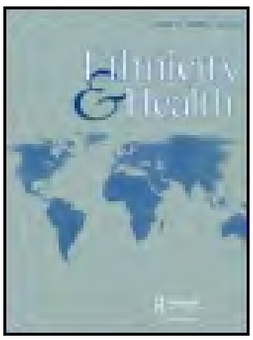

Ethnicity & Health

ISSN: 1355-7858 (Print) 1465-3419 (Online) Journal homepage: https://www.tandfonline.com/loi/ceth20

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To cite this article: Leah Frerichs, Ronny Bell, Kristen Hassmiller Lich, Dan Reuland & Donald K. Warne (2019): Health insurance coverage among American Indians and Alaska Natives in the context of the Affordable Care Act, Ethnicity & Health, DOI: 10.1080/13557858.2019.1625873

To link to this article: https://doi.org/10.1080/13557858.2019.1625873

Published online: 10 Jun 2019.

ETHNICITY & HEALTH
https://doi.org/10.1080/13557858.2019.1625873

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Health insurance coverage among American Indians and Alaska Natives in the context of the Affordable Care Act

Leah Frerichs [a], Ronny Bell[b,c], Kristen Hassmiller Lich[a], Dan Reuland[a] and Donald K. Warne[d]

[a]Department of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC, USA; [b]Department of Public Health, East Carolina University, Greenville, NC, USA; [c]North Carolina American Indian Health Board, Winston-Salem, NC, USA; [d]School of Medicine and Health Sciences, University of North Dakota, Grand Forks, ND, USA

ABSTRACT

Objectives: American Indians and Alaska Natives (AI/AN) have a unique healthcare system uniquely interwoven with the Affordable Care Act (ACA). The aim of this study is to document changes in health insurance among AI/AN adults before and after implementation of the ACA.

Design: We used data from the American Community Survey from 2008 to 2016 to examine trends in health insurance. We compared to Non-Hispanic Whites and stratified AI/AN adults with and without Indian Health Service (IHS) coverage. We used multivariate regression to evaluate the probability of health insurance post-ACA and included time period and subgroup interaction terms.

Results: Public and private health insurance coverage increased post-ACA by 3.17 and 1.24 percentage points, respectively, but the percent uninsured remained high (37.7% of those with IHS coverage and 19.2% of those without). AI/AN in Medicaid Expansion states had a significantly greater percentage point (pp) increase in public insurance (6.31 pp, 95% CI 5.04–7.59) than AI/AN in non-expansion states ($p < 0.001$). There was a greater increase in private coverage among AI/AN without IHS compared to AI/AN with IHS coverage ($p = 0.002$).

Conclusions: Despite improvements in healthcare insurance coverage for AI/AN, substantial disparities remain. The improvements appeared to be largely driven by Medicaid Expansion. Without specific considerations for AI/AN, future healthcare reforms could intensify health injustices and inequities they face.

ARTICLE HISTORY
Received 15 November 2018
Accepted 27 May 2019

KEYWORDS
United States Indian health Service; Patient Protection and Affordable Care Act; Indians; North American; adult

Introduction

Studies have documented the Patient Protection and Affordable Care Act's (ACA) effect on public and private health insurance coverage among US citizens (Alcala et al. 2017; Buchmueller et al. 2016; Chavez et al. 2017; Chen et al. 2016; Courtemanche et al. 2017; Frean, Gruber, and Sommers 2017; Graves and Nikpay 2017; Islam, Yi, and Trinh-Shevrin

CONTACT Leah Frerichs leahf@unc.edu Department of Health Policy and Management, University of North Carolina, 1102C McGavran-Greenberg Hall, Campus Box 7411, Chapel Hill, NC 27599-7411

2017; Kaestner et al. 2017; Kozloff and Sommers 2017; Martinez, Ward, and Adams 2015; Novak, Williams-Parry, and Chen 2017; Ortega et al. 2017; Sommers et al. 2016; Soni, Hendryx, and Simon 2017; Wherry and Miller 2016). Studies have examined ACA's effects by race and ethnicity and highlighted its potential to address long-standing disparities in health insurance coverage (Buchmueller et al. 2016; Chen et al. 2016; Martinez, Ward, and Adams 2015; Novak, Williams-Parry, and Chen 2017), but only one brief research letter provided a concise and focused analysis of ACA effects on American Indian and Alaska Natives (AI/AN) with limited context and subgroup analyses (Frean et al. 2016). Compared to any other US population, AI/AN have a unique political status and legal basis for healthcare services, which necessitates a deeper analysis and interpretation of findings within the historically complex relationship between AI/AN tribes and state and federal governments. Due to this complex relationship, their healthcare system is distinctly separate from, but intricately connected to, the broader US healthcare system and policies, including the ACA. The ACA's effect on AI/AN health insurance deserves special attention, especially as ACA's future remains uncertain and healthcare reform debates are ongoing.

