

The Burden of Diabetes among American Indians and Alaska Native Medicare Enrollees

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A number of studies have documented the substantial burden of diabetes among American Indian and Alaska Native (AIAN) peoples.¹⁻⁸ AIANs have the highest prevalence of diabetes among U.S. racial and ethnic groups. The diabetes prevalence among AIAN adults who obtained services through the Indian Health Service (IHS) was found to be 18% in fiscal year (FY) 2010,^a double the U.S. rate of 9%.^{1,9} Among AIANs, diabetes is characterized by early age of onset and high rates of complications, factors which substantially increase related mortality and treatment costs.^{1,3-8} For example, nearly one-third of AIAN adults with diabetes were found to have cardiovascular disease (CVD) in FY2010,¹ and the AIAN prevalence of diabetes-related renal failure and amputations far exceeds those for other populations.⁵⁻⁸

Mortality associated with diabetes and CVD is one of many reasons fewer AIANs survive into their seventies.¹⁰⁻¹⁴ Recent studies documented 46% higher mortality among AIANs registered to use IHS services than non-Hispanic whites (hereafter referred to as Whites) living in the same areas.¹⁰ Furthermore, the decrease in mortality observed among Whites between 1990 and 2009 was not shared by AIANs.¹⁰ Heart disease and diabetes were among the four leading causes of AIAN mortality.¹⁰ AIANs diabetes-related mortality was 2.5 to 3.5 times higher than that for Whites, and approximately 40% of the AIANs died before age 65 years due to diabetes-related issues.¹¹ AIANs mortality due to heart disease was 1.2 to 1.3 times higher than that of Whites.¹² Higher rates of mortality due to stroke and kidney disease were also found among AIAN.^{10,13}

This policy brief provides information on diabetes among AIANs with Medicare coverage who were registered to use IHS services. Medicare is a federal program for health care coverage for people aged 65 years and older (Aged), people under 65 years old with certain disabilities (Disabled), and people of any age with end stage renal disease (ESRD). Medicare plays an important role in providing access to and payment for services for AIAN Medicare enrollees. Medicare data are used to describe the prevalence of diabetes and related chronic conditions among the AIAN enrollees, their health service utilization, and Medicare payments for those services. To provide context, similar information on non-Hispanic White enrollees living in the same areas is also provided.

Nearly 95% of AIANs aged 65 years and older who use IHS services were enrolled in Medicare in fiscal year 2010.¹

The prevalence of diabetes was 39% among AIAN Medicare enrollees registered to use IHS services. Medicare payments for their services accounted for 59% of Medicare payments for all IHS AIAN.

The findings can inform ongoing efforts to strengthen existing programs and policies, and identify additional opportunities, to improve health outcomes for AIAN Medicare enrollees with diabetes. IHS and Tribes provide services to prevent the onset of diabetes, and to prevent and treat complications among those with diabetes. The Special Diabetes Program for Indians (SDPI) and Medicare and Medicaid programs

and policies influence the types and availability of these services. Information in this report may be used to assess options for increasing access to evidence-based services supported by SDPI, Medicare, and Medicaid and using these resources effectively.

^a The prevalence of diabetes among AIAN (15%) was adjusted to the age distribution of the U.S. population in 2010. The age-adjusted IHS AIAN prevalence was 18%.

Programs and Policies that Influence the Availability of Health Services for AIANs with Diabetes

Since IHS implemented SDPI, access to education and case management services by AIANs with diabetes has increased dramatically.⁴ IHS funds health services for approximately two million AIANs and has implemented a number of programs to prevent and treat diabetes. SDPI provides grants to over 400 IHS, Tribal, and Urban Indian (I/T/U) health programs.⁴ Using current scientific research and evidence-based best practices, SDPI grant programs have made tremendous improvements in diabetes treatment and prevention in both clinical settings and community-based programs. Since SDPI began in 1998, there have been documented improvements in control of blood sugar and cholesterol among AIANs with diabetes, as well as decreases in the incidence of ESRD.⁴ The program requires reauthorization by Congress. Since 2004, annual SDPI funding has remained at \$150 million and Congress has renewed funding for limited time periods such as one and two years. Funding uncertainty negatively influences service delivery. Permanent SDPI reauthorization would address issues related to funding uncertainty such as staff retention.

Medicare and Medicaid programs and policies influence AIAN enrollment in these programs and IHS reimbursement for providing services to those enrolled. Nearly 95% of AIANs who used IHS services and were aged 65 years and older were enrolled in Medicare in FY2010; the percent enrolled across all ages was 10%.¹ Medicaid is a joint federal and state program to provide health coverage for adults and children living in low-income households. In FY2010, approximately 30% of AIAN who used IHS services had Medicaid coverage.¹ Consequently, it is important to consider how Centers for Medicare and Medicaid Services (CMS) programs and policies promote the provision and use of effective strategies to reduce the onset of diabetes and diabetes-related complications among those with diabetes. Furthermore, it is important to assess their effectiveness in promoting use outpatient services to prevent the need for costly hospital emergency and inpatient utilization to treat acute and chronic complications of diabetes.

