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The Patient Protection and Affordable Care Act and Utilization of Preventive Health Care Services Among Asian Americans in Michigan during Pre- and Post-Affordable Care Act Implementation

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Abstract

Since the implementation of the Patient Protection and Affordable Care Act (ACA), significant increases in the percent of insured United States residents has steadily increased. Studies have shown that there is an increase in preventative services usage and a decrease in chronic disease burden with increased access to insurance. However, very little has been studied about how the implementation of ACA has impacted utilization of health services and health status among Asian Americans. In this study, we recruited 427 Asian Americans who attended health fairs and examined (1) changes in health care coverage and utilization of preventive health services before and after ACA, (2) health status on chronic disease risk factors, (3) comparing health services utilization by insurance status and types of insurance, and (4) identifying relationships between health care utilization and demographic factors. Study results indicate that even though the percentage of insured Asian Americans in Michigan increased significantly over study periods, health care utilization and chronic disease burden did not change significantly. The insured tended to utilize preventive health services more than the uninsured, but the types of insurance did not affect health care utilization. Gender and having a primary care physician were significant predictors in determining health care utilization. There is a need in this population for language-appropriate and culturally-sensitive education about the importance and availability of preventive services, which could improve adherence to preventive health services, thereby reducing health disparities.

Keywords Affordable Care Act · Cancer screening · Physical exams · Asian Americans · Medically underserved.

Introduction

The Patient Protection and Affordable Care Act (Public Law. 111–148, 124 Stat. 119), hereinafter rendered as Affordable Care Act (ACA), is a comprehensive legislation that offers the promise of reducing disparities by promoting access to equitable and more efficient health care and has specific provisions that are aimed at eliminating health disparities by improving health care access and quality and tracking more accurately with health disparities [1]. Since the implementation of ACA, the evidence showed significant decreases in the uninsured rate from 16.6% in 1998 to 10.3% in 2016 among the non-elderly population [2].

Several ACA provisions are provided that aim to encourage prevention screening (i.e. health-seeking behaviors) by removing any financial obstacles [3] and also contains a provision that requires private health plans and policies to cover certain screenings such as breast cancer, cervical cancer, and colorectal cancer screening [3]. Additionally, the ACA plays an important role in managing certain chronic conditions such as hypertension, diabetes, cholesterol, and overweight/obesity [4]. The insurance coverage offered by the ACA allows individuals with these chronic conditions to access basic and specialized care at a regular basis to lower their risk for other chronic conditions (such as cardiovascular disease) and manage their conditions to improve their health [4]. Recent data indicates that the percentage of individuals between the ages of 18 and 64 years with such chronic conditions who are uninsured have dropped

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between 2013 and 2014 when the expansions for ACA were implemented [4].

Use of effective preventive health services and early detection interventions remains to be effective strategies in reducing the chronic disease burden. Under the ACA, private health plans and public insurance programs are required to cover preventive health services recommended by the US Preventive Services Task Force at no cost to the patient. Insurance expansion, in theory, should provide better access to care and thus improves the utilization for preventive health services as health services research consistently demonstrates that cost is a significant barrier to health care utilization [5]. As results, it is anticipated that ACA would benefit racial and ethnic minorities who historically have experienced lower coverage rates and access to care. Little is known about health care coverage expansion affecting access to care and utilization of preventive services under the ACA. Early evaluations of ACA impact on improvement of health care access and utilizations have not been documented consistently across different ethnic groups [6–9] and one of such groups is Asian Americans.

Asian Americans are fastest growing racial/ethnic minority group nationally. As of 2016, the total population of Asians (either alone or with one or more other races) is 19,663,833 which constitutes 6.2% of total population [10]. In the state of Michigan, the Asian American population is also growing quickly. From 2010 to 2016, the percent increase of Asian Americans (either alone or with one or more other races) in the state was approximately 20.6% [10, 11]. As of 2016, 336,081 people identified themselves as Asian alone or in combination with one or more races, representing 3.4% of the total state population [10].

Information is scarce about how ACA affects Asian American communities after health care expansion and how the expansion impacts on utilization of preventive services pre- to post-ACA implementation. In current study, we address a gap in the literature relative to understanding health care access and other health outcomes among Asian Americans in Michigan. It contributes to the existing literature by examining health care access and utilization of preventive services from pre- to post-ACA implementation. With the focus on Asian Americans in Michigan with community-level surveys, the aims of current study were to (1) examine health care coverage, preventive health services, and chronic disease risk factors before and after ACA, (2) compare health services utilization by insurance status and types of insurance and private, and (3) determine if healthcare coverage predicts health utilization after controlling education, immigration length, English proficiency, and education levels. This study attempts to contribute to the national dialogue about ACA implementation and health disparities with insights in state-wide perspectives among Asian Americans. The information helps to comprehensively understand the impact of policies across Asian communities and promote health equities on Asian Americans.

