

Health Outcomes and Access to Care According to Type of Insurance Coverage: Implications for the Affordable Care Act

-Handout-

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Introduction

- No prior study has examined health characteristics (e.g., self-reported health status, chronic diseases or risk behaviors) of those who are covered privately, publically, and those who are uninsured and likely to qualify for coverage under the ACA enactment.



- Considering the recognized relationship between health insurance and health outcomes along with the increased newly insured populations, it is essential to examine the differences in general health status and health service use between these groups.

Purpose

- The purpose of this study is to assess health disparities and inequalities in regards to the insurance status: private, public, the uninsured but likely eligible for Medicaid expansion (EME), and the uninsured but likely required to purchase health plans through the health exchange market (RPIE).



Hypotheses

- **Primary:** The uninsured population would have poorer health outcomes and access to care than the insured, and that these relationships would hold firm regardless of the type of insurance.
- **Secondary:**
 - 1) Different types of insurance would be associated with differences in overall level of health and health inequalities
 - 2) Disparities and inequalities in health would be smaller within the insured (private vs. public) than between the insured and the uninsured (private vs. RPIE and public vs. EME).

- **Data from the Household Survey Component (HC) of the Medical Expenditure Panel Survey (MEPS) 2012**

- **Sample:** adults aged 27 to 64 years



- ✓ Those 65 years and older were excluded to avoid confounding with individuals using Medicare (near-universal coverage; Franks, Clancy, Gold, & Nutting, 1993; Shi, 2000).
- ✓ Those younger than 27 were also excluded to avoid possible effects of changing insurance status (47% of US young adults ages 19-25 stayed or joined their parent's health plan in 2011 [Collins, Robertson, Garber, & Doty, 2012]).

Statistical Analyses

- A series of bivariate analyses were used to examine insurance type differences in socio-demographic and health characteristics.
- In order to achieve a joint significance level of $\alpha < 0.05$ for multiple comparisons, Bonferroni adjustments were made.
- Multiple logistic regression models were used to assess the independent effects of type of health insurance with primary health indicators. All regression models were controlled for selected socio-demographics and the frequency of visits to health service.



Results

Demographic characteristics-1

Characteristics	Insured		Uninsured	
	Private n= 9,428	Public n= 2,371	RPIE n=2,172	EME n=2,894
Age (years)	(M) 45.59 ± 0.109	(M) 45.37 ± 0.229	(M) 43.69 ± 0.199	(M) 41.41 ± 0.216
27-45	48.8%	48.8%	54.5%	66.0%
46-64	51.2%	51.2%	45.5%	34.0%
Sex				
Male	47.3%	35.1%	54.1%	44.8%
Female	52.7%	64.9%	45.9%	55.2%
Race/Ethnicity				
Hispanic	19.2%	31.3%	43.0%	54.2%
White / Non-Hispanic	51.4%	29.6%	30.4%	18.6%
Black / Non-Hispanic	17.6%	31.4%	17.3%	22.7%
Asian	9.7%	5.1%	7.4%	3.7%
Others	2.1%	2.6%	1.9%	0.8%

Results

Demographic characteristics-2

Characteristics	Insured		Uninsured	
	Private n= 9,428	Public n= 2,371	RPIE n=2,172	EME n=2,894
Education, College or Higher (more than 12 years)	67.0%	29.1%	40.5%	26.5%
Married	68.4%	33.9%	53.6%	42.2%
Not married	31.6%	66.1%	46.4%	57.8%
Employed	85.1%	28.6%	73.5%	52.0%
Unemployed	14.9%	71.4%	26.5%	48.0%
Family Income				
Low income (< 200% FPL)	17.5%	82.0%	33.8%	100%
Middle income (≥ 200 to < 400% FPL)	34.5%	14.2%	47.9%	.
High income (≥ 400% FPL)	48.0%	3.8%	18.3%	.