Codified by numerous treaties, executive orders, and federal legislation, the US federal government has a trust responsibility to provide health services to AI/AN (Warne 2011; Warne and Frizzell 2014; Warne, Kaur, and Perdue 2012; Westmoreland and Watson 2006). Trust responsibility for healthcare has primarily been upheld through the Indian Health Service (IHS), a federally-funded system of clinics and hospitals for AI/AN throughout the US that are operated either federally or by tribes themselves. Although IHS does provide healthcare, it is not a health insurance program. Moreover, as documented by a 2003 report from the US Commission on Civil rights, IHS has failed to fulfill the federal trust responsibility due to chronic underfunding, a rationing of healthcare services, and unmet healthcare needs (US Commission on Civil Rights 2003). Case in point, IHS per capita funding is less than any other federal healthcare program including prisoner healthcare spending, and spending gaps between IHS and other federal programs have only increased since 2003 (US Commission on Civil Rights 2003; Warne and Frizzell 2014; Westmoreland and Watson 2006; Indian Health Service 2017; National Congress of American Indians 2016).

The accessibility and availability of IHS services is also problematic. The services that IHS facilities provide are limited (e.g. few have the capacity to provide mammography or colonoscopy) (Warne, Kaur, and Perdue 2012). When a facility cannot provide services directly, 'Purchased and Referred Care' funds must be approved to pay for referrals to the private sector. Since IHS is severely underfunded (roughly half of estimated need), referrals are often only approved for urgent and 'life or limb' services (Warne and Frizzell 2014; Warne, Kaur, and Perdue 2012). Furthermore, IHS facilities are located primarily in rural, tribal reservation areas. If, for example, AI/AN move to urban areas for employment opportunities, they are often hundreds of miles from the nearest IHS facility. Finally, access to IHS is limited to members of federally recognized tribes. AI/AN not formally enrolled or from state-only recognized tribes may not be eligible (Indian Health Service 2018).

Policy advocates and tribal leaders have endorsed various legislation to improve healthcare for AI/AN. One major item on the AI/AN health policy agenda has been to change AI/AN healthcare spending from discretionary to mandatory (Westmoreland and Watson

2006; National Indian Health Board 2017). Unfortunately, to this day, IHS funding is considered discretionary and, as the name implies, is provided at the discretion of Congress. In contrast, mandatory and entitlement programs such as Medicaid are guaranteed funds in advance of annual appropriations. Over the years, reliance on discretionary spending has led to funding levels for IHS that are increasingly insufficient to meet actual need (Westmoreland and Watson 2006). Positively, the ACA permanently reauthorized the Indian Health Care Improvement Act (IHCIA, Section 10221 of ACA), which had expired in 2000. Although the IHCIA did not change IHS funding to mandatory, it is a backbone piece of legislation now incorporated into the ACA that reaffirmed the federal government's trust responsibility for health services and authorized Congress to expand IHS funding and programing (Warne et al. 2017).

The ACA's permanent reauthorization of the IHCIA *reaffirmed* the foundational authority of IHS programs (both those federally and tribally operated) to bill for and receive reimbursements from Medicaid, Medicare and other private, third-party insurers—as originally authorized by the IHCIA amendments in 1988 (106th Congress 1999–2000; Ross et al. 2015). AI/AN, as residents of their tribal nations, the US and their state, are eligible for IHS as well as other governmental programs including Medicaid and Medicare if they meet the respective program's eligibility criteria. As mandatory entitlement spending programs, Medicare and Medicaid have played a growing role in helping AI/AN obtain health services (Warne and Frizzell 2014; Wong et al. 2006). However, there are notable challenges for AI/AN to benefit from these programs. For example, a study of matched AI/AN and White patients seen in the same clinics documented that AI/AN received lower volumes of services and Medicaid paid less per person for AI/AN than Whites (after adjusting for demographics, eligibility and health risks) (Wong et al. 2006). The challenges are due in part to administrative and policy barriers that the ACA aimed to rectify. For example, the ACA included provisions to make IHS facilities 'express lane' agencies to simplify Medicaid enrollment for AI/AN (Section 2901c of ACA).

Medicaid Expansion, as part of ACA, also has significant potential to benefit AI/AN individually and the IHS system (Ross et al. 2015). Individually, AI/AN who live at or below the 138% Federal Poverty Level in Medicaid Expansion states can enroll and gain access to benefits and providers who accept Medicaid that are not directly available through IHS. At a system level, because many AI/AN live at or below 138% of the Federal Poverty Level (Fox and Boerner 2012), increasing Medicaid coverage among AI/AN can also contribute to increased reimbursement revenue for IHS and tribal facilities and decrease the burden on IHS's Purchased and Referred Care limited funding. However, AI/AN use of federal healthcare benefits such as Medicaid is also wrought with tension and some AI/AN have been reluctant to enroll. Although some argue that Medicaid is an additional federal healthcare benefit that can be considered a component of the federal trust responsibility, some are concerned that requesting AI/AN to enroll in these programs is a step toward the federal government relinquishing its trust responsibility (Warne and Frizzell 2014).

The ACA also afforded AI/AN several special provisions related to private insurance (Artiga, Arguello, and Duckett 2013). The provisions were focused on improving the access and ability of AI/AN to obtain private coverage, which may be especially critical to AI/AN who do not have access to IHS or other federal healthcare programs. The provisions include special enrollment and fee considerations. First, AI/AN are allowed to

enroll in the private marketplace at any time without the same restrictions to enrollment periods. Second, AI/AN who purchase qualified health plans through the exchange have zero cost-sharing for essential health benefits. Finally, AI/AN who do not maintain minimum essential coverage under ACA are exempted from the shared responsibility payment.

