive direction for public and personal health care to AI/AN (Department of Health and Human Services 2018, 161). A total of \$24,000,000 was requested by the President for the CHR program in FY 2020, which is \$38,888,000 less than the previous year. The CHR program is used to help AI/AN patients and communities by promoting healthy living and disease prevention, wellness and injury prevention education, translation and interpretation, transportation to medical appointments, and delivery of medical supplies and equipment within tribal communities (Department of Health and Human Services 2018, CJ-139). The President requested a total of \$48,771,000 for the UH program in FY 2020. The UH program provides funding to 34 urban Indian 501(c)(3) non-profit organizations to provide health care and referral services for Urban Indians throughout the United States (Department of Health and Human Services 2018, CJ-147). The President's request for funding of the IHP program for FY 2020 is \$43,612,000. The IHP program is used to recruit and retain health professionals to provide health care and clinical services to AI/AN. The program is also used to increase the number of sites eligible to participate as National Health Service Corps (NHSC) approved sites for the NHSC Scholarship program and Loan Repayment program (Department of Health and Human Services 2018, CJ-152).

IHS Funding Rank 19th, 20th, 21st

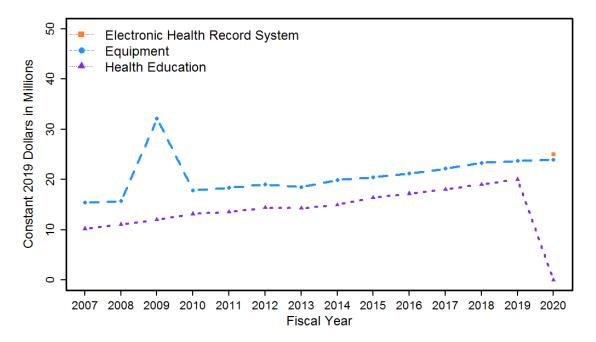


Figure 9. Indian Health Service programs arranged in decreasing order and ranked 19th-21st by mean funding level include: Electronic Health Record System (EHRS), Equipment, and Health Education (HE). For the Fiscal Year 2020, the President of the United States requested a total of \$25,000,000 for EHRS, \$23,983,000 for Equipment, and zero dollars for HE programs.

A plot of Electronic Health Record System (EHRS), Equipment, and Health Education (HE) over time is provided in Figure 9. The President requested \$25,000,000 million for FY2020 to fund the new EHRS program. If funded the EHRS would rank 19th out 24 major programs of the IHS. The purpose of the EHRS is to improve clinical and administrative capabilities for the delivery of timely and impactful healthcare. The IHS states the benefits of adopting and implementing the EHRS include: improved patient safety, improved patient outcomes, better disease management, enhanced population health, improved clinical quality measures, opioid tracking, patient data exchange, third party revenue generation, agency performance reporting, etc. (Department of Health and Human Services 2019, CJ-53). Funding for the Equipment program ranks 20th out of IHS's major programs and the requested amount of \$23,983,000 is a slight increase of \$277,000 from the previous FY. Except for 2009, funding for the Equipment program has only increased slightly since 2007. Zero dollars were requested in FY 2020 for the HE program, and this is the 2nd year the President proposed a discontinuation of the program. HE has been used to support community health, school health, worksite health promotion, and patient education. The IHS reports that the HE program is to be discontinued to provide health care services and staffing for newly constructed facilities (Department of Health and Human Services 2019, CJ-121).

