Affordable Care Act: It's Effect on Health Care Utilization and the Health of Minnesotans

MPA Professional Paper

Masters of Public Affairs

The Hubert H. Humphrey School of Public Affairs

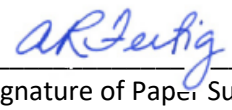
The University of Minnesota

Tamara Uhde

August 15, 2020

*Signature below of Paper Supervisor certifies successful completion of oral presentation **and** completion of final written version:*

Angela R. Fertig	8/14/2020	8/15/2020
Typed Name & Title, Paper Supervisor	Date, oral presentation	Date, paper completion



Signature of Paper Supervisor, certifying successful completion of professional paper

Henriet Hendriks	8/18/2020
Typed Name & Title, Second Committee Member	Date

Signature of Second Committee Member, certifying successful completion of professional paper

INTRODUCTION

In the United States, there are several different types of health care, including the Veteran's Health care system, Medicare/Medicaid systems and private health care systems. The introduction of the Affordable Care Act sparked an additional type of health care option and further empowerment of citizens to engage in their health outside of their employment status. My interest in this area was started from previous employment and interactions within these systems and the complex nature of how they affect health care outcomes; both positively and negatively. This paper focuses on a small portion of this complicated subject and how it interacts with individuals and their health.

There is a large body of evidence showing that access to medical care improves health outcomes. Patients who see the doctor regularly are more likely to receive consistent preventative care, have conditions like cancer and diabetes detected early, and have a higher quality of life (Christopher, 2015). Coverage of preventative care services aims to reduce the amount of undiagnosed or untreated conditions. This is expected to reduce costs through less invasive or complex treatment options (Dixon, 2014).

On March 23rd, 2010, the Affordable Care Act (ACA) was enacted into law. The implementation of the ACA encourages access to preventative care which could reduce the overall usage and cost of emergency care services (Lee, 2013). The ACA now provides expanded access to insurance coverage for preventative and treatment strategies to previously uninsured. By

removing the barrier of shared costs for preventative care, it is expected that an increase in utilization of preventative care services will reduce the cost of chronic diseases (Dixon, 2014).

This study analyzes whether health care access improved for Minnesotans after the ACA, relative to before. The ACA expanded health insurance coverage in three main ways. These included expanding Medicaid eligibility, creating a health care marketplace, and increasing the transition age of young adults. By 2016, 32 states expanded Medicaid to cover individuals with incomes below 138 percent of the federal poverty level. In the second half of 2014, adults in expansion states experienced increased health insurance (from 3.4 to 11.3 percentage points) and Medicaid coverage (2.7 to 11.5 percentage points) in comparison to non-expansion states (Devoe, 2016). Health insurance marketplaces were established in each state to increase access to Medicaid or affordable and government subsidized health insurance plans outside of their employer (Robert Wood Johnson Foundation, 2016)]. Finally, the ACA mandated that young adults under the age of 27 could obtain coverage through their parents' health insurance plan (Sommers, 2013). Nearly 3 million previously uninsured young Americans have gained coverage under the parents' policies (Blumenthal, 2015). In total, more than 30 million Americans now have insurance under these new sources of coverage and consumer protections (Blumenthal, 2015).

The ACA also expanded access to health care. The ACA significantly improved access to primary care and medications, and cost-related barriers have decreased (Sommers, 2015). Some studies have already detected positive trends in self-reported health and functional status among individuals with chronic medical conditions after the ACA (Sommers 2015). One study found

that those with Medicaid had an 8.4 times greater odds of seeing a physician compared to their counterparts who did not have Medicaid (Christopher 2015).

Historically, African-Americans, Latinos, Native Americans have had less access to medical care than non-Hispanic whites (Summers, 2015). However, early evidence suggests that these groups have seen the greatest increase in access since the introduction of the ACA (Sommers, 2015). Minnesota has some of the largest racial disparities in employment, household income, and homeownership rates (MN Employment and Economic Development, 2016). Thus, this study will also compare the pre/post-ACA changes in health care access across racial/ethnic groups to assess whether racial disparities declined after the implementation of the ACA.