Methods

Data Collection and Recruitment

The data below was collected from the participants who attended health fairs held in community settings before ACA (in 2012) and after ACA (in 2016 and 2017). These health fairs were one of the health initiatives that the Healthy Asian Americans Project (HAAP) implemented to promote health and well-being for Asian communities in Michigan. Health fairs were widely publicized through local Asian language media and fairs were held at the setting whereas Asian Americans were familiar with; for example, health center in the community, community center, temples or churches in order to make it easier for participants to attend.

The study protocol was approved by Eastern Michigan University Institutional Review Board (IRB). Fair participants were offered in a separate area and completed a self-administered survey to record their personal demographics and health history. The screening data were derived from blood tests done at the health fairs using standardized machines provided by University of Michigan's Community Outreach Programs; and from blood pressure readings done by trained medical students and Registered Nurses. Informed consent were obtained from participants to allow the research team using de-identified data; study participants were informed about their rights and they could choose not to answer any or all questions. For patients who did not speak English, trained bilingual volunteers helped to administer the surveys verbally.

Measures

The health survey items were derived from the Michigan Health Risk Factor Survey, which adapts the items from National Health Interview Survey and CDC's state-by-state level Behavioral Risk Factor Survey [12]. The survey was initially developed in English and translated into eight Asian languages using standard back translation; process of back translation can be found in previously reported study [13]. The survey consisted of (1) Demographic factors (e.g., age, marital status, education, and income level; length of residence in the U.S., English language proficiency, health status), health care access and utilization insurance coverage (health insurance, access to primary care provider and annual check-up); and (2) cancer screening were assessed within the guidelines for three common cancers: colon cancer (sigmoidoscopy or colonoscopy), breast cancer (mammogram), and cervical cancer (pap test). The specific cancer

screening items took gender and age into consideration. For example, questions regarding the last mammogram participants received had "not applicable" option for male participants. For colorectal cancer screening, study sample was kept among those in 50–75 years old. The cancer screening items were applied using the guidelines established by the U.S. Preventive Services Task Force [14]. The compliance was calculated based on age and gender for study participants; in particular, women were considered to be screened within the guidelines for cervical cancer if they received a Pap smear in the past 3 years (women 21 years or older) and for breast cancer if they had a mammogram within two years (women 40 years or older). For colorectal cancer, participants were considered screened within guidelines if they received one of the following: sigmoidoscopy in the past 5 years or colonoscopy in the past 10 years.

In addition to health survey data, biometric screening that include blood pressure, glucose, total cholesterol, HDL, and body mass index (BMI) measurements were taken using standard procedures. Blood pressure was measured in a seated position on the right arm using the appropriate size cuff and the bell of a standard stethoscope. A fasting (over 12 h) blood specimen was collected and analyzed to test total cholesterol (TC), HDL, and fasting blood glucose (FBS). The sample consisted of approximately 3–4 drops of blood drawn from the fingertips of the participant by using appropriate blood sampling lancets. Height and weight was measured and used to calculate BMI (kg/m^2).

Statistical Analyses

Data were entered into Excel, and imported into the Statistical Package for the Social Sciences (SPSS), version 22.0 (SPSS Inc., Chicago, IL, USA) for descriptive and bivariate statistical analysis. Demographics, health service utilization, and biometric data were summarized and examined using descriptive statistics. Chi square tests for independence were performed to assess differences in healthcare coverage and health service utilization before and after ACA implementation and also the changes in chronic disease risk factors. Finally, multiple regression analyses were used to determine the relationships between preventive service utilization and demographic variables. All analyses were two-tailed and considered statistically significant at $p < 0.05$.

Results

Demographic Characteristics

The sample of Asian Americans consisted of 182 males and 226 females in three data collection points. As shown in Table 1, majority of the participants were females, married,

Chinese and age 40 and older. In addition, more than 90% of participants were immigrants who were not born in the United States and less than half of participants had lived in the United States for 10 or more years. These participants were highly educated whereas more than half reported had a college degree or had gone to graduate school or above and about half of participants reported being employed.