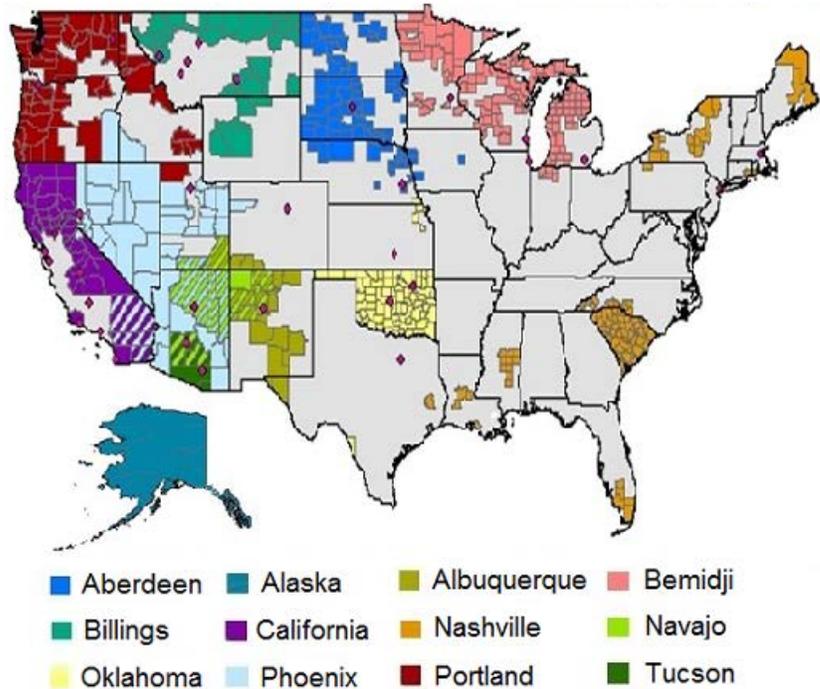
AIAN Medicare Enrollees Registered to use IHS Services (IHS AIAN)

This policy brief includes information about AIAN Medicare enrollees registered to use IHS services who met other criteria concerning geographic location and health coverage (hereafter referred to as IHS AIAN). The information was obtained from the CMS Chronic Condition Warehouse. The IHS service system includes IHS providers, Tribal health programs funded through contracts and compacts with IHS, and urban Indian health centers. Together they are known as I/T/U providers; the majority of I/T providers are located on or near tribal lands. The service delivery areas for I/T providers are organized into 12 geographic areas. The 12 areas are represented in Figure 1 using IHS Contract Health Service Delivery Areas (CHSDAs). The CHSDAs were used to identify AIAN who may have used I/T services based on their geographic proximity to those services.

Medicare provides reimbursement for services through four types of coverage. Part A primarily provides coverage for inpatient services; Part B for outpatient services and durable medical equipment; Part C for managed care plans; and Part D for outpatient prescription drugs. this policy brief includes information for AIANs who were 1) registered to use IHS services, 2) lived in one of the 12 areas in Figure 1, 3) had 12 months of Part A and Part B coverage, or continuous coverage while they were alive, and 4) were not enrolled in a Medicare managed care program; they are referred to as IHS AIAN enrollees. Of the 219,888 Medicare enrollees identified as AIAN in 2010, 121,323 were IHS AIAN enrollees.

Figure 1. IHS Areas represented by Contract Health Service Delivery Areas (CHSDAs)

This brief includes 2010 data on IHS AIAN enrollees health status, service utilization, and Medicare payments for services. To provide context for IHS AIAN findings, similar information on non-Hispanic White enrollees (hereafter referred to as White enrollees) who lived in the same areas, is also provided. Additional information on the methods used to analyze these data may be found in *Medicare Enrollment, Health Status, Service Use and Payment Data for American Indians and Alaska Natives*.¹⁵



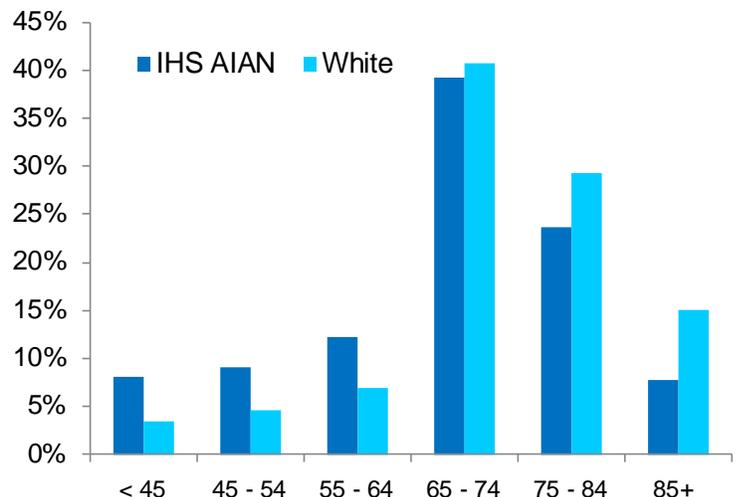
IHS AIAN Medicare Enrollee Characteristics that Influence Health & Health Service Use

Nearly twice as many IHS AIAN enrollees as White enrollees were eligible for Medicare because of a disability.^b The percentage enrolled due to disability was 27% among IHS AIAN enrollees and 14% among White enrollees.

IHS AIAN enrollees were younger than White enrollees. See Figure 2. A lower percentage of IHS AIAN enrollees were aged 75-84 years and 85 years and older. Among the Aged IHS AIAN enrollees, 44% were aged 75 years and older. Among Aged White enrollees, the percentage was 53%.

Figure 2. Age distribution of IHS AIAN and White Medicare enrollees. 2010.