This study will specifically compare health insurance coverage rates, seeing a medical provider within the previous 12 months, having a personal medical provider, having more than 15 poor physical health days in a month, and having more than 15 poor mental health days in a month from 2012 and 2016 in a sample of Minnesotans by race/ethnicity. I hypothesize that access to health care and measures of preventative care would increase, while physical and mental health symptoms would decrease in 2016 compared to 2012, especially for non-Hispanic Black, Hispanic/Latinos and multiple/other races.

DATA AND METHODS

Data and Sample

Data was extracted from the Behavioral Risk Factor Surveillance System (BRFSS) from both 2012 and 2016. This cross-sectional survey collects information about individual health risks, chronic care needs and use of preventative care. The BRFSS is administered in all 50 states; the sample

analyzed for this report was based on Minnesota residents, ages 18-80. The sample size totaled 10,158 individuals in 2012 and 13,592 individuals in 2016. When both years of data are pooled, there are 21,334 non-Hispanic whites, 731 non-Hispanic blacks, 742 Hispanics, and 943 individuals from some other race/ethnicity (or who identify as multi-racial).

Table 1 provides the socio-demographic characteristics of the samples. While there are some differences across time, they likely reflect changing demographics of the state over time. Over 50% of the sample is female, over age 50 and married. Almost 90% of the sample is non-Hispanic white. The percentage of African-Americans in the sample declined from 3.6% to 2.7% from 2012 to 2016, but the percentage of Latinos rose from 2.5% to 3.6% over this period. Over 40% of the sample has a college degree, and over 75% owned their home. The employment rate increased from 53.0% in 2012 to 61.6% in 2016. The percentage of households with incomes below $35,000 declined from 33.3% in 2012 to 28.6% in 2016, while the percentage of households with incomes above $75,000 increased from 32.9% to 38.4%.

Table 1: Socio-demographic characteristics of sample

	2012 Average	**2016 Average**	**T-Test Results**
Female	55.8%	51.5%	.0000
Age 18-34	17.0%	18.4%	.0031
Age 35-49	24.1%	21.4%	.0000
Age 50-64	33.3%	32.4%	.1641
Age 65-79	19.9%	22.1%	.0000
Age 80 or older	5.8%	5.6%	.6639
Married	55.5%	58.3%	.0000
Non-Hispanic White	90.2%	89.6%	.1322
Non-Hispanic Black	3.6%	2.7%	.0000
Hispanic/Latino	2.5%	3.6%	.0000
Other race/ethnicity/multi-racial	3.7%	4.1%	.1089

Completed <High School	4.0%	3.8%	.4427
High School Graduate	23.9%	22.9%	.0494
Completed some College	29.9%	30.8%	.1375
College Graduate	42.1%	42.5%	.5435
Currently Employed	53.0%	61.6%	.0000
Own home	77.3%	77.1%	.7941
Income < $35,000	33.3%	28.6%	.0000
Income $35k - $75k	33.7%	33.0%	.2136
Income $75k+	32.9%	38.4%	.0000

Measures

This study focuses on three questions about health care access and two questions about health status. Health care access was measured by whether the individual had a health insurance plan at the time of the survey, whether they had a preventative care visit with a medical provider in the last year, and whether they had a personal doctor. The health status of Minnesotans was assessed by whether the person felt physically poor more than 15 days in the last 30, and whether the person felt mentally poor more than 15 days of bad mental health in the last 30 days.

Statistical Analyses

I examine whether measures of health care access and health improved for Minnesotans between 2012 and 2016. T-tests comparing the unadjusted means of two independent samples were used, one from 2012 and one from 2016. Ordinary least squares (OLS) regression models were ran on the combined samples against the five outcomes to test whether there were significant differences in 2016 compared to 2012, adjusting for gender, age, race/ethnicity, education, home ownership, and household income.

RESULTS

Data revealed in Figure 1 shows that health insurance coverage in MN significantly increased from 2012 to 2016, from 91.5% to 95.4%. This increase was significant for Non-Hispanic White, Hispanic, and other race/ethnicity/multiracial individuals, but not for Non-Hispanic Black Minnesotans. One of the goals of the ACA is to increase preventative care through health insurance coverage. Consistent with this, Figures 2 and 3 reveal that the rates of seeing a medical provider in the last year and having a personal medical provider also increased from 2012 to 2016. However, these increases were only statistically significant for Non-Hispanic White Minnesotans.