IHS Funding Rank 22nd, 23rd, 24th

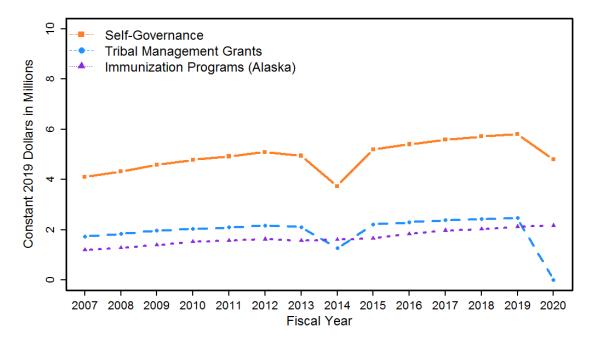


Figure 10. The least funded programs of the Indian Health Service arranged in decreasing order include: Self-Governance (SG), Tribal Management Grants (TMG), and Immunization Programs in Alaska (IPA). For the Fiscal Year 2020, the President of the United States requested a total of \$4,807,000 for SG, zero dollars for TMG, and \$2,173,000 for IPA programs.

A plot of Self-Governance (SG), Tribal Management Grants (TMG), and Immunization Programs in Alaska (IPA) over time is provided in Figure 10. The President's FY 2020 request for the SG program was \$4,807,000, which is \$999,000 less than the previous FY annualized continuing resolution. Funding for the SG program ranks 22nd out of 24 programs funded by the IHS. SG dollars are utilized by the Office of Tribal Self-Governance and support government-to-government negotiations of self-governance compacts and funding agreements. These dollars are also used for oversight by the IHS Director's Agency Lead Negotiators and for technical assistance on Tribal consultation activities, analysis of Indian Health Care Improvement Act authorities, and activities that support the IHS Director's Tribal Self-Governance Advisory Committee (Department of Health and Human Services 2018, CJ-164-165). The President requested zero dollars to fund the TMG program for both FY 2019 and 2020. The TMG was established to assist all federally recognized Indian Tribes and Tribally-sanctioned Tribal organizations to plan, prepare, or decide to assume all or part of existing Indian Health Service programs, functions, services, and activities (Department of Health and Human Services 2018, CJ-158). The IPA is the least funded program of the IHS. However, it has received somewhat steady funding over the years, and the President's request for FY 2020 was \$2,173,000. This program is used to vaccinate Alaska Natives for Hepatitis B and Haemophilus Influenzae (Department of Health and Human Services 2018, CJ-142).

Total IHS Funding Per Capita

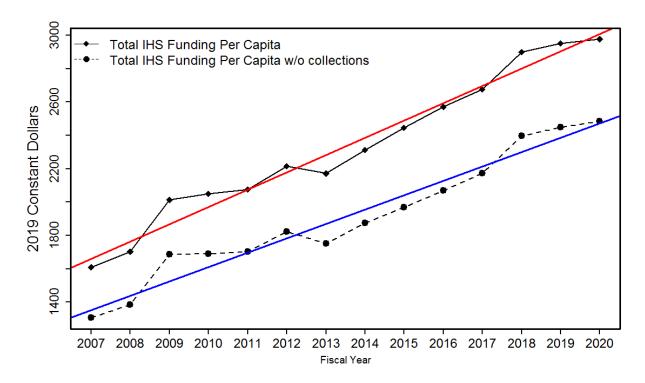


Figure 11. Total funding per capita of the Indian Health Services with and without collections. The United States spends an estimated \$2,975.60 per American Indian/Alaska Native (AI/AN) person including third party collections (e.g., Medicaid, Medicare, etc.). Not including third party collections, the U.S. spends \$2,485.39 per AI/AN person.

Using the service population estimate of AI/AN, the United States spends an estimated \$2,485.39 per AI/AN without collections. As discussed previously, collections include Medicare, Medicaid, private insurance, staff quarters, and the Department of Veterans Affairs. If collections are included the United States spends a total of \$2,975.60 per AI/AN person. Based upon linear regression, the IHS budget per AI/AN person increases by approximately \$86.61 per year not including collections and \$103.57 per year with collections. The fiscal trend in funding to the IHS to meet TTR per capita of AI/AN service member is provided in Figure 11.