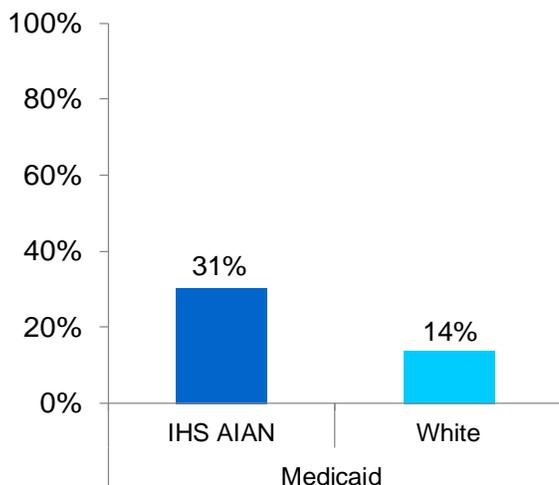
IHS AIAN Medicare enrollees were younger than White enrollees. This was attributed in part to a higher percentage of IHS AIAN enrollment due to disability and ESRD, and higher mortality at younger ages.



^b Disabled enrollees include enrollees with ESRD younger than 65 years of age; Aged enrollees include enrollees with ESRD older than 65 years of age.

IHS AIAN enrollees were more likely to have lived in a rural area than White enrollees. This brief includes data for IHS AIAN and White enrollees who lived in the CHSDAs described in Figure 1. Among these enrollees, 57% of IHS AIANS lived in rural areas.^c This is more than twice the percentage of White enrollees who lived in rural areas (that is 24%).

Figure 3. Medicaid coverage among IHS AIAN and White Medicare enrollees. 2010.

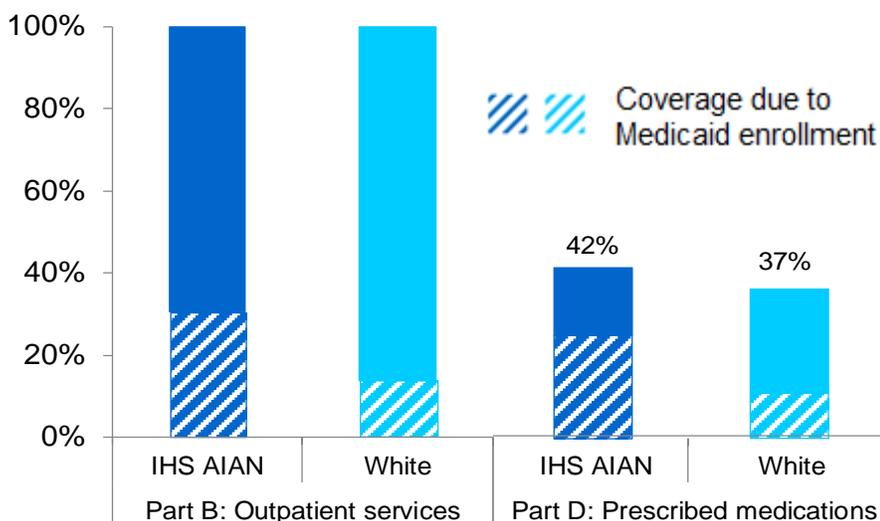


Twice as many IHS AIAN Medicare enrollees as White enrollees were also enrolled in Medicaid. Among IHS AIAN, 31% were enrolled in both Medicaid and Medicare. The percentage among White enrollees was 14%. See Figure 3. Since Medicaid eligibility is determined by household income, higher IHS AIAN Medicaid enrollment indicates that more AIAN Medicare enrollees lived in poverty than White enrollees.

For those enrolled in both Medicare and Medicaid, Medicaid may provide payment for Medicare Part B (primarily outpatient services) and Part D (prescription medications) coverage, Medicare copayments and deductibles, and services covered by Medicaid but not Medicare.

More IHS AIAN enrollees had Medicare Part B and Part D coverage due to dual enrollment in Medicaid than White enrollees.^d

Figure 4. Medicare Part B and Part D coverage among IHS AIAN and White Medicare enrollees. 2010.



This brief includes data for enrollees with continuous Part A and Part B coverage during 2010. Approximately 30% of IHS AIAN enrollees with continuous Part B coverage had such coverage due to Medicaid. See Figure 4. Just over 40% of IHS AIAN enrollees had Part D coverage; the majority had such coverage due to Medicaid.

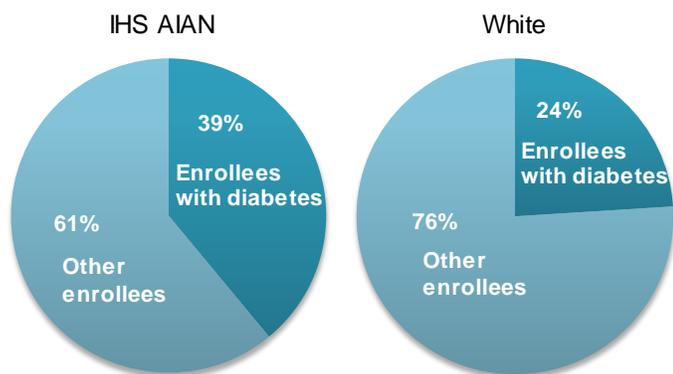
^c A rural area was defined using the U.S. Office of Management and Budget categories for metropolitan and non-metropolitan areas.

^d Among those with at least 1 month of Part A coverage, 91% of IHS AIANS and 95% of white enrollees had at least 1 month of Part B coverage. Similar to those with continuous Part A and Part B coverage, a large percentage of IHS AIANS had Part B coverage for 1 month or more due to Medicaid payment for the coverage.