The gap between policy coverage and care among Non-white Minnesotans may be due to barriers to accessing care, including awareness of preventive care needs, transportation/child care, and finding a medical provider accepting new patients. Individuals and families may be faced with one or all of these barriers.

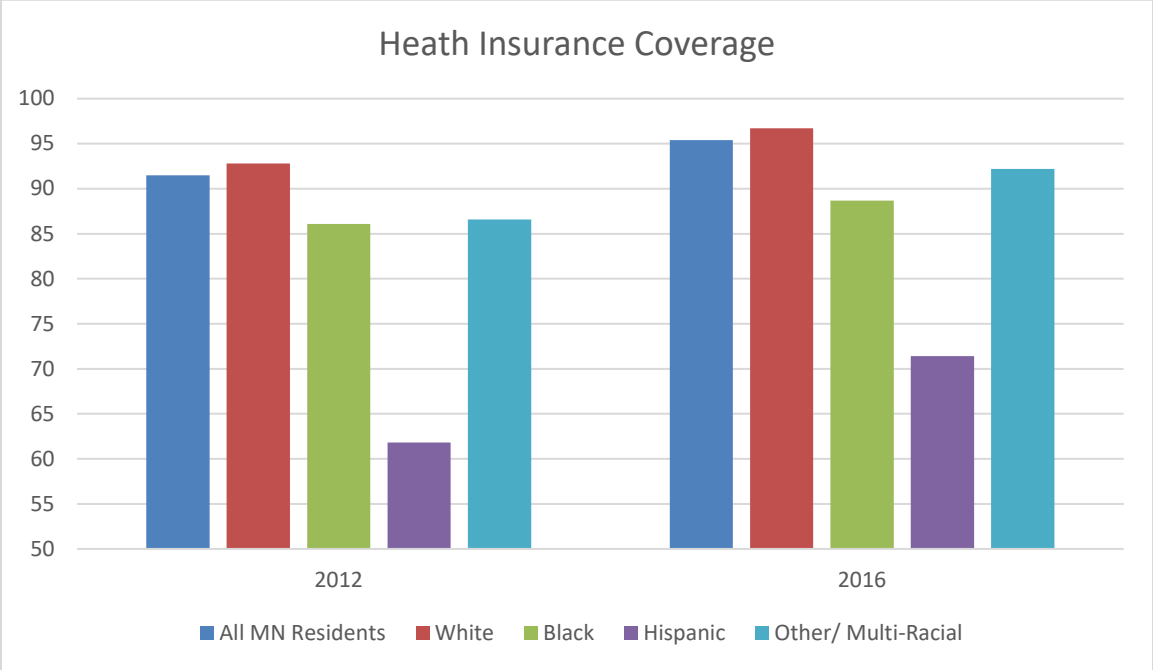
In the poor physical health category, individuals identifying as Non-Hispanic Black reported a marginally significant decrease of poor physical health days each month ($p=0.075$), while there was no significant change in any other group, including the totality of all MN residents.

In the poor mental health category, there was no significant differences shown within any group on poor mental health days. Barriers to access mental health services may play an important role in these findings.

Table 1 shows the differences in the outcomes after ACA vs before, adjusted for demographic and socioeconomic characteristics using regression analyses on the full sample. Similar to Figures 1-3, the adjusted results indicate that insurance coverage rates increased by 3.6 percentage points from 2012 to 2016 ($p<0.01$), seeing a medical provider in the last year increased by 2.4 percentage points ($p<0.01$), and having a personal provider increased by 6.3 percentage points ($p<0.01$).