AI/AN are in a complex situation in terms of healthcare policy in the US, and the ACA's provisions have significant potential to influence AI/AN health insurance coverage. However, only one study to date has examined effects of ACA specifically on AI/AN, which used only 1 year of post-ACA data and provided a limited assessment of important factors (Frean et al. 2016). Questions remain about how AI/AN health insurance has changed since the ACA was implemented or how different factors have influenced coverage changes such as state of residence (Medicaid Expansion or not) or IHS coverage. The objectives of this study were to: (1) document trends of health insurance coverage among AI/AN adults before and after implementation of major provisions of the ACA and (2) assess the extent to which changes in health insurance coverage after the ACA was implemented have differed by state of residence, IHS access, and sociodemographic factors.

Materials and methods

Data

Data for this study came from the American Community Survey (ACS) including the years 2008–2016. The ACS is conducted by the United States Census Bureau, which is the largest household survey in the US (US Census Bureau 2015). The survey consists of repeated cross-sections of about 3 million individuals per year and is designed to be nationally and state representative. Our study sample included all non-elderly adults (19–64 years of age) who self-identified as AI/AN alone. There was an average of approximately 18,370 AI/AN per year in our sample. The large sample size of AI/AN in the ACS is a key advantage of the dataset compared to others commonly used to study healthcare coverage (e.g. Medical Expenditure Panel Survey, National Health Interview Survey), which have only a few hundred AI/AN in their samples per year. Furthermore, the ACS includes a range of detailed information on socioeconomic status and demographics. It has been used previously in studies of ACA impact (Buchmueller et al. 2016; Frean, Gruber, and Sommers 2017; Soni, Hendryx, and Simon 2017), but has not been used to examine effects on AI/AN populations.

Measures

Our dependent variables were three measures of health insurance coverage: any insurance (public or private), public insurance, and private insurance. The measures were defined as follows:

Any coverage

The ACS asks about current healthcare coverage and provides a list of possible sources. Any health insurance was defined as a 'yes' response to any one of the following

sources: insurance through a current or former employer or union, insurance purchased directly from an insurance company, Medicare, Medicaid/Medical Assistance/or any kind of government-assistance plan for those with low incomes or a disability, TRICARE or other military health care, or Veterans Administration. Individuals who indicated at least one of the sources were considered insured (and none of these as uninsured). IHS is not a health insurance program, and it is not considered as such in this analysis.

Public insurance

Individuals were defined as having public insurance if they indicated a yes to one or more of the following sources: Medicare, Medicaid/Medical Assistance/or any kind of government-assistance plan for those with low incomes or a disability, TRICARE or other military health care, or Veterans Administration. If an individual indicated both a public and a private insurance source, they were categorized as publicly covered.

Private coverage

Individuals were defined as having private insurance if they indicated coverage from any of the following sources but no others: insurance through a current or former employer or union or insurance purchased directly from an insurance company.

To understand how health insurance changed before and after the provisions of ACA were implemented, we created a pre and post ACA variable as follows:

Pre/post ACA

A dichotomous measure of time period; pre-ACA was 2008–2013 and post-ACA was 2014–2016 (based on when ACA's health exchanges for private insurance and Medicaid Expansion were initiated).

We also included variables to assess the influence of access to IHS programs and living in a Medicaid Expansion state as follows:

Indian health service

A dichotomous measure of whether a respondent indicated coverage by IHS or not.

Medicaid expansion state

We defined an expansion indicator based on the state of residence. All 50 states were included in the analysis. The indicator equaled 1 if the state enacted Medicaid Expansion. In 2014 this included: Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Hawaii, Illinois, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Rhode Island, Vermont, Washington, West Virginia, and New Hampshire. In 2015, the included the states of Indiana, Pennsylvania, and Alaska.

We also included demographic and socioeconomic covariates of age, gender, employment status, household income, and marital status.

Analyses

Statistical analyses were run on repeated cross-sectional ACS data by year (2008–2016). Analyses were conducted using SAS 9.4 (SAS Institute, Cary, NC) and used sampling

weights and domain analyses to provide nationally representative estimates. First, we examined the percent of individuals who were without any insurance, publicly insured, and privately insured each year and compared AI/AN to White Non-Hispanic individuals. Then among AI/AN, we stratified by IHS access, and examined the three main health insurance variables by year.

We used an interrupted time series design to examine the main effects of ACA provisions on AI/AN health insurance coverage. We used a level change impact model (Lopez Bernal, Cummins, and Gasparrini 2016) and estimated multivariate regression models for each of the three health insurance dependent variables:

$$Y_{\text{ist}} = \beta_0 + \beta_1 * \text{Year}_t + \beta_2 * \text{Post}_t + \beta_3 * \mathbf{X}_{\text{ist}} + \delta * \text{State}_s$$

where Y_{ist} represents a binary health insurance coverage outcome for individual *i* living in state *s* in year *t*. $Year_t$ represents the time elapsed since 2008 (in years) so that β_1 represents the pre-ACA trend (Lopez Bernal, Cummins, and Gasparrini 2016). $Post_t$ is the binary pre/post ACA variable equal to 1 after ACA (i.e. 2014–2016) and 0 prior (2008–2013). The **X** is a vector of covariates: age, gender, income, employment and marital status. $State_s$ is a vector of state-fixed effects.