Influence of Diabetes on IHS AIAN Morbidity

The prevalence of diabetes among IHS AIAN enrollees was 1.6 times that for White enrollees.^e The prevalence of diabetes among IHS AIAN enrollees was 39%, as compared to 24% among White enrollees. See Figure 5. Not only was the prevalence of diabetes high among IHS AIAN enrollees, the prevalence of two diabetes related chronic conditions, cardiovascular disease (CVD) and ESRD, was also high. See Table 1.

Figure 5. Diabetes status of Medicare enrollees. 2010.



There are notable differences in the prevalence of diabetes by age. The higher prevalence rates for IHS AIAN enrollees were found among those aged 55 to 64 years old (46%) and those 65 to 74 years old (42%). Of all IHS AIAN enrollees with diabetes, less than one-third (31%) were 75 years and older. Among White enrollees with diabetes, nearly half (47%) were 75 years and older.

Approximately half of IHS AIANs with diabetes had CVD.

The prevalence of CVD among IHS AIAN enrollees was 47%. When the prevalence was adjusted for age and gender differences between IHS AIAN and White enrollees, the IHS AIAN adjusted prevalence rate was 51%. In other words, if IHS AIANs with diabetes had the same age and gender distribution as Whites, 51% of those with diabetes would have CVD. The prevalence of CVD among White enrollees with diabetes was 54%. Another way to assess the burden of diabetes and CVD is to examine the prevalence of both conditions among **all** enrollees. Twenty percent of all IHS AIAN enrollees had both diabetes and CVD; among all White enrollees only 13% had both conditions.^e

Table 1. The prevalence of diabetes and related chronic conditions among IHS AIAN and White enrollees. 2010.

Age group	IHS AIAN			White		
	All enrollees	Enrollees with diabetes		All enrollees	Enrollees with diabetes	
	Diabetes	CVD	ESRD	Diabetes	CVD	ESRD
Disabled						
< 45	20%	23%	19%	12%	22%	7%
45 - 54	35%	35%	18%	21%	36%	5%
55 - 64	46%	48%	17%	29%	49%	6%
Aged						
65 - 74	42%	44%	6%	23%	48%	2%
75 - 84	41%	55%	4%	26%	61%	1%
85 +	32%	64%	2%	22%	70%	1%
All persons	39%	47%	8%	24%	54%	2%
All persons adjusted ^a	39%	51%	6%			

^a Adjusted to the age and gender distribution of the White enrollees.

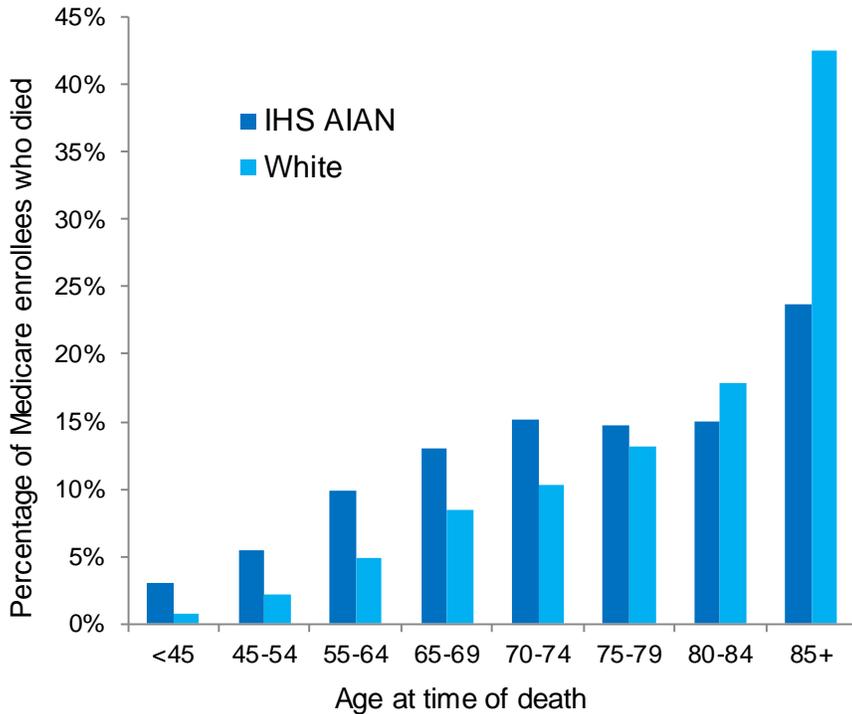
The prevalence of ESRD among those with diabetes was three times higher among IHS AIAN enrollees than White enrollees.^e Approximately 4% of all IHS AIAN enrollees had ESRD. However, among IHS AIANs with diabetes the prevalence of ESRD was 8%. The prevalence of ESRD among White enrollees with diabetes was much lower (2%). When the IHS AIAN ESRD prevalence was adjusted for age and gender, the adjusted IHS AIAN prevalence rate was actually lower (that is 6%). This is due in part to early mortality among those with ESRD. Among IHS AIAN enrollees, 90% of those with ESRD had diabetes.

^e The IHS AIAN prevalence rate was adjusted to the age and gender distribution of the white enrollees.

Influence of Diabetes and Related Chronic Conditions on IHS AIAN Mortality

Mortality among IHS AIAN enrollees was higher than mortality among White enrollees. During 2010, the annual mortality rate among IHS AIAN enrollees was 20% higher than mortality among White enrollees, controlling for age and gender differences between the two populations.

Figure 6. Age distribution of Medicare enrollees who died in 2010.