Healthcare Coverage and Preventative Health Services

To determine whether or not healthcare coverage increased after ACA implementation, a Chi square goodness of fit test was calculated with insured vs uninsured categories. Prior to ACA, 54.3% of community members were not insured; after ACA, the percentage of uninsured Asian community members dropped significantly to 29.7% in post ACA 1 and 23.7% in post ACA 2 (χ^2 (1) = 18.51, p < 0.001; χ^2 (1) = 22.11, p < 0.001) with the proportion of uninsured decreased by 24.6% from Pre-ACA to Post-ACA 1 period (2016) and 30.6% in Post-ACA 2 period (2017).

While the healthcare coverage among participants increased, utilization of preventive care services such as colorectal cancer screening and annual physical check-up did not change significantly. For example, the proportion of participants who reported never having a colonoscopy from pre-ACA to post ACAs were not statistically significant. The similar trend was also found on regular physical check-ups and having a primary care doctor. For mammogram, there was a significant difference in the percentage of participants who reported never having a mammogram from pre-ACA (48.5%) to post-ACA 1 (25.0%) (χ^2 (1) = 7.440, p = 0.02) and pre-ACA (48.5%) to post-ACA 2 (20.6%) (χ^2 (1) = 9.34, p < 0.05). Between post-ACA 1 and post-ACA 2, there were not statistically significant changes in the percentages of eligible participants who received a pap exam (Table 2).

Health Status: Chronic Disease Risk Factors

A similar trend can be found on chronic disease risk factors and health status when comparisons were made between pre-ACA and two post-ACA periods. The differences in percentages for levels of total cholesterol, HDL, glucose levels, BMI, and diastolic blood pressure were not statistically significant across the three comparisons. The proportion of participants with normal systolic blood pressure increased from pre-ACA to post-ACA periods and the differences are statistically different (Table 3).

Table 1 Demographic characteristics among participants

Characteristic	Pre-ACA (A)			Post-ACA 1 (B)			Post-ACA 2 (C)		
	N	Count	%	N	Count	%	N	Count	%
Gender	152			159			116		
Male		62	40.8		73	45.9		56	48.3
Female		90	59.2		86	54.1		69	51.7
Age	151			158			114		
Under 40 years		35	23.2		35	22.2		33	28.9
40–60 years		61	40.4		57	36.1		41	36.0
60 years and above		55	36.4		66	41.8		40	35.1
Marital status	150			159			111		
Married		105	70.0		110	69.2		88	79.3
Single		17	11.3		29	18.2		8	7.2
Other (divorced, widowed, separated)		28	18.7		17	10.7		15	13.5
Ethnicity	152			155			112		
Chinese		84	55.3		63	40.6		58	51.8
Korean		15	9.7		19	12.3		2	1.8
Japanese		10	6.6		36	23.2		13	11.6
Indian		38	25.0		24	15.5		37	33.0
Other		5	3.3		13	8.4			
Born in the US	151			159			116		
Yes		3	2.0		6	3.1		7	6.0
No		148	97.5		153	96.2		109	94.0
Years lived in the US	60			149			83		
Less than 1 year		9	15.0		13	8.7		8	9.6
1–3 years		9	15.0		35	23.5		15	18.1
4–6 years		13	21.7		40	26.8		11	13.3
7–9 years		3	5.0		11	7.4		12	14.5
10 or more years		26	43.3		50	33.6		37	44.6
English ability	110			89			112		
Fluent		58	52.7		36	40.4		64	57.1
Conversational		15	13.6		25	28.1		30	26.8
Basic words		17	15.5		11	12.4		12	10.7
Difficulties		20	18.2		17	19.1		6	5.4
Education	150			156			114		
Less than high school		9	6.0		12	7.7		11	9.6
High school/GED		18	12.0		16	10.3		6	5.3
Technical school		6	4.0		7	4.5			
Some college		13	8.7		5	3.2			
College		50	33.3		60	38.5		59	51.8
Graduate school/above		54	36.0		46	29.5		38	33.3
Employment	149			153			113		
Employed		71	47.7		72	47.1		60	53.1
Unemployed		36	24.2		41	26.8		35	31.0
Retired		42	28.2		40	26.1		18	15.9
Insurance type	68			103			92		
Private		46	67.6		86	83.5		79	85.7
Medicare		18	26.5		20	19.4		5	5.4
Medicaid		1	1.5		3	2.9		1	1.1
Other		3	4.4		9	8.7		7	7.6