To estimate the differential impact of ACA implementation by sociodemographic factors (i.e. age, gender, income, employment and marital status), whether or not AI/AN have access to IHS, and for AI/AN residing in Medicaid Expansion states, we included an additional interaction term between the respective factor and the $Post_t$ variable. In all models, robust standard errors adjust for clustering using jackknife estimation.

Results

The AI/AN-White disparity gap of uninsurance decreased from an average of 23.0 percentage points pre-ACA to 18.1 percentage points in 2016 (Figure 1a). However, many AI/AN remained without coverage. Each year, approximately 55% of AI/AN indicated they did not have coverage by IHS (data not shown). In 2016, 17.5% of AI/AN without IHS coverage remained uninsured; 37.7% of AI/AN with IHS coverage remained uninsured (Figure 2).

In general, trends indicated that after ACA both AI/AN and Whites had increases in private and public insurance (Figure 1b and 1c). After ACA, both AI/AN with and without IHS coverage increased in public and private insurance, but AI/AN who did not have IHS coverage appeared to increase more in private insurance than AI/AN who had access to IHS (Figure 2). The relative post-ACA increases in public insurance appeared similar for AI/AN who did and did not have IHS coverage.

Table 1 provides the main effects of the ACA and sociodemographic factors on any health insurance, private insurance, and public insurance among non-elderly adult AI/AN. The percentage of any insurance for AI/AN increased after ACA (4.41, 95% CI 3.05–5.77). The percentage of both public and private insurance increased post-ACA compared to pre-ACA, but the percentage point increase of public insurance (3.17, 95% CI 2.13–4.21) appeared slightly greater than the percentage point increase of private insurance (1.24, 95% CI 0.07–2.40). Compared to AI/AN without IHS coverage, AI/AN with IHS coverage had significantly lower probability of public (−3.21, 95% CI −3.99, −2.44) and private health insurance (−12.92, 95% CI −13.65, −12.19).

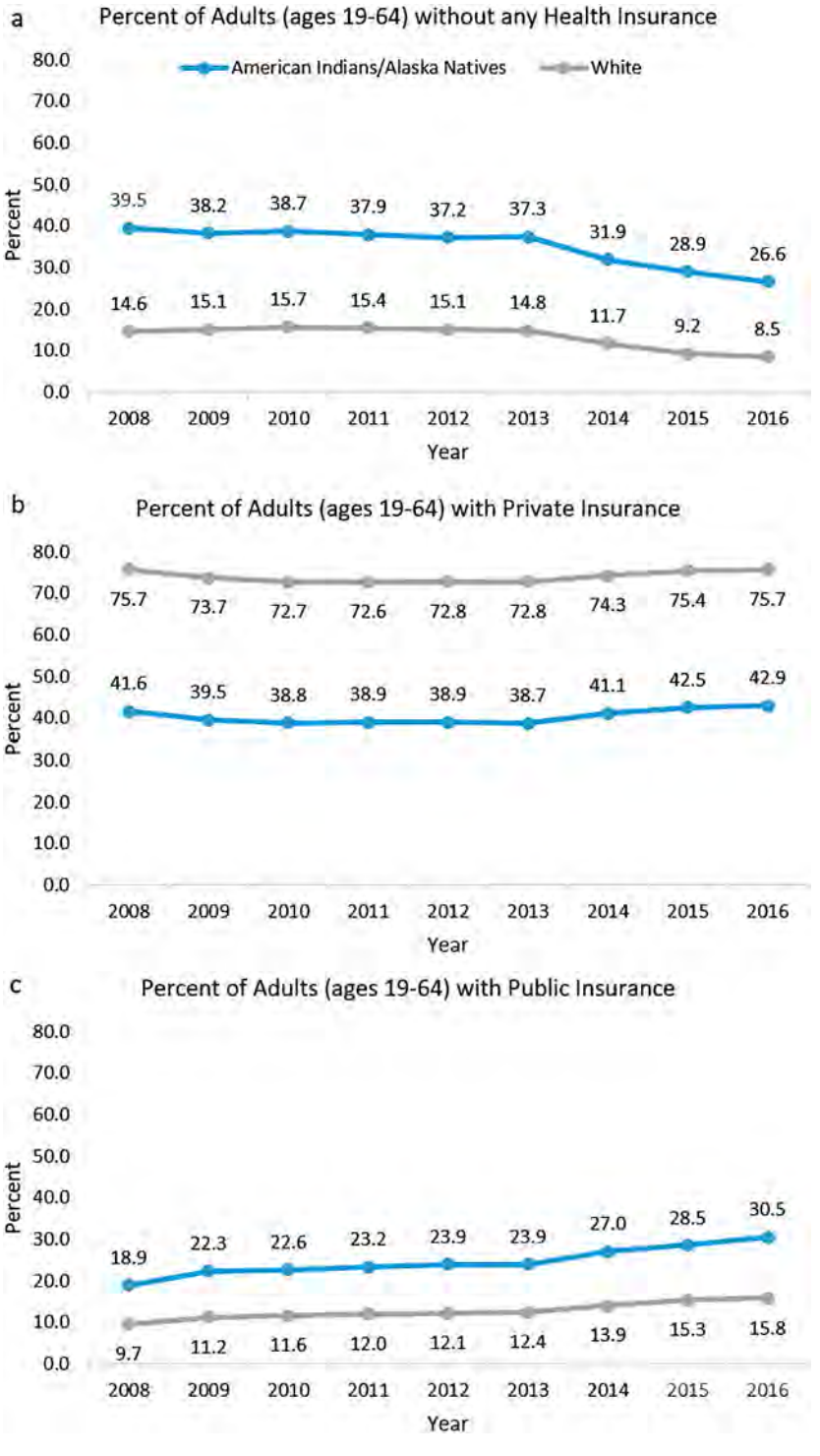

Figure 1. Trends in health insurance coverage among AI/AN and Whites. Percent of Non-Hispanic Whites and AI/AN with/without insurance coverage from 2008 to 2016. a) Percent without any insurance, b) Percent with public insurance, c) Percent with private insurance.