Results

Demographic characteristics-3

Characteristics	Insured		Uninsured	
	Private n= 9,428	Public n= 2,371	RPIE n=2,172	EME n=2,894
Family Size				
< 3	41.1%	42.6%	38.7%	31.4%
3 to 4	42.4%	36.0%	37.8%	33.9%
5 to 7	15.8%	19.4%	21.2%	30.7%
> 7	0.7%	2.0%	2.3%	4.0%
Region				
Northeast	16%	26.7%	12.6%	10.9%
Midwest	21.2%	17.0%	14.3%	12.4%
South	35.6%	31.2%	42.0%	49.8%
West	27.3%	25.2%	31.1%	26.9%

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, based on χ^2 analysis; Data from Medical Expenditure Panel Survey (MEPS) 2012; Numbers are unweighted and percentages do not always equal 100 due to rounding or missing data;

RPIE= the Uninsured Who Will Likely Be Required to Purchase Health Insurance through the Exchanges under the ACA Enactment; EME= the Uninsured Who Will Likely Be Eligible for Medicaid Expansion; FPL= Federal Poverty Level in 2012

^a Tests for differences between insurance groups based on the analysis of variance (ANOVA).

Results

Figure 1. General Health Status

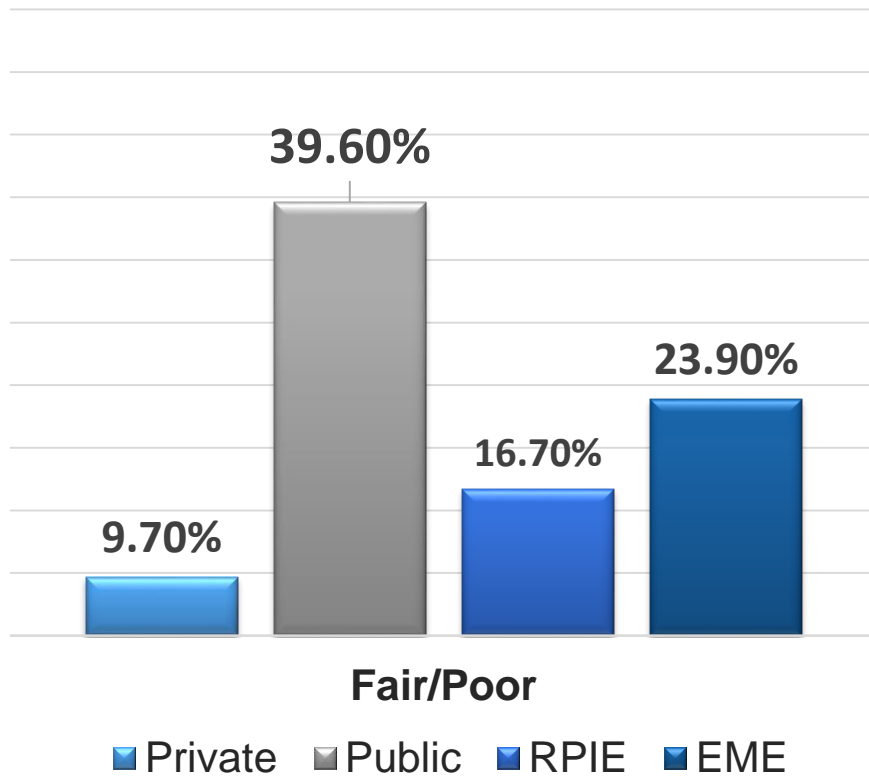
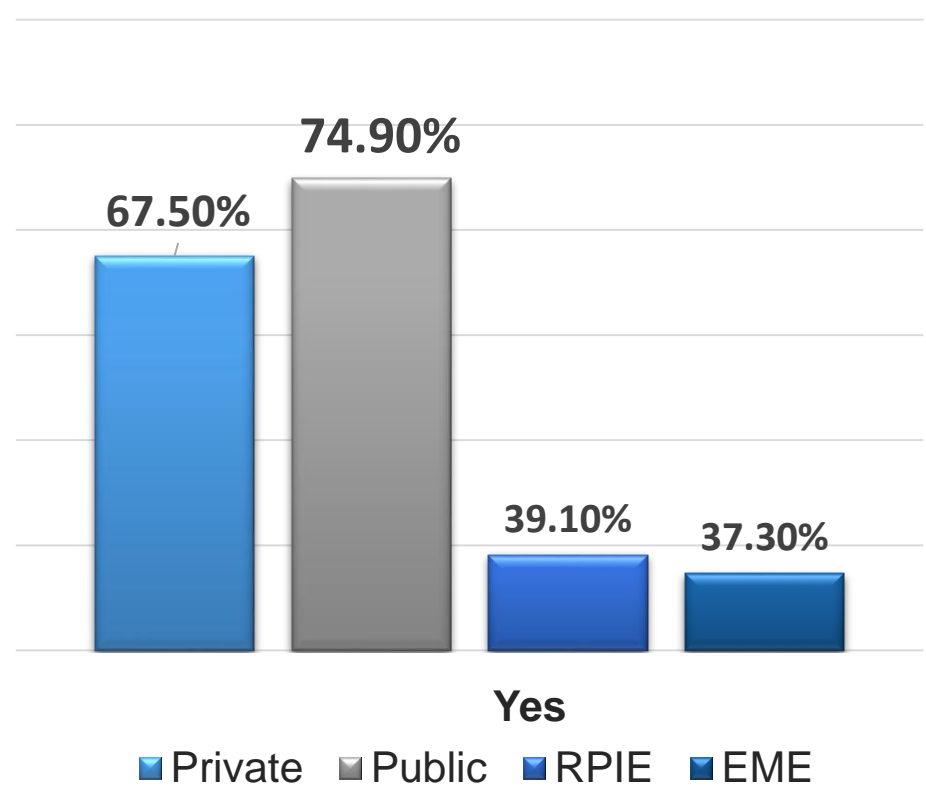