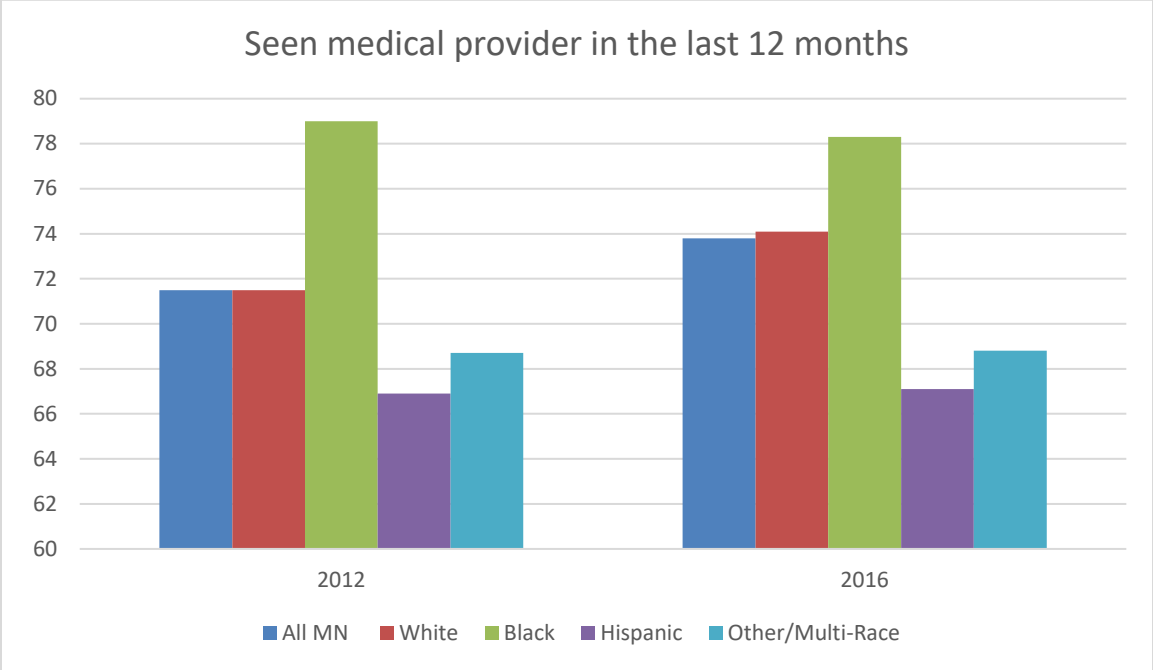
In contrast to Figures 4-5 which indicate no changes in the average percent of Minnesotans experiencing 15+ poor health days or 15+ bad mental health days, the adjusted results suggest that the percentage of Minnesotans that reported 15+ poor health days increased by 15.1 percentage points from 2012 to 2016 ($p<0.01$), and the percentage that reported 15+ bad mental health days increased by 0.9 percentage points ($p<0.01$).

Figure 1: Health Insurance coverage of sample by race/ethnicity



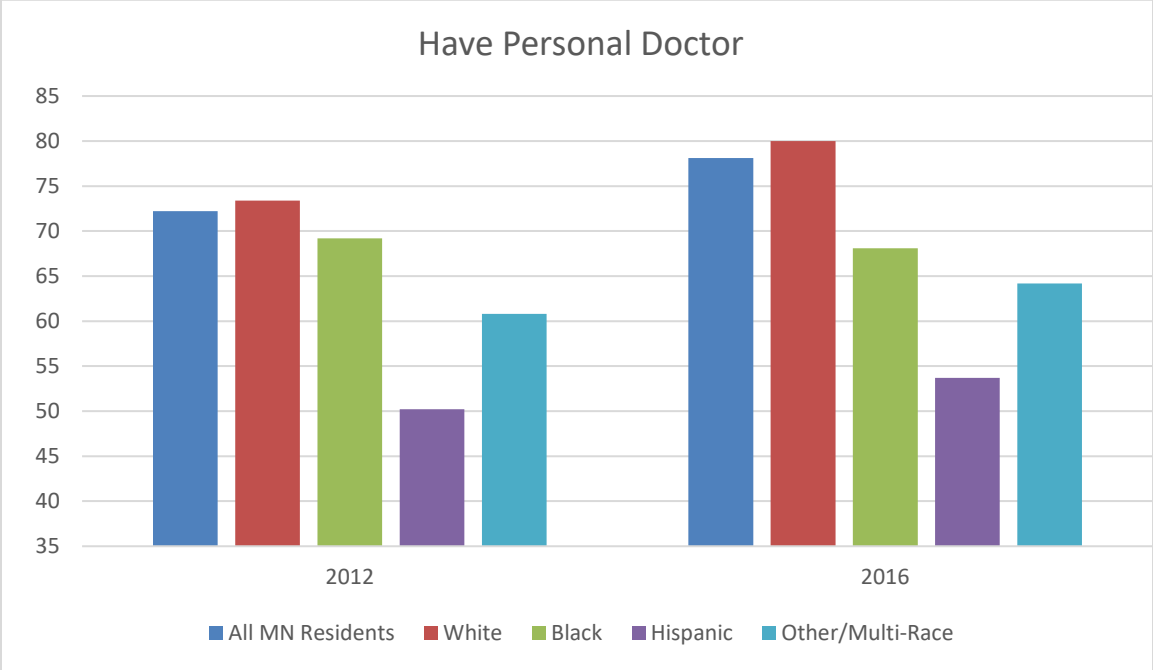
	2012 AVERAGE	2016 AVERAGE	T-TEST RESULTS (p-value)
All MN Residents	91.5%	95.4%	.0000
White	92.8%	96.7%	.0000
Black	86.1%	88.7%	.2837
Hispanic	61.8%	71.4%	.0090
Other/Multi-racial	86.6%	92.2%	.0070