Funding Trend Program Summary

Overall, total federal health care funding to meet TTR has an increasing trend which grows at an estimated rate of \$278 million per year without collections. Programs that have experienced increased funding almost every year include: Hospitals & Health Clinics, Purchased/Referred Care, Contract Support Costs, Facilities & Environmental Health Support, Alcohol & Substance Abuse, Dental Health, Mental Health, Public Health Nursing, Direct Operations, and Urban Health. Programs that have only experienced slight increases and/or exhibited flatline trends include: Special Diabetes Program for Indians, Indian Health Care Improvement Fund, Equipment, and Immunization Programs (Alaska). Federal dollars for Health Care Facilities Construction, Sanitation Facilities Construction, and Maintenance & Improvement programs can vary substantially from year to year without clear trends.

Programs with recent and substantial decreases in funding or programs in which no dollars were requested by the current President include: Community Health Representatives (CHR), Indian Health Professions (IHP), Health Education, Self-Governance, and Tribal Management Grants (TMG). The IHS states it intends to phase out the CHR program to replace the program with a new National Community Health Aide Program (CHAP) and requested funding for FY 2020 will be used to transition to this program (Department of Health and Human Services 2019, CJ-133). Little information is available as to why the IHS requested a budget decrease for the IHP, other than the requested funding enables basic program function. This is also true with the Health Education program, where zero dollars were requested (i.e., \$20 million below the FY 2019 Annualized CR). The IHS does state that the Tribes may choose to use their own resources to support similar functions of the Health Education program (Department of Health and Human Services 2019, CJ-130). The budget request that has resulted in a decrease in funding to Self-Governance and TMG can be attributed to prioritization of other direct services or staffing of newly constructed facilities (Department of Health and Human Services 2019, CJ-152 & CJ-162). Two new programs, the Nonrecurring Expenses Fund (FY 2020) and Electronic Health Record System (FY 2019), have been funded or proposed for funding. The Opioid Prevention, Treatment, and Recovery Support program proposed in FY 2019 was not funded in FY 2019, nor was it proposed for funding FY 2020.

Comparison with other Spending Priorities in the United States

To better understand how TTR spending compares with other spending priorities in the U.S., a total of five other groups were compare with federal AI/AN health care spending. The five other groups included represented prison inmate, veteran, Medicaid recipient, and active duty military service spending. Figures listed in Table 1 have not been adjusted for inflation and representative of the year and methodology identified by the source cited. At \$8,602 per inmate (United States Government Accountability Office 2017, 16), federal inmate spending ranked the highest spent per capita for health care. At \$2,485 AI/AN ranked the lowest in spending priorities among the groups compared, even when including third-party collections which are arguably not part of a TTR.

Table 1. Comparison table of U.S. spending priorities ranked in decreasing order.

Group	U.S. Government Spending Estimate/Group
	Member
Federal Bureau of Prison Inmate§	\$8,602
Veterans**	\$7,600
Medicaid Recipient ^{††}	\$5,736
State Prison inmate ^{‡‡}	\$5,720
Active duty military service§§	\$4,800
American Indians and Alaska Natives (AI/AN)	\$2,976
including collections***	
AI/AN not including collections	\$2,485

Discussion

The purpose of this research was to assess health care funding of the IHS to meet TTR and to compare health care funding levels among several U.S. spending priorities. Although all agencies of the federal government are charged with the TTR, the IHS is the primary source of providing health care services and products to AI/AN of federally recognized Indian Tribes. This type of comparison is needed to better understand how the U.S. prioritizes health care funding among AI/AN and how funding is allocated to meet the unique health care needs of AI/AN. Although it can be argued that the comparison (Table 1) between groups is not fair because appropriations are designed to address the unique needs of each group, the comparisons can be informative for AI/AN to generate questions on equality and to seek change in the AI/AN health care delivery system. Probably, the most important questions to ask include: is the funding adequate to meet the diverse needs of the AI/AN population, and are these dollars being used effectively for services and products across the Nation?