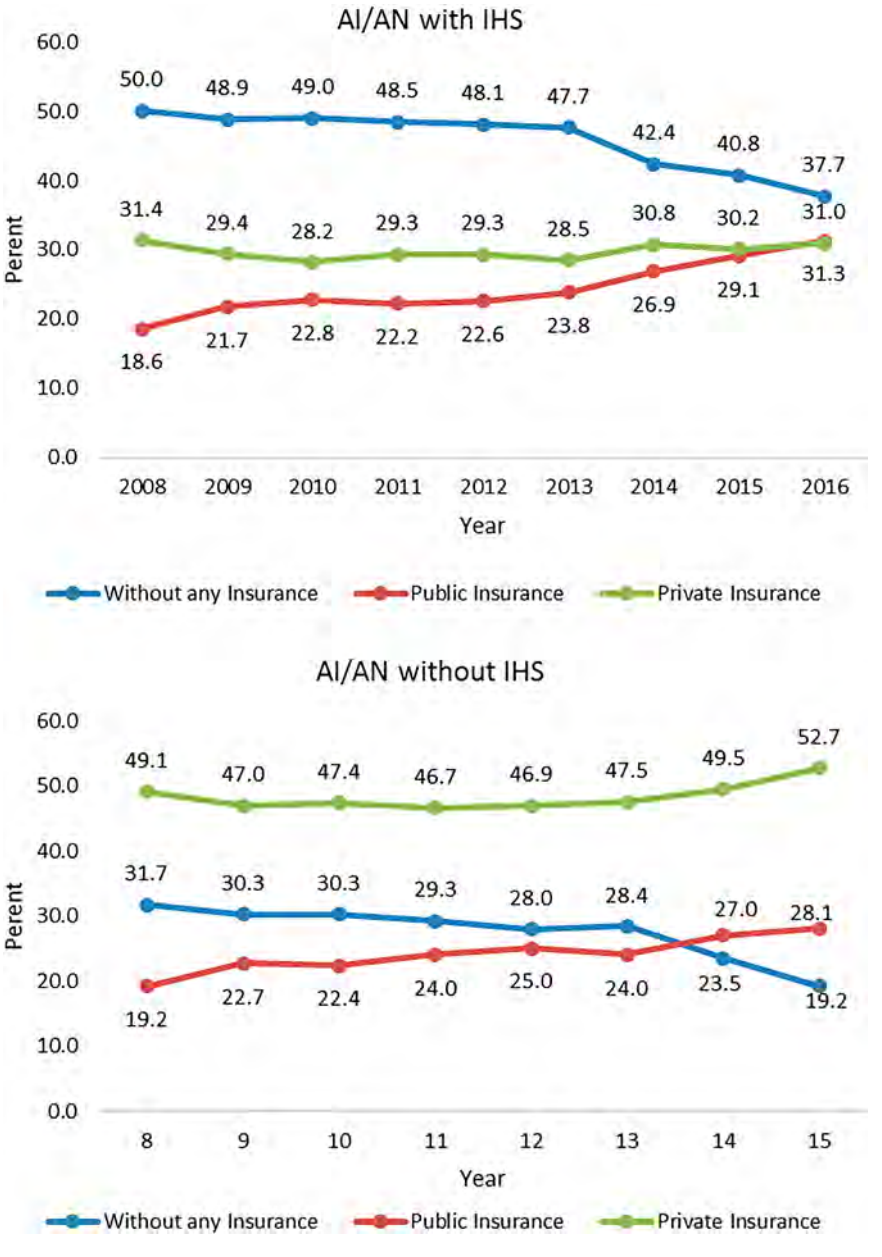

Figure 2. Trends in health insurance coverage among AI/AN with and without IHS coverage. Percent of AI/AN without any insurance, with public insurance, and with private insurance coverage from 2008 to 2016. a) AI/AN with IHS coverage, b) AI/AN without IHS coverage.

Table 2 presents the differential impact ACA had on AI/AN based on socio-demographics, IHS coverage, and residence in a Medicaid Expansion state. There were differential impacts by income. AI/AN in the 100–139% federal poverty level income bracket had the greatest post-ACA percentage point increase in any insurance coverage (10.31, 95% CI 7.49–13.13) and public insurance (8.56, 95% CI 5.68–11.43). There were no significant differences in the change in private insurance based on income level. The post-

Table 1. Effect of Sociodemographic factors and ACA on Health Care Coverage among AI/AN.