Figure 2: Seen medical provider in the last 12 months



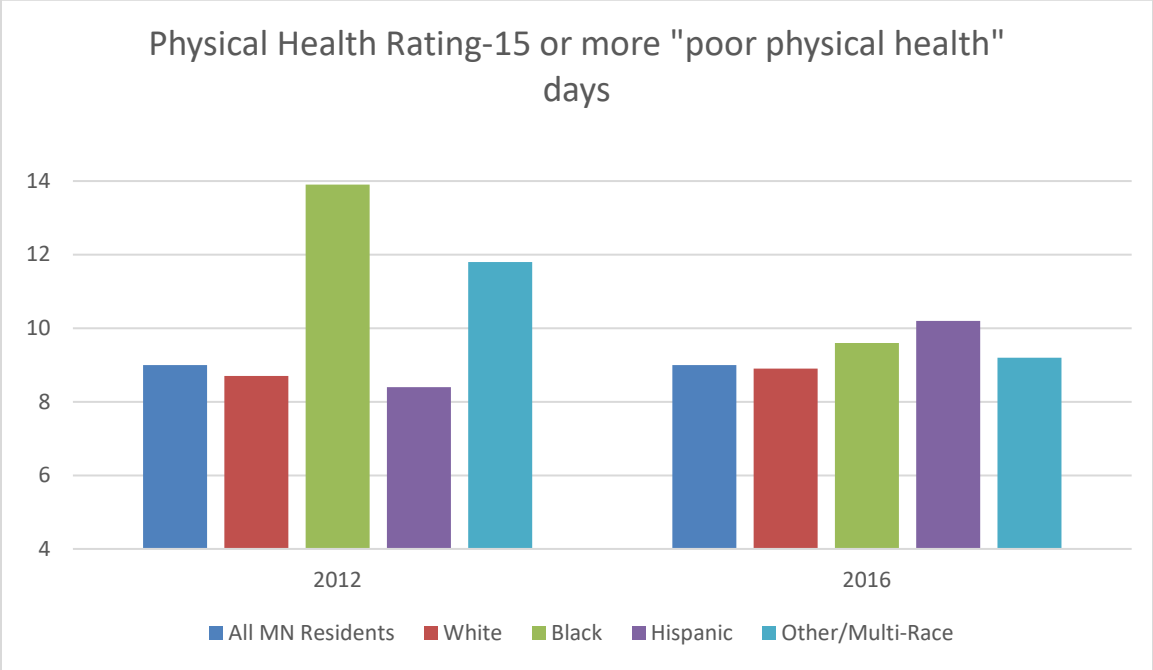
	2012 AVERAGE	2016 AVERAGE	T-TEST RESULTS (p-value)
All MN Residents	71.5%	73.8%	.0001
White	71.5%	74.1%	.0000
Black	79.0%	78.3%	.8119
Hispanic	66.9%	67.1%	.9541
Other/Multi-Race	68.7%	68.8%	.9572