§Per capita obligations of the Bureau of Prisons reported in 2016 dollars (United States Government Accountability Office 2017, 16). Figure represents institution obligations for inmate health care, including psychological care, and inflation adjusted per capita obligations from fiscal year 2016.

^{**} The Congressional Budget Office (CBO) published presentation slides entitled "Potential Spending on Veterans' Health Care, 2018-2028" which identify veterans' health care spending per enrollee to be \$7,600 in 2017 (Congressional Budget Office 2018, 7).

^{††}The Kaiser Family Foundation (KFF) which focuses upon national health issues reports that in 2014 the United States Medicaid Spending per Enrollee (Full or Partial Benefit) is \$5,736. KFF reports that spending per enrollee includes both state and federal payments to Medicaid and the estimates represent the average level of payments across all Medicaid enrollees.

^{‡‡} The Pew Charitable Trust published Matt McKillop's article entitled "Prison Health Care Spending Varies Dramatically by State" which examined how health care was funded and delivered in state-run prisons. Although there is high variation by state, McKillop reports that in FY 2015, "the typical state department of corrections spent \$5,720 per inmate to provide health care services, including medical, dental, mental health, and substance use treatment" (McKillop 2017).

^{§§} The "CBO estimates that the average cost to DoD [Department of Defense] of providing health care to a Prime enrollee for which the data were available was about \$4,800 (in 2014 dollars)" (Congressional Buget Office 2014, 8-9).

^{***} Collections are made from Medicaid, Medicare, private insurance, quarters, and Veterans Affairs reimbursements. Although collections represent a significant and growing portion of the IHS budget authority, it is arguable whether collections should be included as Treaty and Trust responsibility spending because these funding sources are available to the general public, if qualified.

The IHS itself completed a report entitled Trends in Indian Health 2014 which provides AI/AN population statistics and health disparities of AI/AN compared to other racial groups of the United States. Although five years old, this report identified 11 causes of death of AI/AN to be considerably higher than those for the U.S. all races population (U.S. Department of Health and Human Services 2014, 5). The 11 causes of death and comparison with the death rates of the U.S. all races population are as follows: alcohol related (520% greater), Tuberculosis (450% greater), chronic liver disease and cirrhosis (368% greater), motor vehicle crashes (207% greater), diabetes mellitus (177% greater), unintentional injuries (141% greater), poisoning (118% greater), homicide (86% greater), suicide (60% greater), pneumonia and influenza (37% greater), and firearm injury (16% greater). The leading causes of AI/AN deaths or all ages were diseases of the heart, malignant neoplasms, unintentional injuries, diabetes mellitus, chronic liver disease and cirrhosis (U.S. Department of Health and Human Services 2014, 57).

The disparity of causes of death among AI/AN when compared to the U.S. all races population raises questions about the adequacy of existing funding levels. As health care disparity continues to occur among AI/AN population, the existing method of calculating the level of health care need is at least neglectful or possibly an example of institutional racism. Currently, the IHS has a Level of Need Funded (LNF) Calculation to assess resources needed and resources available. The LNF calculation begins by identifying an IHS user population, which is defined as a "count of AI/AN individuals with at least one encounter in the IHS/Tribal health care system during a 3 year period" (Indian Health Service 2018). Thus, the entire AI/AN population of 2.4 million is not considered, nor are multiple visits by a single individual. This alone misleadingly inflates how much is actually allocated per person. This method of determining the size of the user population stresses the importance of AI/AN to utilize the IHS within a 3-year period to simply get counted. Although there are many reasons why AI/AN do not utilize IHS services regularly, one possible explanation is that AI/AN are simply not happy with services provided there and wait until a serious health care need arises. To better understand AI/AN patient experiences the IHS has implemented a patient experience of care survey at a mere four facilities in 2017 (Indian Health Service 2017). At the moment of finalizing this article, the results of the study were not available.