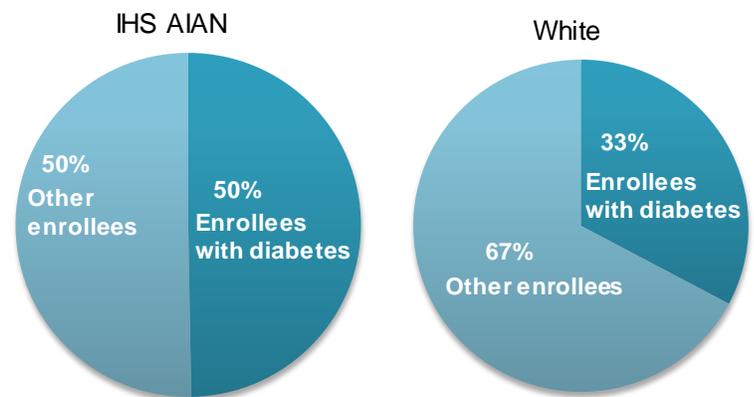


The IHS AIAN enrollees died at much younger ages than White enrollees. Many died before 70 years of age. See Figure 6. In contrast, 42% of White enrollees died at age 85 years or older.

At first glance, the percentage of IHS AIAN and White enrollees who died during the year appears similar (that is 4.5% of IHS AIAN and 5.0% of White enrollees). However, in order to compare the mortality rates, it was important to control for age and gender differences between the populations. The IHS AIAN enrollees age and gender adjusted annual mortality rate was 6.0%, which is 20% higher than that for White enrollees.

Higher mortality among IHS AIAN enrollees was explained in part by the higher prevalence of diabetes and related chronic conditions among IHS AIANS. Among Medicare enrollees, half of all IHS AIANS who died in 2010 had diabetes. Only 33% of White enrollees who died had diabetes. See Figure 7. Recent studies have documented that mortality associated with diabetes, heart disease, stroke, and kidney disease was higher among AIANS registered to use IHS services than Whites and that the AIANS were more likely to die at younger ages due to diabetes-related conditions.¹⁰⁻¹⁴

Figure 7. Diabetes status of Medicare enrollees who died in 2010.



Influence of Diabetes on IHS AIAN Emergency Department and Inpatient Utilization

Figure 8. Average annual number of emergency department visits per person among IHS AIAN and White Medicare enrollees. 2010.

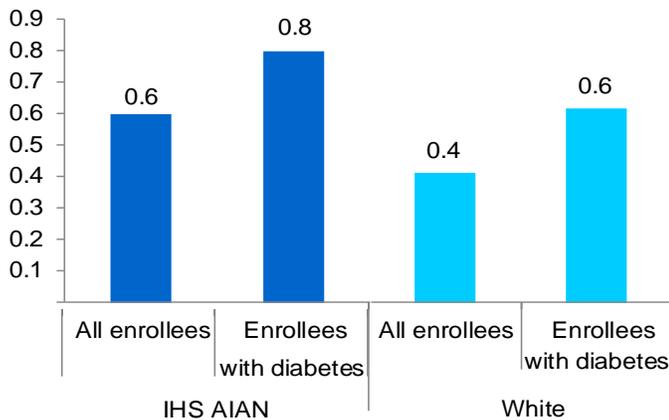
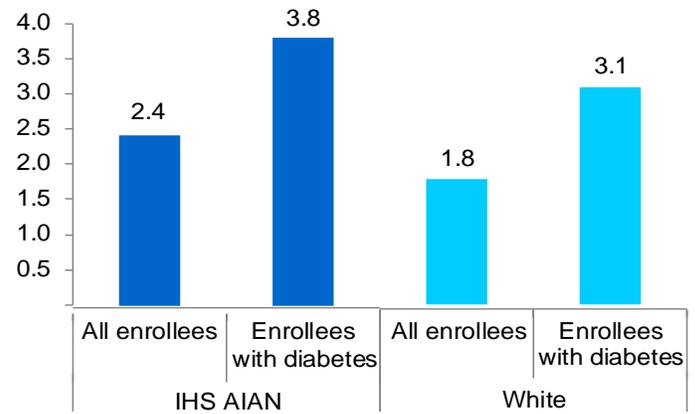


Figure 9. Average annual number of hospital inpatient days per person among IHS AIAN and White Medicare enrollees. 2010.



Diabetes is associated with higher use of hospital emergency department (ED) and inpatient services. See Figures 8 and 9. In 2010, IHS AIAN enrollees with diabetes averaged 0.8 ED visits (that is an average of nearly 1 ED visit per person) and 3.8 hospital days in the hospital.

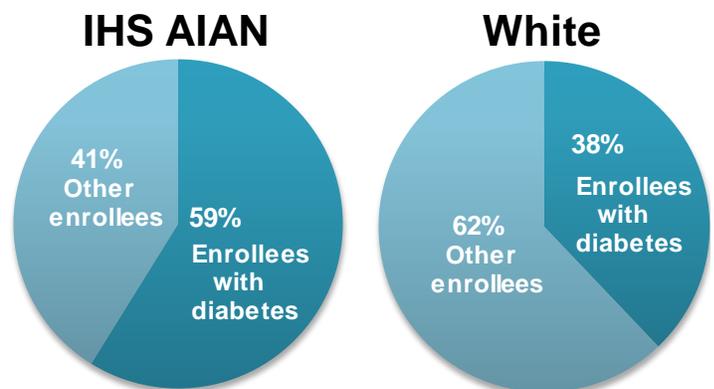
Since IHS AIAN enrollees had a higher prevalence of diabetes, this higher utilization contributed to higher overall utilization of ED and inpatient services among IHS AIANs. During 2010, IHS AIAN enrollees with diabetes accounted for half (49%) of all IHS AIAN enrollees ED visits; among White enrollees those with diabetes accounted for only 32% of all white ED visits. Similarly, IHS AIAN enrollees with diabetes accounted for 61% of all hospital inpatient days, White enrollees with diabetes accounted for 42% of inpatient days.