Figure 3: Have Personal doctor by race/ethnicity



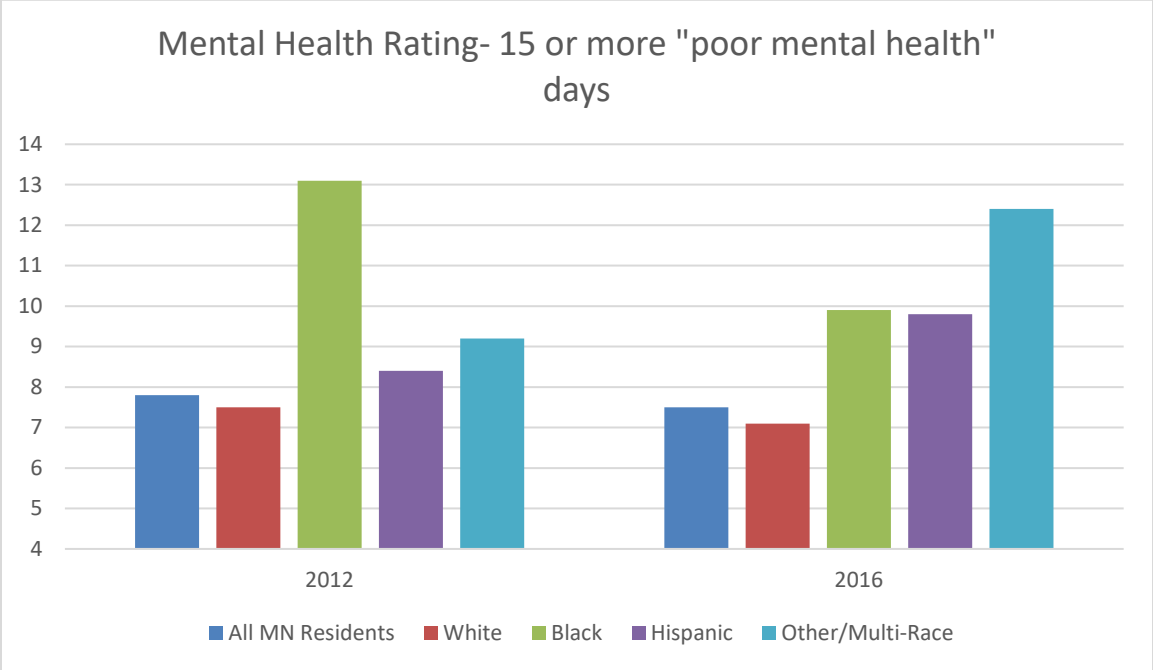
	2012 AVERAGE	2016 AVERAGE	T-TEST RESULTS (p-value)
All MN Residents	72.2%	78.1%	.0000
White	73.4%	80.0%	.0000
Black	69.2%	68.1%	.7538
Hispanic	50.2%	53.7%	.3715
Other/Multi-Racial	60.8%	64.2%	.2830

Figure 4: Physical health rating



	2012 AVERAGE	2016 AVERAGE	T-TEST RESULTS (p-value)
All MN Residents	9.0%	9.0%	.9878
White	8.7%	8.9%	.5995
Black	13.9%	9.6%	.0746
Hispanic	8.4%	10.2%	.4088
Other/Multi-Race	11.8%	9.2%	.2002

Figure 5: Mental health rating



	2012 AVERAGE	2016 AVERAGE	T-TEST RESULTS (p-value)
All MN Residents	7.8%	7.5%	.4718
White	7.5%	7.1%	.3318
Black	13.1%	9.9%	.1767
Hispanic	8.4%	9.8%	.5176
Other/Multi-Race	9.2%	12.4%	.1182

Table 2: Regression Results

Dependent variable:	Has Insurance Now	Has Seen Provider in last 12 months	Has Personal Provider	15+ bad physical health days in last 12 months	15+ bad mental health days in last 12 months
2016 (ref: 2012)	0.0359***	.0243***	.0631***	0.1509***	0.0094***
	(0.0030)	(0.0057)	(0.0054)	(0.0048)	(0.0034)
Note: Each column represents a separate OLS regression. Coefficients reported and standard errors reported in parentheses. * indicates significance at p<0.10; ** p<0.05; ***p<0.01. All models adjusted for gender, age, marital status, education, employment status, home ownership status, annual household income and race of household head.					