Pre-ACA: 2012, Post-ACA 1: 2016, and Post-ACA 2: 2017

Table 2 Comparison of health care coverage and health service utilization in pre- and post-ACA periods

Practice	Pre-ACA (A)			Post-ACA 1 (B)			Post-ACA 2 (C)			A vs B	B vs C	A vs C
	N	Count	%	N	Count	%	N	Count	%	χ^2 (p)	χ^2 (p)	χ^2 (p)
Last colonoscopy	83			44			54			1.40 (0.50)	0.57 (0.75)	2.93 (0.23)
Within 2 years		9	10.8		7	15.9		7	13.0			
2–10 years ago		22	26.5		14	31.8		21	38.9			
Never		52	62.6		23	52.3		26	48.1			
Last mammogram	66			32			34			7.44 (<0.05)*	0.22 (0.90)	9.34 (<0.05)*
Within the past 2 years		21	31.8		10	31.3		12	35.3			
More than 2 years ago		13	19.7		14	43.8		15	44.1			
Never		32	48.5		8	25.0		7	20.6			
Last pap exam	+			39			48			n/a	0.25 (0.88)	n/a
Within 5 years		+	+		25	64.1		31	64.6			
Within 10 years					3	7.7		5	10.4			
Never					11	28.2		12	25.0			
Last physical exam	127			79			96			0.80 (0.37)	0.00 (0.98)	0.85 (0.36)
Regular check-up (less than 12 months)		74	58.3		41	51.9		50	52.1			
Non-regular check-up (more than 12 months or never)		53	41.7		38	48.1		46	47.9			
Have healthcare coverage	151			148			93			18.51 (<0.001)*	1.06 (0.30)	22.11 (<0.001)*
Yes		69	45.7		104	70.3		71	76.3			
No/do not know		82	54.3		44	29.7		22	23.7			
Have primary care doctor	151			150			92			0.00 (0.96)	0.00 (0.98)	0.00 (0.95)
Yes		65	43.0		65	43.3		40	43.5			
No/don't know		86	57.0		85	56.7		52	56.5			

Pre-ACA: 2012, Post-ACA 1: 2016, and Post-ACA 2: 2017

+ Data not available during this period

*Statistically significant

Table 3 Health indicators of participants in pre- and post-ACA periods

Characteristic	Pre-ACA (A)			Post-ACA 1 (B)			Post-ACA 2 (C)			A vs B	B vs C	A vs C
	N	Count	%	N	Count	%	N	Count	%	χ^2 (p)	χ^2 (p)	χ^2 (p)
Total cholesterol	118			124			106			0.63 (0.73)	1.44 (0.49)	2.27 (0.32)
Normal (<200)		68	57.6		68	54.8		64	60.4			
Pre (200–239)		41	34.7		43	34.7		29	27.4			
High (>240)		9	7.6		13	10.5		13	12.3			
HDL level	116			125			106			5.27 (0.07)	4.29 (0.12)	0.19 (0.91)
Low (<40)		24	20.7		23	18.4		24	22.6			
Normal (40–59)		59	50.9		49	39.2		51	48.1			
Protective (≥60)		33	28.4		53	42.4		31	29.2			
Glucose level (fasting)	113			122			101			0.80 (0.67)	1.06 (0.59)	2.90 (0.23)
Normal (<100 or 5.6)		66	58.4		78	63.9		70	69.3			
Pre (100–125 or 5.7–6.4)		41	36.3		39	32.0		26	25.7			
Diabetic (≥126 or 6.5)		6	5.4		5	4.1		5	5.0			
BMI	117			137			78			1.00 (0.61)	5.59 (0.06)	2.22 (0.33)
Under (<18.5)		4	3.4		7	5.1		1	1.3			
Normal (18.5–24.9)		74	63.2		91	66.4		44	56.4			
Over (>25)		39	33.3		39	28.5		33	42.3			
Systolic blood pressure	53			100			90			47.59 (<0.05)*	2.11 (0.35)	44.14 (<0.01)*
Normal (80–119)		2	3.8		40	40.0		43	47.8			
Pre-hypertension (120–139)		11	20.8		40	40.0		27	30.0			
Hypertension (≥140)		40	75.5		20	20.0		20	22.2			
Diastolic blood pressure	53			100			90			1.55 (0.46)	1.29 (0.52)	2.92 (0.23)
Normal (<79)		21	39.6		47	47.0		38	42.2			
Pre-hypertension (80–89)		15	28.3		30	30.0		34	37.8			
Hypertension (≥90)		17	32.1		23	23.0		18	20.0			