Figure 2. Had a Routine Checkup in 2012



Results

Adjusted Odds Ratios of Health Characteristics

	Private vs. Public	RPIE vs. EME	Private vs. RPIE	Public vs. EME
	Adjust odd ratios (95% CI)			
General Health				
Fair/Poor, self-reported health	0.469*** (0.400, 0.550)	0.856 (0.699, 1.048)	0.823** (0.719, 0.942)	2.020*** (1.727, 2.363)
Chronic Conditions				
Heart Diseases	0.693*** (0.566, 0.849)	0.715 (0.507, 1.009)	1.304** (1.089, 1.561)	2.221*** (1.767, 2.792)
Diabetes	0.548*** (0.448-0.671)	1.019 (0.751, 1.382)	1.464*** (1.216, 1.761)	2.439*** (1.951, 3.050)
Cancer	1.060 (0.812, 1.384)	0.913 (0.569, 1.466)	1.412** (1.121, 1.777)	1.773** (1.270, 2.475)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Adjusted odds ratios were obtained from the multiple logistic regression controlling for age, gender, race/ethnicity, family income, education, marital status, region and family size.

Results

Adjusted Odds Ratios of Health Utilization

	Private vs. Public	RPIE vs. EME	Private vs. RPIE	Public vs. EME
	Adjust odd ratios (95% CI)			
Access to care				
Routine Check-up, in the past 12 months	0.720*** (0.620, 0.835)	1.081 (0.914, 1.279)	2.908*** (2.638, 3.205)	3.929*** (3.383, 4.563)
Women's Screenings				
Pap test, in the past 3 years	1.094 (0.849, 1.411)	1.102 (0.834, 1.456)	2.436*** (2.036, 2.914)	1.889*** (1.490, 2.393)
Breast exam, in the past 2 years	1.047 (0.841, 1.305)	1.186 (0.933, 1.508)	2.746*** (2.348, 3.210)	2.045*** (1.674, 2.498)
Mammogram, in the past 2 years	1.066 (0.868, 1.309)	1.089 (0.837, 1.416)	2.665*** (2.269, 3.130)	1.848*** (1.500, 2.277)

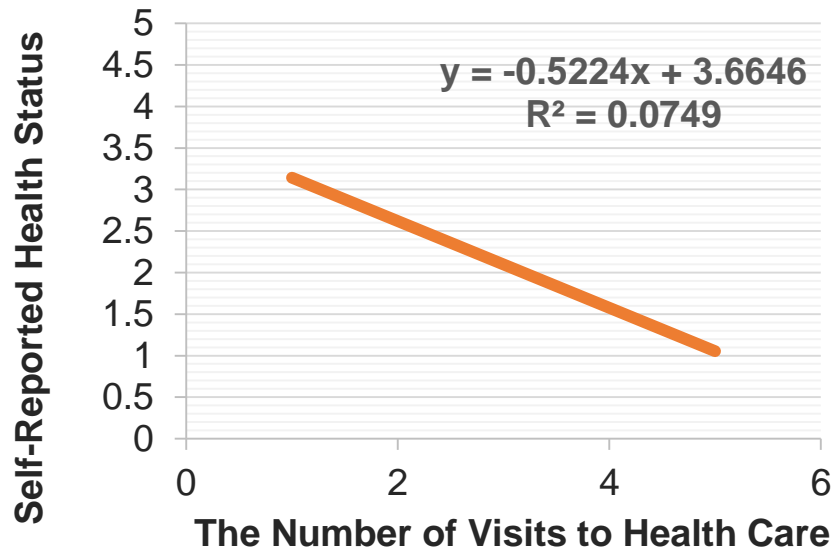
Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Adjusted odds ratios were obtained from the multiple logistic regression controlling for age, gender, race/ethnicity, family income, education, marital status, region and family size.