DISCUSSION

The results show that health insurance coverage increased for all race/ethnic groups except black Minnesotans from 2012 to 2016. Self-reported health care utilization increased from 2012 to 2016 in Minnesota, but only for non-Hispanic whites. Finally, measures of self-reported health and mental health were worse in 2016 than in 2012.

These results suggest that the ACA led to some improvements in Minnesota, but they may not have been felt by all race/ethnicities. There are several reasons that this pattern may have occurred. First, the ACA rollout in MN encountered challenges, including difficulties with the healthcare exchange marketplace, called MNSure. The online marketplace was the main source of comparing and purchasing health insurance plans. There were technical and logistical difficulties that caused delays for many months in obtaining health care and getting further information to Minnesotans (Meitrodt, 2017). This decreased trust within the system and further politicized the ACA. While MNsure has rebounded and continues to enroll Minnesotans every year, the initial issues created concerns that may still echo today.

Second, while the expansion of health care insurance coverage for Non-White Minnesotans was achieved, it is only one of the necessary steps that will lead to additional preventative care and ultimately a decrease in maladaptive physical and mental health symptoms in these populations. Barriers to health care may include cost, lack of providers, lack of transportation, lack of health literacy, and lack of trust. Approximately, 80 million Americans have limited health literacy, putting them at risk for poorer access to care and poorer health outcomes (Berkman, 2011). Similarly, Black Americans are less likely than White Americans to ask their physician questions freely. They are more likely to report believing that their physician will

expose them to unnecessary risk, and prescribe them experimental medications (Whetten, 2006). Many individuals, especially those that identify as Black or Native American, may have perceptions or experiences that have led to a lack of trust within the system. In addition, alternative methods of medicine may hold true to their culture and how they approach illness. In addition, it may be that medical care, especially mental health services, may not be readily available. In particular, a significant difference in access is reported between urban and rural settings. Rural residents were found to have poorer health, with rural areas having difficulty attracting and retaining physicians, and maintaining health services on a par with their urban counterparts (Douhit, 2015). Health care coverage in a rural setting may not equal health care access, resulting in lower outcomes across both physical and mental health.

Policy recommendations based on the results of this paper include increasing the awareness of policy makers that health care coverage does not automatically lead to health care utilization. There was a significant increase in health care coverage from 2012 to 2016, however that did not lead to an increase in health care utilization for those that identify as African American, Hispanic or other races. Research has identified barriers such as cost, lack of providers, lack of transportation, lack of health literacy, and lack of trust. Future policy needs to be reflective of the entire health care experience of the consumer, from health care coverage to utilization.

Limitations of the study

While adjustments were made for socioeconomic and demographic characteristics of individuals in this analysis, some important confounding factors may still be missing.

Specifically, measures of the economic conditions of the state could have influenced outcomes. Additionally, political factors (e.g., 2016 was a presidential election year) may influence how people rate their subjective well-being and mental health. It should also be noted that the sample size of Non-Hispanic Blacks, Hispanics and Other Races were small in both 2012 and 2016 when compared to the size of Non-Hispanic White, which reduces the study's power to detect statistically significant differences. Finally, weighting the data to account for BRFSS sampling design was beyond the scope of this paper, however should be noted as a limitation.

CONCLUSION

The goal of this study was to examine the ACA, and whether its implementation increased access to preventative care and thus a decrease in poor physical and mental health days. Overall, there was an increase in health insurance coverage rates, however this did not translate into significantly decreased poor physical and mental health days.

There was an assumption that health insurance coverage leads to more preventative care and thus decreased poor physical and mental health days. While this was found to be true among Non-Hispanic White residents, it was not found among Non-White Minnesotans. Non-white Minnesotans may lack access to care, having enough providers within a reasonable amount of time to provide care and overall acceptance of need for care. The results of the study may show that obtaining health insurance coverage is the first piece of this complex culture. The current complexity of our health care system and the overall culture of health care has many additional barriers and changes to be made to ensure easier access along with increasing the health literacy within our state.

In addition, the political banter surrounding the ACA may have also decreased the population's understanding of the ACA. The ACA, itself, has also been undergoing significant change since its implementation, which may add to the confusion and rights of the consumer.