Influence of Diabetes on IHS AIAN Medicare Payments

Medicare payments^f for IHS AIAN enrollees with diabetes accounted for nearly 60% of all Medicare payments for IHS AIANs.

Medicare payments for the 39% of IHS AIAN enrollees with diabetes accounted for 59% of all Medicare payments for IHS AIANs. Medicare payments for White enrollees with diabetes accounted for 38% of all payments for White enrollees. See Figure 10.

Figure 10. Percent of total Medicare payments attributed to enrollees with diabetes.



^f Medicare payments include payments by Medicare and copayments and deductibles paid by Medicaid, IHS, provide coverage, and other sources.

How Diabetes and Related Chronic Conditions Influenced IHS AIAN enrollees Medicare payments

The average annual Medicare payment for IHS AIAN enrollees was higher than that for White enrollees. During 2010, the average annual Medicare payment for IHS AIAN enrollees was \$15,021, 20% higher than the average for White enrollees (\$12,261). See Table 2. However, it is not possible to compare these two amounts without considering a number of factors that influenced Medicare payments.

Table 2. Average Medicare payment for IHS AIAN and White Medicare enrollees by health status. 2010.

	IHS AIAN		White	
	Percent of enrollees	Average payment	Percent of enrollees	Average payment
All enrollees	100%	\$15,021	100%	\$12,261
Any enrollee with diabetes	39%	\$22,751	24%	\$19,502
Group 1: Diabetes alone	20%	\$10,658	11%	\$10,141
Group 2: Diabetes and CVD (but not ESRD) ¹	16%	\$26,539	13%	\$25,081
Group 3: Diabetes and ESRD (regardless of CVD status) ²	3.2%	\$78,559	0.5%	\$85,282

The IHS AIAN percents were not adjusted for the age and gender of White enrollees.¹ Among IHS AIAN with diabetes and CVD, 12% also had ESRD and were assigned to Group 3. 2 Among IHS AIAN with diabetes and ESRD, 70% had CVD.

Diabetes influenced higher 2010 Medicare payments for IHS AIAN enrollees in 5 important ways:

- 1. More IHS AIAN enrollees had diabetes.** Among IHS AIAN enrollees the prevalence of diabetes was 39%; the rate among White enrollees was 24%.
- 2. More IHS AIAN enrollees had diabetes with complications.** To better understand the influence of health status on Medicare payment, IHS AIAN and White enrollees with diabetes were assigned to one of three condition groups: Group 1 - Diabetes alone, Group 2 - Diabetes and CVD (but not ESRD), and Group 3 - Diabetes and ESRD (regardless of CVD status). See Table 2. IHS AIAN enrollees were more likely than White enrollees to have both diabetes and CVD and both diabetes and ESRD. Among IHS AIAN enrollees, 16% had Diabetes and CVD (Group 2) compared to 13% of Whites enrollees. Three percent of the IHS AIAN enrollees had Diabetes and ESRD (Group 3) compared to 0.5% of White enrollees.
- 3. Diabetes is expensive to treat.** Among both IHS AIAN and White enrollees, average Medicare payments for those with diabetes were substantially higher than average payments for all enrollees. The average Medicare payment IHS AIAN enrollees with diabetes was \$22,751 – more than \$7,000 greater than the average payment for all IHS AIAN enrollees (\$15,021). Similarly, the payment for White enrollees with diabetes was more than \$7,000 greater than the average payment for all White enrollees (\$19,502 compared to \$12,261).
- 4. The costs of treating diabetes with complications (such as CVD and ESRD) is especially expensive for both IHS AIAN and White enrollees.** Average Medicare payments for IHS AIAN and White enrollees with diabetes and CVD but not ESRD ranged from \$25,000-\$27,000 annually. The average payment for enrollees with diabetes and ESRD was closer to \$80,000.
- 5. IHS AIAN enrollees with diabetes were more likely to be dually enrolled in Medicare and Medicaid, and dual enrollment was associated with high Medicare payments.** Among IHS AIAN enrollees with diabetes, 33% were dually enrolled in Medicaid; the percentage among White enrollees with diabetes was 18%. The average payment for IHS AIAN dual eligibles with diabetes was \$30,328. The average for Whites was \$32,328. Medicare payments for enrollees who are dually enrolled in Medicaid may be higher than payments for those who are not due to specific needs of those with lower incomes, higher morbidity, and Medicaid payment for Medicare Part D coverage.