Results

Correlations between the number of visits to care and health status

Figure 3. Linear Regression: The Number of Visits & Health Status



	Insured		Uninsured	
# of visits to care	Private	Public	RPIE	EME
0	29.00%	22.40%	59.30%	62.60%
1	19.20%	12.90%	13.70%	11.80%
2	16.00%	13.30%	8.90%	9.10%
3	11.30%	11.20%	6.20%	5.30%
4	8.20%	11.60%	4.70%	3.40%
5 to 9	10.70%	15.50%	5.00%	4.60%
10 or more	5.60%	13.10%	2.20%	3.20%

Type of Insurance	Variable	Self-Reported Health
Private	# of visits to health care	- 0.194***
Public	# of visits to health care	- 0.348***
Uninsured with RPIE	# of visits to health care	- 0.216***
Uninsured with EME	# of visits to health care	- 0.222***

Findings

- The publicly insured reported worse health outcomes than the privately insured, RPIE, and EME on most health indicators despite better access to care.
- In the group comparison within the insured and uninsured, multiple logistic regression results indicated that all prevalence of chronic conditions except cancer differed significantly between the privately insured and publicly insured population, while it did not between RPIE and EME.
- In terms of the number of visit to medical offices, more than half of the both RPIE (**59.3%**) and EME (**62.6%**) had no visit in the past 12 months, compared with 29% of the privately insured and 22.4% of the publicly insured.
- For the women's cancer screening, women covered through private insurance were more likely to report having had all three screenings than were women with other insurance status.

Conclusion

- Based on our findings, it appears that the general health outcomes of those who are publicly insured are the worst despite the higher rates of visits to health care and better accessibility.
- Overall, having insurance coverage does not seem to contribute to better self-reported health.
- This study also suggests that effect of health coverage on health status may vary according to the type of insurance.

Implications

- Although policy interest has centered on narrowing the gap between the uninsured and the insured, increased access to healthcare with the Medicaid expansion under the ACA may not play as significant a role improving the general health status among the uninsured as much as anticipated.
- Given the discrimination, low profitability for public insurance, policy makers who must justify the ACA enactment should address the low physicians' acceptance of the publicly insured patients, and need to establish policies to ensure newly insured population can receive quality care, not quantity.

References

[Selected-1]

- Baker, D., & Sudano, J. (2006). Health Insurance Coverage and the Risk of Decline in Overall Health and Death Among the Near Elderly, 1992-2002. *Medical Care*, 44(3), 277–282.
- Boukus, E., Cassil, A., & O'Malley, A. S. (2009). A snapshot of U.S. physicians: key findings from the 2008 Health Tracking Physician Survey. *Data Bulletin (Center for Studying Health System Change)*.
- Bovbjerg, R. R., & Hadley, J. (2007). *Why Health Insurance Is Important*. *The Urban Institute* (pp. 3–5).
- Cohen, J. W., Cohen, S. B., & Banthin, J. S. (2009). The Medical Expenditure Panel Survey: a national information resource to support healthcare cost research and inform policy and practice. *Medical Care*, 47(7 Suppl 1), S44–50. doi:10.1097/MLR.0b013e3181a23e3a
- Congress Budget Office. (2011). *CBO 's Analysis of the Major Health Care Legislation Enacted in March 2010*. *Statement of Douglas W. Elmendorf*. Washington, DC: Congress Budget Office.
- Courtemanche, C. J., & Zapata, D. (2014). Does Universal Coverage Improve Health? The Massachusetts Experience. *Journal of Policy Analysis and Management*, 33(1), 36–69. doi:10.1002/pam.21737
- Cunningham, P. (2011). State variation in primary care physician supply: implications for health reform Medicaid expansions, (19). Franks, P., Clancy, C. M., Gold, M. R., & Nutting, P. a. (1993). Health insurance and subjective health status: data from the 1987 National Medical Expenditure survey. *American Journal of Public Health*, 83(9), 1295–9.
- Haislmaier, E., & Blase, B. (2010). Obamacare: Impact on States. *Backgrounder*, 4999(2433), 1–19.