There are also other issues associated with the LNF calculation. For example, the LNF calculation is based upon resources needed to assure "Federal Employee Health Plans (FEHP)-like services." In other words, the LNF calculation has determined that health care needs of an individual AI/AN, at best, should be the same of those provided to a federal employee with Blue Cross Blue Shield. The question here is, are "FEHP-like services" adequate to meet the needs of AI/AN? What do these FEHP-like services provide and are they applied equally across Indian country? Yet, another issue with the LNF calculation is that it considers alternative resources available "Out-of-system", such as Medicare, Medicaid, Veterans Health Administration, Private Insurance at 25%. In other words, the LNF calculation assumes 25% of alternative resources are available to all AI/AN, regardless of which State the AI/AN lives within. Apparently, the IHS has formed an IHS-Tribal Workgroup to review the LNF formula and provide recommendations for updating the LNF formula.

However, it is questionable how effective the IHS-Tribal Workgroup is considering funding appropriations to the Self-Governance program ranks 22nd out of 24 IHS programs with a declining budget trend. Government-to-government consultation is important towards ensuring tribal needs and input are incorporated in the decision-making process. Consultation with Indian nations by the Executive branch the U.S. government is required under Presidential Executive Order 13175 which states that,

Indian nations and tribes ceded lands, water, and mineral rights in exchange for peace, security, health care, and education. The Federal Government did not always live up to its end of the bargain. That was wrong, and I have worked hard to change that by recognizing the importance of tribal sovereignty and government-to-government relations.

Executive Order 13175 goes on to establish policy that encourages Indian tribes to develop their own policies, and that each agency shall have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal impacts. At the very least, AI/AN should try and develop their own level of need formulas and seek additional funding to ensure a more meaningful consultation process required under Executive Order 13175. AI/AN policy makers should also consider conducting research within their own communities to understand health care concerns of the tribal citizens and why they use or do not use IHS services.

The second question posed above, asked if these dollars are being used effectively for services and products for the entire population? Considering the mission and vision of the IHS, it can be argued that AI/AN health disparities can be indicative of an ineffective health care system. In other words, if funding is adequate you would theoretically not see such large margins of health disparities among AI/AN when compared to the U.S. all race population. Therefore, it is possible that not only is funding inadequate, but the existing funding is not being used in the most effective manner. For example, increases in funding to Purchased Referred Care and a lack of substantial investment in preventive health care, construction, and equipment indicates the IHS supports a market that sells health care services and products rather than preventing people from getting sick or building much needed hospitals, health clinics, and wellness centers equipped with the latest technology.

Additional work and research are necessary to identify how TTR funding is linked to social determinates of health and how TTR funding trends contribute to what are known as "wicked problems" that exist in many AI/AN communities. In other words, high death rates and other health care disparities can also be related to funding trends of the Department of Interior's Indian Affairs and other socioeconomic factors. For example, the high death rates observed within the AI/AN population can just as easily be linked to poverty, poor living conditions, oppression, discrimination, lack of education, etc. In other words, increasing funding to address health care disparities may only be part of the solution for improving health and wellbeing among AI/AN communities.

Conclusion

As health care needs among AI/AN population is complex and varied, this study should only be used to see broad funding level trends at the National scale. Ultimately it is up to the reader to determine how total and program level funding, and funding trends impact themselves and local communities. At the very least, Tribal nations should question the LNF methodology and make every effort to improve equality, representation, and democracy when IHS fiscal budgets are developed. They should also question why funding levels are mostly discretionary and why funding levels are relatively low despite the high need among AI/AN communities. As IHS is allocated funding by program, it makes some sense that AI/AN work cooperatively to leverage dollars to specific programs rather than single Tribes or Nations seeking special interests. Tribal governments and organizations also share some of the responsibility in providing adequate health care and services to their respective Tribal nations. Therefore, tribal citizens also need to hold their own Tribal governments/policy makers accountable as well, as it can also be argued that the

existing approaches by tribal governments/policy makers to provide the necessary funding for health care services and products is ineffective.

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