	Any Health Care Coverage			Public Coverage			Private Coverage		
	pp	(95% CI)	*p*-value	pp	(95% CI)	*p*-value	pp	(95% CI)	*p*-value
Gender									
Male	−8.29	(−8.84, −7.74)	<.0001	−2.33	(−2.88, −1.78)	<.0001	−5.96	(−6.51, −5.41)	<.0001
Female (Ref)	-			-			-		
Age									
Ages 19–29	−7.17	(−8.03, −6.3)	<.0001	−6.78	(−7.61, −5.95)	<.0001	−0.38	(−1.33,0.56)	0.419
Ages 30–39	−5.65	(−6.58, −4.73)	<.0001	−4.37	(−5.16, −3.57)	<.0001	−1.29	(−2.17, −0.41)	0.005
Ages 40–49	−4.90	(−5.78, −4.01)	<.0001	−4.73	(−5.46, −4.01)	<.0001	−0.16	(−1.06,0.74)	0.722
Ages 50–65 (Ref)	-			-			-		
Employment Status									
Unemployed	−11.91	(−13.06, −10.76)	<.0001	12.46	(11.48,13.43)	<.0001	−24.37	(−25.25, −23.48)	<.0001
Not in labor force	−1.06	(−1.77, −0.34)	0.004	23.18	(22.55,23.8)	<.0001	−24.23	(−24.82, −23.64)	<.0001
Employed (Ref)	-			-			-		
Income %FPL									
<100% FPL	−22.10	(−23.26, −20.94)	<.0001	22.76	(21.71,23.81)	<.0001	−44.86	(−45.84, −43.87)	<.0001
100–139% FPL	−20.86	(−22.43, −19.3)	<.0001	22.52	(21.18,23.86)	<.0001	−43.38	(−44.7, −42.06)	<.0001
139%—199% FPL	−19.85	(−21.21, −18.48)	<.0001	12.78	(11.93,13.62)	<.0001	−32.62	(−33.96, −31.29)	<.0001
200%—399% FPL	−11.21	(−12.2, −10.22)	<.0001	4.57	(3.96,5.19)	<.0001	−15.78	(−16.86, −14.7)	<.0001
>400% FPL (Ref)	-			-			-		
Marital Status									
Never married	−8.82	(−9.56, −8.07)	<.0001	0.18	(−0.54,0.89)	0.623	−8.99	(−9.74, −8.25)	<.0001
Widowed	−5.05	(−6.97, −3.12)	<.0001	3.34	(1.48,5.21)	0.001	−8.39	(−9.99, −6.79)	<.0001
Divorced/Separated	−5.37	(−6.17, −4.58)	<.0001	4.22	(3.47,4.96)	<.0001	−9.59	(−10.42, −8.76)	<.0001
Married (Ref)	-			-			-		
IHS Access									
Yes	−16.13	(−16.99, −15.28)	<.0001	−3.21	(−3.99, −2.44)	<.0001	−12.92	(−13.65, −12.19)	<.0001
No (Ref)	-			-			-		
ACA									
Post	4.41	(3.05,5.77)	0.0004	3.17	(2.13,4.21)	<.0001	1.24	(0.07,2.4)	0.321
Pre (Ref)	-			-			-		

Notes: pp = percentage point; Models (one per insurance variable) are interrupted time series levels only design with state fixed effects.

Table 2. Differences in pre- to post-ACA percentage point (pp) change in health insurance based on sociodemographic factors among AI/AN.

	Any Health Insurance			Public Insurance			Private Insurance		
Interaction Term	pp	(95% CI)	*p*-value	pp	(95% CI)	*p*-value	pp	(95% CI)	*p*-value
Pre/Post ACA*Gender									
Male	4.67	(3.13, 6.22)	0.432	2.78	(1.64, 3.92)	0.188	1.9	(0.62, 3.18)	0.011
Female (Ref)	4.15	(2.67, 5.63)		3.56	(2.31, 4.8)		0.6	(−0.66, 1.85)	
Pre/Post ACA*Age									
Ages 19–29	6.44	(4.67, 8.22)	0.001	2.44	(1.13, 3.75)	0.031	0.85	(−0.42, 2.13)	0.047
Ages 30–39	5.22	(3.23, 7.21)	0.028	2.50	(1.06, 3.94)	0.122	−0.04	(−1.71, 1.63)	0.455
Ages 40–49	2.46	(7.88, 4.13)	0.296	3.76	(2.17, 5.36)	0.929	1.45	(−0.09,3.00)	0.273
Ages 50–64 (Ref)	3.29	(1.82, 4.75)		4.00	(2.66, 5.35)		2.44	(0.69, 4.20)	
Pre/Post ACA*Employment									
Unemployed	11.13	(8.27, 14.00)	<.0001	7.85	(5.24, 10.46)	<.0001	3.28	(1.09, 5.47)	0.084
Not in labor force	4.44	(2.88, 6.00)	0.115	4.06	(2.58, 5.55)	0.001	0.38	(−1.02, 1.77)	0.105
Employed (Ref)	3.28	(1.82, 4.74)		1.86	(0.83, 2.88)		1.42	(0.12, 2.73)	
Pre/Post ACA*FPL									
<100% FPL	6.10	(4.36, 7.83)	<.0001	5.54	(3.93, 7.16)	<.0001	0.55	(−0.76, 1.87)	0.807
100–139% FPL	10.31	(7.49, 13.13)	<.0001	8.56	(5.68, 11.43)	<.0001	1.75	(−0.35, 3.86)	0.274
139%–199% FPL	6.23	(4.17, 8.29)	<.0001	4.50	(2.59, 6.4)	<.0001	1.73	(−0.38, 3.85)	0.232
200%–399% FPL	3.62	(1.66, 5.57)	<.0001	1.42	(0.13, 2.71)	<.0001	2.2	(0.36, 4.03)	0.073
>400% FPL (Ref)	−0.93	(−2.87, 1.02)		−1.24	(−2.61, 0.14)		0.31	(−1.44, 2.06)	
Pre/Post ACA*Marital Status									
Never married	6.29	(4.59, 8.00)	<.0001	4.11	(2.75, 5.46)	<.0001	2.19	(0.78, 3.59)	0.064
Widowed	5.20	(1.21, 9.19)	0.128	5.62	(1.69, 9.55)	0.028	−0.42	(−3.78, 2.93)	0.429
Divorced/Separated	4.97	(2.94, 7.00)	0.003	5.12	(3.74, 6.50)	<.0001	−0.15	(−1.84, 1.55)	0.207
Married (Ref)	2.01	(0.51, 3.50)		1.08	(−0.05, 2.21)		0.92	(−0.42, 2.27)	
Pre/Post ACA*IHS Access									
Yes	4.01	(2.31, 5.71)	0.358	3.92	(2.64, 5.20)	0.033	0.09	(−1.19, 1.38)	0.002
No (Ref)	4.75	(3.29, 6.20)		2.54	(1.37, 3.71)		2.21	(0.83, 3.58)	
Pre/Post ACA*Exp. State									
Non Expansion State	1.50	(−0.06, 3.07)	<.0001	−1.11	(−2.14, −0.07)	<.0001	2.61	(1.11, 4.11)	<.0001
Expansion State	6.45	(4.99, 7.92)		6.18	(4.89, 7.48)		0.27	(−0.86, 1.41)	