*Statistically significant

Pre-ACA: 2012, Post-ACA 1: 2016, and Post-ACA 2: 2017

Health Services Utilization, Healthcare Coverage and Types of Coverage

Having healthcare coverage statistically increased the odds of eligible residents ever receiving a colonoscopy (OR 2.84; 95% CI 1.46–5.53), mammogram (OR 4.01; 95% CI 1.57–10.21), having an up-to-date physical (OR 1.64; 95% CI 1.01–2.68), and having a primary care doctor (OR 10.31; 95% CI 6.05-–17.57) (see Table 4). Nevertheless, none of the odds ratios were statistically significant when comparing types of healthcare coverage (i.e., private vs public insurance) to colonoscopy (OR 1.83; 95% CI 0.70–4.79), mammogram (OR 3.39; 95% CI 0.38–29.99), physical exam (OR 0.47; 95% CI 0.22–1.02) or having a primary care provider

Table 4 Health services utilized by the uninsured compared to insured residents and private vs public insurance

	Colonoscopy				Mammogram				Annual physical exam				Have primary care doctor			
	Never	Ever	OR	95% CI	Never	Ever	OR	95% CI	NU/never	U	OR	95% CI	No/DK	Yes	OR	95% CI
Have insurance																
No/DK	40	25	2.84*	1.46	198	32	4.01*	1.57	54	48`	1.64	1.01	125	21	10.31*	6.05
Yes	31	55		5.53		54		10.21	74	108		2.68	86	149		17.57
Insurance type																
Private	21	28	1.83	0.70	71	33	3.39	0.38	68	57	0.47	0.22	97	65	0.55	0.27
Public	9	22		4.79	16			29.99	28	11		1.02	35	13		1.13

OR odds ratio, *CI* confidence intervals, *U* up-to-date (1 year or less), *NU* not up-to-date, *DK* don't know

*Statistically significant: p < 0.05

(PCP) (OE 0.55; 95% CI 0.27–1.13) data. There are no statistically significant differences between the health services utilized by Asians with private insurance vs public health insurance (see Table 4).

Predictors for Health Services Utilization

A multivariate regression analysis was performed to predict the utilization of clients on preventive and screening tests amongst colonoscopy, mammogram, and physical exam (Table 5). The variables included in the multivariate models were the correlates that have been used in the past to predict healthcare utilization amongst individuals which were gender, having a primary care physician (PCP), English fluency, education, and years lived in the United States [15]. The results of the regression analysis indicated that the model accounted for 17.0% of the variation in the percentage of available tests participants received ($R^2 = 0.170$, $F(5, 171) = 7.02$, $p < 0.01$). Having a PCP ($\beta = 0.30$, $p < 0.01$) and gender ($\beta = -0.26$, $p < 0.01$) were associated with the percentage of available tests the participants received whereas having PCP and being a female were predictors to greater health services utilization adjusting other variables in the model. Durbin-Watson statistic (1.810) revealed that the data was not autocorrelated.

Discussion

Despite the increase in access to health insurance through the implementation of the ACA, Asian Americans in Michigan are still facing significant health disparities. This study provides information on the effects of ACA on health service utilization and chronic disease burdens among Asian Americans and bridges the gap in the literature amongst this minority group in the United States.

Reviewing the data from health surveys as well as biometric measurements, it is clear that despite significant increases in the percentage of individuals getting healthcare coverage between pre- and post-ACA periods, utilization in preventative services (i.e., colonoscopy and physical exams) did not significantly change. Additionally, no statistical differences were seen in cardiovascular and diabetes risk factors among study participants whereas hyperlipidemia, abnormal glucose levels, and hypertension (with the exception of systolic blood pressure) remain relatively unchanged since the implementation of the law. More than half of the Asian Americans in the current study were eligible but never got a colonoscopy before the ACA implementation and similar proportions were observed in post-ACA implementation periods (52.3% in 2016 and 48.1% in 2017). For mammography screening, while Asian American women who met the age requirements reported never having a mammogram decreased from Pre-ACA period (48.5%) to post-ACA periods (25.0% and 20.6% respectively), those who reported having a mammogram took the test with longer intervals (more than 2 years) increased from 19.7% to 43.8% and 44.1%. Under the ACA, private health plans are required to cover preventive health services recommended by the US Preventive Services Task Force at no cost to the patient; therefore, the under-utilization of these preventive services observed in current study can signal that some newly insured Asian Americans may not know the full array of health services available to them or being educated on the effectiveness of cancer screening and other forms of preventive care services. Addressing these knowledge gaps with effective strategies is important to reduce disparities in preventive health services utilization; bilingual community health workers can play a critical role toward achieving the goal to ensure clients receiving age-appropriate preventive health services by providing language-appropriate and culturally-sensitive education about the importance and availability of preventive services [16, 17].