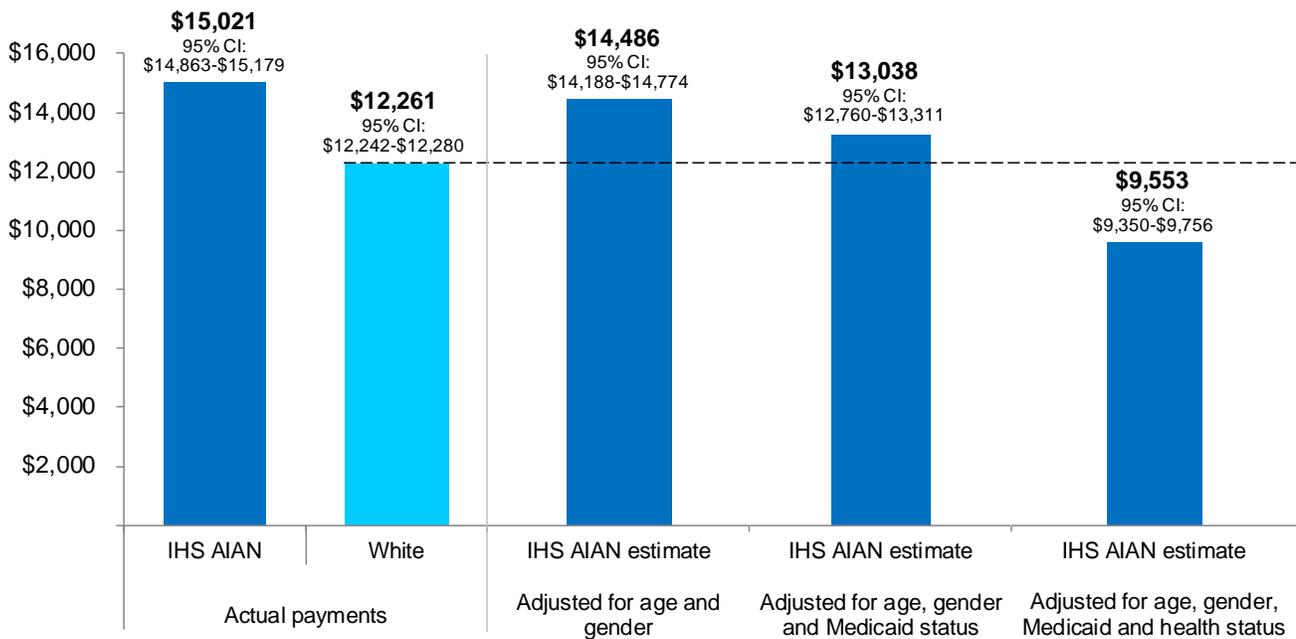
Medicare payments for IHS AIAN enrollees were estimated to be lower than payments for White enrollees when differences in age, gender, Medicaid enrollment, and health status were controlled for.

The first two bars in Figure 11 show actual average Medicare payments for IHS AIAN and White enrollees. As noted above, the IHS AIAN average payment was \$15,021 in 2010, while the White average payment was \$12,261. These are *unadjusted* payments. To understand the influence of age, gender, health status, and Medicaid dual enrollment on IHS AIAN Medicare payments a multivariate regression analysis was conducted. The regression findings were used to estimate IHS AIAN enrollee payments, controlling for differences between IHS AIAN and White enrollees.

First, when age and gender differences between IHS AIAN and White enrollees were controlled for (that is IHS AIAN enrollees were assumed to have the same age and gender as White enrollees), the IHS AIAN average payment was estimated to be \$14,486. When dual enrollment in Medicaid was also controlled for (that is IHS AIAN enrollees were also assumed to have the same Medicaid enrollment as White enrollees), the IHS AIAN average payment was estimated to be even lower, \$13,038.

Finally, when differences in the prevalence of diabetes and related comorbidities like CVD and ESRD were also controlled for, the IHS AIAN average payment was estimated to be \$9,553, significantly lower than the average payment for White enrollees, \$12,261. In other words, when IHS AIAN enrollees were assumed to have the same age, gender, Medicaid enrollment and health status as White enrollees, the estimated IHS AIAN average payment was approximately \$2,700 lower than that for White enrollees (\$9,553 - \$12,261 = -\$2,708). This result suggests that payments for IHS AIAN enrollees were lower than payments for White enrollees after accounting for these factors.

Figure 11. Actual and estimated average Medicare payments for IHS AIAN and White enrollees in 2010.



The IHS AIAN payment estimates were derived from a two-stage regression model. In the first stage, a logistic regression was estimated to describe the relationship between enrollee characteristics and having any Medicare payment. In the second stage, a generalized linear regression was estimated, using a gamma distribution and a log-link function, to describe the relationship between enrollee characteristics and the level of payment. All estimates were adjusted for location (i.e., 12 areas represented by CHSDAs).

Key Findings concerning Diabetes among IHS AIAN Medicare Enrollees

Although other studies have documented the burden of diabetes among AIANs, this report provides detailed information on diabetes among AIAN with Medicare coverage who were registered to use IHS services using data for 2010.

- **IHS AIAN enrollees had a higher prevalence of diabetes than White enrollees.** Nearly 40% of IHS AIANs had diabetes, a rate that was 1.6 times that of Whites.
- **IHS AIAN enrollees were more likely to have diabetes in combination with CVD and ESRD.** Among IHS AIAN enrollees, 20% had diabetes and CVD and 3% had both diabetes and ESRD. The prevalence rates among White enrollees were 13% and 0.5%, respectively.
- **Diabetes was associated with higher IHS AIAN mortality.** Among Medicare enrollees, the annual mortality rate was 20% higher among IHS AIAN than White enrollees, and AIANs were more likely to die at younger ages. Among Medicare enrollees who died, IHS AIANs were more likely to have diabetes. These findings support recent studies that documented diabetes, heart disease, stroke, and kidney disease contributed to the mortality rate among AIANs who were registered to use IHS services being 46% higher than that for Whites.¹⁰
- **Diabetes was associated with higher use of emergency department and hospital inpatient services among IHS AIAN and White enrollees.** The higher prevalence of diabetes among IHS AIAN enrollees, contributed to a greater proportion of emergency department visits and hospital days among IHS AIAN enrollees than White enrollees.
- **The higher prevalence of diabetes and related complications among IHS AIAN enrollees was associated with higher IHS AIAN Medicare payment.** This is due in part to the high costs of treating those with diabetes.