Notes: pp = percentage point; All models include main effects of all factors and interaction terms added individually.

ACA increase in private insurance was significantly higher for male AI/AN than females and significant lower for young AI/AN individual (ages 19–29) than older (ages 50–64). AI/AN without IHS had a significant post-ACA increase in private insurance compared to pre-ACA (2.21, 95% CI 0.83–3.58), but AI/AN with IHS did not have significantly higher post-ACA increases in private insurance (0.09, 95% CI −1.19–1.38). The post-ACA increase in public insurance was higher for AI/AN with than those without IHS ($p = 0.033$).

AI/AN in Medicaid Expansion states had a significantly greater post-ACA increase in any (6.45, 95% CI 4.99–7.92) and of public insurance (6.18, 95% CI 4.89–7.48) than AI/AN in non-expansion states ($p < .0001$). Conversely, AI/AN in non-Medicaid Expansion states had a significantly greater post-ACA increase in private insurance (2.61, 95% CI 1.11–4.11) than AI/AN in Medicaid Expansion states (0.27, 95% CI −0.86–1.41) ($p < .0001$).

Discussion

The findings from our study provides a necessary follow-up to a prior brief report (Frean et al. 2016) with a detailed assessment of how ACA has impacted non-elderly adult AI/AN. Our study suggests that the ACA's provisions have had an impact on healthcare insurance coverage among AI/AN, but substantial disparities remain. Some believe that healthcare insurance is less of a concern among AI/AN because of IHS, but we found that approximately half of AI/AN lack IHS coverage and of those, 20% remain uninsured today. The majority of the improvements in health insurance came from increases in public healthcare insurance coverage, which appeared to be driven by Medicaid Expansion. Conversely, smaller gains in private insurance coverage were observed among AI/AN, that were of greater magnitude in non-Medicaid expansion states and among AI/AN without access to IHS. Additional policies and programs are needed to improve coverage for AI/AN populations. Ongoing healthcare policy reform needs to include special consideration of the ramifications on the AI/AN population and upholding federal trust responsibilities to tribes.

Our results suggest that ACA influenced any, public and private insurance among AI/AN, with the greatest impact resulting from gains in public insurance. The effects diminished the disparity gap in health insurance coverage between AI/AN and Whites, but AI/AN continue to face a disparity in coverage. Studies have similarly documented that the ACA has narrowed, but not eliminated, coverage gaps among other racial and ethnic groups including Black, Hispanic, and Asian populations (Buchmueller et al. 2016; Chen et al. 2016; Martinez, Ward, and Adams 2015; Novak, Williams-Parry, and Chen 2017). Our findings suggest that the ACA's provisions, including those specifically targeted at improving healthcare coverage for AI/AN, have had the intended effect. However, clear gaps in coverage remain and the ACA should not be considered a panacea for the federal government to uphold its trust responsibility.

The larger increase in public insurance in Medicaid Expansion states and among the 100–139% FPL income bracket suggest that the improvements are largely due to Medicaid Expansion. Using only one year of post-ACA data (2012–2014), Frean et al. 2016 also found that significantly greater increases in Medicaid coverage was observed among AI/AN in expansion compared to non-expansion states (Frean et al. 2016). With three years of post-ACA data, our study strengthens these findings and is also consistent with

other studies that have evaluated the beneficial impact of Medicaid Expansion among the general population and other subgroups (e.g. young adults, women) (Courtemanche et al. 2017; Jones and Sonfield 2016; Kaestner et al. 2017; Simon, Soni, and Cawley 2017; Sommers et al. 2014; Soni, Hendryx, and Simon 2017; Wherry and Miller 2016).