References

[Selected-2]

- Lasser, K. E., Himmelstein, D. U., & Woolhandler, S. (2006). Access to care, health status, and health disparities in the United States and Canada: results of a cross-national population-based survey. *American Journal of Public Health, 96*(7), 1300–7. doi:10.2105/AJPH.2004.059402
- Martin, A. B., Hartman, M., Whittle, L., & Catlin, A. (2014). National health spending in 2012: rate of health spending growth remained low for the fourth consecutive year. *Health Affairs (Project Hope), 33*(1), 67–77. doi:10.1377/hlthaff.2013.1254
- Martinez, M. E., & Cohen, R. A. (2011). Health Insurance Coverage : Early Release of Estimates From the National Health Interview Survey , January – June 2011 (pp. 1–26).
- McWilliams, J. M., Zaslavsky, a. M., Meara, E., & Ayanian, J. Z. (2004). Health Insurance Coverage And Mortality Among The Near-Elderly. *Health Affairs, 23*(4), 223–233. doi:10.1377/hlthaff.23.4.223
- Medicare.gov. (2014). Medicaid Eligibility. Retrieved December 11, 2014, from <http://www.medicare.gov/AffordableCareAct/Provisions/Eligibility.html>
- Nasseh, A. K., Ph, D., Vujicic, M., & Dell, A. O. (2013). Affordable Care Act Expands Dental Benefits for Children But Does Not Address Critical Access to Dental Care Issues. American Dental Association, (April).
- National Association of Community Health Center. (2012). The State of Unmet Need alth for Primary Health Care in America. Bethesda, MD. Retrieved from www.nachc.com/research-data.cfm
- Pylypchuk, Y., & Sarpong, E. M. (2013). Comparison of health care utilization: United States versus Canada. *Health Services Research, 48*(2 Pt 1), 560–81. doi:10.1111/j.1475-6773.2012.01466.x

References

[Selected-3]

- Schoen, C., Collins, S. R., Kriss, J. L., & Doty, M. M. (2008). How many are underinsured? trends among U.S. adults, 2003 and 2007. *Health Affairs*. doi:10.1377/hlthaff.27.4.w298
- Schoen, C., Doty, M. M., Robertson, R. H., & Collins, S. R. (2011). Affordable Care Act reforms could reduce the number of underinsured US adults by 70 percent. *Health Affairs (Project Hope)*, 30(9), 1762–71. doi:10.1377/hlthaff.2011.0335
- Schoen, C., Osborn, R., Squires, D., Doty, M. M., Pierson, R., & Applebaum, S. (2010). How health insurance design affects access to care and costs, by income, in eleven countries. *Health Affairs (Project Hope)*, 29(12), 2323–34. doi:10.1377/hlthaff.2010.0862
- Shi, L. (2000). Type of health insurance and the quality of primary care experience. *American Journal of Public Health*, 90(12), 1848–55.
- Sommers, B., & Kronick, R. (2012). The Affordable Care Act and insurance coverage for young adults. *JAMA*, 307(9), 7–8. Retrieved from <http://jama.jamanetwork.com/article.aspx?articleid=1569178>
- Tsai, J., & Rosenheck, R. (2014). Uninsured Veterans Who Will Need to Obtain Insurance Coverage Under the Patient Protection and Affordable Care Act. *American Journal of Public Health*. Retrieved from <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2013.301791>
- Tsai, J., Rosenheck, R. a, Culhane, D. P., & Artiga, S. (2013). Medicaid expansion: chronically homeless adults will need targeted enrollment and access to a broad range of services. *Health Affairs (Project Hope)*, 32(9), 1552–9. doi:10.1377/hlthaff.2013.0228
- Weiner, S. (2001). “I can’t afford that!”: Dilemmas in the care of the uninsured and underinsured. *Journal of General Internal Medicine*. doi:10.1046/j.1525-1497.2001.016006412.x

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***Research interests:**

- Health Service Quality
- Patient's Satisfaction
- Health Reform
- Attitudes of Health Provider
- Medical Tourism
- Health Insurance
- Evaluation of Health Technology
- Assessment of Health Care Costs
- Quantitative Research
- Path Analysis