Notes on Analysis

In this report, the health status and other key findings were documented for IHS AIANs who were enrolled in Medicare due to disability or ESRD, or who lived to be age 65 and were enrolled in Medicare due to age. Mortality associated with diabetes and CVD is one of several reasons fewer AIANs live to be 65 years old.¹⁰⁻¹⁴ Recent studies documented substantially higher mortality among IHS AIANs than Whites, the greatest disparities were observed among AIANs less than 65 years of age who experienced mortality rates that were 1.8 to 2.7 times that of Whites.¹⁰

Nearly 95% of IHS AIANs age 65 years and older were found to be enrolled in Medicare in another study;¹ this report does not include data for elders without Medicare coverage. Nor does it include information on services provided by IHS and Tribal providers that were not reimbursed by Medicare. A lower percentage of IHS AIANs than Whites with at least one month of Medicare Part A, had Medicare Part B coverage for outpatient services. Examples of services not covered by Medicare may include specific types of outpatient and home-based services, and prescribed medications for those without Part D coverage. The overwhelming majority of these services were financed by IHS and Tribes.

Policy Implications

The findings presented in this report for IHS AIAN Medicare enrollees document the value of preventing the onset of diabetes and diabetes-related complications among AIAN of all ages. Prevention is the key to limiting AIAN diabetes-related morbidity and mortality, and reducing the costs of treating diabetes regardless of age and insurance coverage. Many IHS AIANs already had diabetes upon enrollment in Medicare.

IHS and Tribes have implemented a number of programs to prevent and treat diabetes. For example, IHS is incorporating patient-centered, medical home concepts throughout its system to improve the quality of, access to, and coordination of services. Given the unique characteristics of IHS AIANs - such as living in rural areas, having lower household incomes, experiencing the onset of diabetes at younger ages, and having high rates of diabetes-related complications, it is important to implement programs that have the ability to meet these specific needs. These results can inform efforts to improve IHS AIAN health outcomes, and can guide the allocation of federal, state, and Tribal resources. For example, they may be used to assess policy initiatives related to diabetes and access to preventive and primary care services.

The Special Diabetes Program for Indians (SDPI) is needed to prevent the onset of diabetes, and to prevent and treat complications among those with diabetes. SDPI provides grants to IHS and Tribal organizations and it is important that these organizations have resources to expand prevention programs with documented success to the populations they serve.

- SDPI increases access to effective prevention services for AIANs of all ages. For example, the SDPI Diabetes Prevention program helped reduce risk factors for diabetes among AIAN participants who lived in 36 diverse clinical and community-based settings – including those located in rural areas.⁴
- SDPI resources are allocated to the treatment of those with diabetes to prevent the onset of complications. SDPI programs have contributed to the 43% reduction in ESRD incidence among AIANs with diabetes between 2000 and 2011.⁷
- SDPI funding has remained at \$150 million since 2004. Adjusting for inflation, this amount is approximately 20% less in 2014 dollars.¹⁶ In the past, Congress has reauthorized the program and appropriated renewed program funding for limited time periods. Permanent SDPI reauthorization and increases based on inflation would create financial stability for IHS and Tribal organizations dependent upon these resources.

Medicare and Medicaid reimbursement policies and programs need to support increased access by IHS AIANs to evidence-based practices, particularly those that effectively prevent diabetes and diabetes-related complications and efficiently use resources. Evidence-based practices exist to reduce the risk of CVD and ESRD among those with diabetes. Policies and programs that support the increased provision of such services by IHS and Tribal health programs may not only reduce the diabetes-related health burden among IHS AIANs but may also reduce unnecessary use of expensive hospital emergency department and inpatient services, and Medicare payments for the provision of those services.

Strategies to increase access to such services could include expanding and enhancing Medicaid and Medicare reimbursement for IHS and Tribal providers for:

- Diabetes Self Management Education, Medical Nutrition Therapy, and case management services;
- Clinical pharmacy services; and
- Services that facilitate transition of patients from hospital and specialty services to their primary care setting and home.

The Centers for Medicare and Medicaid Services Tribal Technical Advisory Group

The Centers for Medicare and Medicaid Services (CMS) established the Tribal Technical Advisory Group (TTAG) in 2004 so that Tribes could provide input and advice on CMS programs and policies that influence American Indian and Alaska Native (AIAN) peoples. TTAG serves as a CMS advisory committee on important health care matters associated with the Medicare, Medicaid, and State Children Health Insurance Programs, and implementation of the Affordable Care Act for AIANs. TTAG includes representation from Tribal leaders from each of the 12 areas of the Indian Health Service delivery system and from a number of AIAN organizations (that is Tribal Self Governance Advisory Committee, National Indian Health Board, National Congress of American Indians, National Council of Urban Indian Health, Indian Health Service). The TTAG Strategic Plan for 2010 to 2015 may be found at http://www.nihb.org/tribal_resources/cms_ttag.php. The CMS TTAG Data Project provides critical information to inform TTAG. The Data Project is funded by a contract from the National Indian Health Board, which was awarded funding from the Tribal Affairs Group of the Centers for Medicare and Medicaid Services.

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