Conversely, the Frean et al. 2016 study did not find a significant difference in the increase in private coverage among AI/AN in expansion compared to non-expansion states; (Frean et al. 2016) whereas, we found evidence that private insurance increased more among AI/AN in non-expansion states. It appears that over time more AI/AN have taken advantage of private insurance in states where public insurance options are more limited. We also found that private insurance increased more among AI/AN without IHS coverage. AI/AN without IHS coverage may be located further from IHS or tribal facilities and have more incentive to seek healthcare insurance coverage. Our study provides new evidence that not only has Medicaid Expansion increased public healthcare insurance coverage among AI/AN populations in the states where it has occurred, but the ACA private insurance exchanges may have increased private coverage among AI/AN, albeit to a smaller degree.

Despite the promising evidence regarding post-ACA increases in private coverage among AI/AN, the increase was relatively small. As with the general population, the small increase may suggest that many AI/AN also view the private insurance premiums as unaffordable (Kantarjian 2017). The smaller increase among AI/AN with IHS coverage may be due to misperceptions of IHS as 'insurance'. Unfortunately, having access to an underfunded source of care is not the same as having health insurance. Purchase of private insurance among AI/AN may also be influenced by fears that it will result in decreased funding for IHS.

The policy implications of our study are not straightforward. Some view ACA as the largest expansion of Indian Health for decades; yet, integrating AI/AN healthcare policy within broader US healthcare policy reform raises new questions about federal trust responsibility (Warne and Frizzell 2014). AI/AN have been impacted by ACA and increases in healthcare insurance coverage were seen. Medicaid Expansion, specifically, has had an influence. It is important to note that state funds should not be used to pay for Medicaid-covered services in IHS (federal and tribally operated) facilities since states are reimbursed with 100% Federal Medical Assistance Percentage for the services (Skinner 2016; Warne et al. 2017). Thus, this improvement may be viewed as a component of the federal trust responsibility to provide health services for AI/AN. Yet, complex tribe-state-federal relationships are salient. AI/AN who live in states who have not expanded Medicaid are at the behest of state policy to receive what is technically a federal benefit. Several states that have not expanded Medicaid have relatively large and impoverished AI/AN populations (e.g. South Dakota, Wyoming) who need improvements in healthcare access. Medicaid policy decisions have important implications for the potential of improving resources to IHS and tribal facilities via third-party reimbursement. States may need to consider Medicaid policy for AI/AN separately from other populations and should be done in consultation with tribes.

Our study findings also have important implications related to the uncertainties and debates about future healthcare reforms. Thus far, the impact on AI/AN has been largely missing from the conversation. This population is especially significant to consider because the IHCIA and AI/AN provisions to uphold the federal trust responsibility are

now deeply connected with the ACA. The impact of a fully funded Prevention and Public Health Fund (Section 4002 of the ACA) also needs to be studied for potential outcomes. Our study documented that more AI/AN have gained health insurance coverage, and repeal of ACA and other proposed changes to health insurance and Medicaid (e.g. per capita caps) would result in many AI/AN losing access to health services. Without specific considerations for AI/AN, an ACA repeal could be considered a withdrawal from federal trust responsibilities and intensification of health injustices and inequities for AI/AN.

Limitations

The cross-sectional nature of ACS limits our ability to look at longitudinal, within-person effects. The ACS 1-year sampling also may be less representative of individuals in less densely population areas. Since substantial numbers of AI/AN live in rural areas, our results are not generalizable to AI/AN in specific rural areas and future analyses should explore differential impacts of ACA on AI/AN in rural compared to urban areas. The ACS measures also have limitations. We cannot distinguish if AI/AN are enrolled members of federally recognized tribes, which has implications for IHS eligibility. IHS coverage was a somewhat crude self-reported measure with a binary response option. Individuals may interpret 'coverage' differently (e.g. based on distance from the nearest facility or eligibility).

Conclusions

Despite the notable improvements in health insurance coverage among AI/AN, it must be stated that the ACA was only a small step to potentially address the health disparities faced by this population. First, more studies are needed to further explore how changes in coverage have influenced utilization and health outcomes among AI/AN. This includes studies to assess how different types of insurance and healthcare coverage influence individual-level outcomes such as cancer screening and use of preventive services as well as studies to evaluate how health insurance at facility levels influence group level outcomes and improvements. Second, it is not likely that improvements in healthcare access will solve the issues of health and social injustices faced by AI/AN. Policies need to also consider how to reduce political and environmental racism and improve investment in broader social services that emphasize reductions in poverty. Greater investment in public health infrastructure and mental health services could potentially serve AI/AN in the long-term.

The extended details and context that our study provided goes beyond prior brief reports and is critical to legitimize the complexities and bring a voice to AI/AN healthcare policy challenges. AI/AN healthcare policy has a complex history that is separate yet interwoven into broader US healthcare policy and deserves more attention within the current healthcare reform debates. AI/AN have been and will continue to be influenced by US healthcare reform and policy makers need to pay special attention to their concerns. Tribes face substantial challenges to improve healthcare and health outcomes for their people, and the federal government should provide appropriate resources and infrastructure to fulfill its treaty obligations and trust responsibilities to the AI/AN population.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Leah Frerichs http://orcid.org/0000-0002-2507-3789

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