Overall, further information and related change is needed in these areas for increasing preventative care and thus creating a more accessible and healthier MN.

References

Access to Health Care and Community Social Capital. (2002). *Health Services Research, 37*(1), 85-101. doi:10.1111/1475-6773.00111

Aday, L., Andersen, R. (1974). A Framework for the Study of Access to Medical Care. *Center for Health Administration Studies.*

Berkman, N. (2011). Low Health Literacy and Health Outcomes: An Updated Systematic Review. *Annals of Internal Medicine.* 155(2), 97-107

Callahan, S. T. (2005). Uninsurance and Health Care Access Among Young Adults in the United States. *Pediatrics, 116*(1), 88-95. doi:10.1542/peds.2004-1449

Christopher, A. S., Mccormick, D., Woolhandler, S., Himmelstein, D. U., Bor, D. H., & Wilper, A. P. (2016). Access to Care and Chronic Disease Outcomes Among Medicaid-Insured Persons Versus the Uninsured. *American Journal of Public Health, 106*(1), 63-69. doi:10.2105/ajph.2015.302925

Cohen, J., Neumann, P., & Weinstein, M. (2008) Does Preventative Care Save Money? Health Economics and the Presidential Candidates. *The New England Journal of Medicine,* 358: 661-663.

DeVoe, J., Baez, A., Angier, H., Krois, L., Edlund, C., & Carney, P. (2007). Insurance + Access does not equal Health Care: Typology of Barriers to Health Care Access for Low-Income Families. *Annals of Family Medicine,* 5(6).

Douhit, N. (2015). Exposing some important barriers to health care access in the rural USA. *Public Health,* 129(6), 611-620.

Fleurbaey, M., & Schokkaert, E. (2009). Unfair inequalities in health and health care. *Journal of Health Economics, 28*(1), 73-90. doi:10.1016/j.jhealeco.2008.07.016

García-Gómez, P., Hernández-Quevedo, C., Jiménez-Rubio, D., & Oliva-Moreno, J. (2015). Inequity in long-term care use and unmet need: Two sides of the same coin. *Journal of Health Economics, 39*, 147-158. doi:10.1016/j.jhealeco.2014.11.004

Gulliford, M., Figueroa-Munoz, J., Morgan, M., Hughes, D., Gibson, B., Beech, R., & Hudson, M. (2002). What does 'access to health care' mean? *Department of Public Health Sciences,* 7(3).

Kim, E., Strecher, V., & Ryff, C. (2014). Purpose in life and use of preventive health care services. *PNAS,* 111(46), 16331-16336.

Lee, M., Schuur, J., & Zink, B. (2013). Owning the cost of Emergency Medicine: Beyond 2%. *Annals of Emergency Medicine,* 62(5).

Levesque, J., Harris, M., & Russell, G. (2013). Patient-centered access to health care: conceptualizing access at the interface of health systems and populations. *International Journal for Equity in Health,* 12 (18).

Meitrodt, J. (2015) MNSure defects were no surprise. Star Tribune. February 17, 2015. Retreived from https://www.startribune.com/april-6-mnsure-defects-were-no-surprise/254058601/ on August 17, 2020.

Minnesota Employment and Economic Development (2016). *Twin Cities Metro Regional Disparities by Race and Origin.*

Oliver, A. (2004). Equity of access to health care: outlining the foundations for action. *Journal of Epidemiology & Community Health, 58*(8), 655-658. doi:10.1136/jech.2003.017731

Sommers, B. D., Gunja, M. Z., Finegold, K., & Musco, T. (2015). Changes in Self-reported Insurance Coverage, Access to Care, and Health Under the Affordable Care Act. *Jama,* 314(4), 366. doi:10.1001/jama.2015.8421

Vissandjée, B., Weinfeld, M., Dupéré, S., & Abdool, S. (2001). Sex, gender, ethnicity, and access to health care services: Research and policy challenges for immigrant women in Canada. *Journal of International Migration and Integration / Revue de lintegration et de la migration internationale, 2*(1), 55-75. doi:10.1007/s12134-001-1019-7

Whetten, K. (2006). Exploring Lack of Trust in Care Providers and the Government as a Barrier to Health Services Use. *American Journal of Public Health.* 96(4), 716-721.