The percentages of Asian Americans who had received an annual physical remains relatively unchanged in all study periods (58.3%, 51.9% and 52.1% respectively). Prior research has found that the use of annual physical rose from about 7% (3.2 million visits) in 2011 to 20% (10.4 million visits) in 2016 [18] and also documented the evidence that annual physicals are modestly effective in increasing access to preventive care such as US Preventive Services Task Force (USPSTF) recommended preventive services [19].

Table 5 Multivariate regression of predictors of percentage of available tests participants received colorectal, breast cancer screening, and annual physical exams (gender and age appropriate)

Variables	Unstandardized coefficient B	Standardized coefficient β	Significance *p* value	95% CI lower bound	95% CI upper bound
Gender	− 21.34	− 0.26	< 0.0001	− 33.09	− 9.58
PCP	25.15	0.30	< 0.0001	12.22	38.07
Fluency	5.04	0.06	0.49	− 9.36	19.43
Education	3.60	0.07	0.81	− 5.22	12.41
Years lived in the US	− 3.47	− 0.04	0.61	− 16.74	9.80

PCP primary care providers

Our study indicates that uninsured Asian Americans have higher odds in not receiving colonoscopy, mammogram, up to date annual physical exam, or not having a PCP. One of potential implications to reduce disparities in preventive services such as cancer screenings may involve increasing awareness of and the willingness to schedule for annual visits through community education sessions or community health workers.

In terms of chronic diseases, the proportion of Asian Americans in current study who had abnormal total cholesterol, fasting glucose in the diabetic range and BMI remained relatively unchanged across collection periods (see Table 3). The only exception was systolic blood pressures whereas decreases on the rates of hypertensive systolic blood pressure were observed in post ACA periods. This is a positive sign; nevertheless, overall findings from current study lie in contrast to existing literature which has found increased utilization in preventative services and decreased chronic disease burden in other groups such as low-income individuals [3, 4, 20, 21] while most of these studies did not disaggregate Asian Americans in the results or data on Asian Americans were limited.

The results from multivariate regression analysis indicated that having access to a primary care physician and gender were significant predictors in determining utilization of available preventive care services. Specifically, participants who have a PCP compared to those who don't showed a 25% increase in the percentage of available tests they received. This finding is in line with established research amongst other demographic populations which show that having a PCP can increase healthcare utilization [3, 4]. Additionally, our results indicate that males experienced a 21% decrease in the percentage of available tests they received compared to females. The study results are in line with established research which indicates that men tend to underutilize cancer prevention services and physical exams amongst other studied populations [22, 23].

Limitations and Future Directions

The current study has strengths and limitations that need to be noted. The study was limited to a convenience sample of Asian Americans in Michigan who were attending community health fairs and small sample size. Therefore, prevalence rates may not be generalizable outside of this study. The analyses from current study expands the literature on documenting the implementation of ACA and its impact on healthcare access and use of preventive health services among Asian Americans in Michigan. In addition, the study measurement was adapted from state-level Michigan Behavioral Risk Factor Survey (MBRFS) whereas data on Asian Americans were lacking on annual MBRFS reports. This study addresses a gap in the literature relative to understanding the healthcare coverage and its relationships to preventive health services and health status in this under-studied population.

Future research is needed to include larger sample of Asian Americans in different geographic locations to gain a broader perspective on how Asian American population in various regions might perform in terms of healthcare coverage and use of preventive care services. The insights from current study yield information for developing interventions to effectively increase adherence of preventive health services and improve health status among Asian Americans on the issues of insurance coverage and use of preventive health services.

Conclusion

Increasing health insurance coverage for Asian Americans is the first step to address health equity in underserved populations. Results from current study suggest that although healthcare coverage increased with ACA implementation, health disparities still exist in utilization of preventive health services and chronic disease risk factors among Asian Americans. Future strategies and policies should consider culturally- and socially-tailored intervention and campaign to address special health needs of Asian Americans and improve their health status and well-being.

Compliance with Ethical Standards

Conflict of interest The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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