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The Effect of Health Insurance on Out of Pocket Expenditure

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1 Introduction

The effect of health insurance on health care utilization among young adults in the United States is an understudied area. Instead, studies have focused on healthcare utilization of other demographics. Studies have examined the effects of health insurance on health care utilization for the poor and near-poor, those near the medicare enrollment age and the general population, including young adults but no more current evidence on the behavior of young adults in regards to health insurance and utilization exists. This type of research is hampered by endogeneity, in this case that health insurance status and health care utilization covary. This can be in part due to adverse selection, which arises when there is asymmetric information in the market place. For example, an individual may have better knowledge of their own health than the insurer and use that information to decide how much insurance to get. Moral hazard is another possible issue that can contribute to endogeneity issues, where an individual utilizes more medical services as a result of being insured. It is important to analyze the effect of health insurance and utilization on expenditure because high out of pocket healthcare expenditure has been shown to have an adverse effect on access to healthcare (Karaca-Mandic et al., 2014). Furthermore, in real terms, the cost for healthcare increased between 1999 and 2009 resulting in an increase of $95 in monthly income to devote to non-health spending rather than an increase of $545 (Auerbach and Kellermann, 2011).

The dependent care provision of the Patient Protection and Affordable Care Act (ACA) went into effect September 23, 2010. This provision allowed children to stay on their parents' private health care insurance until the age 26; and removed restrictions based on marriage, dependency, residency, and student status which had previously varied at the state level. Previous research has shown that there was an increase in insurance coverage rates resulting from this legislation in the target demographic (19-26 year olds) (Barbaresco et al., 2015; Cantor et al., 2012a). The policy change allows for the examination of the effect of health insurance on health related outcomes and expenditure; using the law change as an exogenous shock, it can be used as a natural experiment. Using data from the Medical Expenditure Panel Survey (MEPS), a difference-in-difference approach using a two-part model can be used to examine expenditure outcomes. However, this is a naive

model due to the endogenous relationship between health insurance status and health care utilization. For this reason this paper expands upon that set-up, using a two stage residual inclusion model, or control function, to examine expenditure outcomes. The age groups for this paper are 21-25 year olds and 26-29 year olds. Data from 2008-2010 is before the policy change, while data from 2011-2012 denote periods after the ACA went into effect.

The following section details the available previous literature that this paper builds upon. Section 3 describes the data and model that is utilized for this study. The paper continues with the results in Section 4 and concludes with discussion of the results in Section 5.

2 Literature Review

The literature review is organized into two sections, notable previous insurance literature and literature related to the Affordable Care Act. A broad overview of past major insurance research is provided in section 2.1. The Affordable Care Act literature is discussed in section 2.2, and is further divided into two subsets, dependent coverage expansion and expenditure effects.

2.1 Notable Previous Insurance Literature

There are three formative papers that exploit random variation in health care coverage to examine the effects of health insurance on different groups. The first had the benefit of being a federally funded experiment. Manning et al. (1987) reported findings from the Rand Health Insurance Experiment (HIE). The HIE was initiated by the federal government in 1974 and was intended to examine many issues including; whether the demand response for public insurance is different for the poor, whether insurance elasticities vary by type of medical procedure, how the change in consumption of medical services at the margin affects health, and to examine whether lower expenditures in Health Maintenance Organizations were due to selection of healthier members or more efficient treatment. The HIE took place between 1974 and 1977, and enrolled families from selected areas of the United States. There were fourteen categories of fee-for-service insurance or prepaid group insurance that the families could be enrolled into. Families were assigned to one of

these programs using the Finite Selection Model. Using Analysis of Variance (ANOVA) they found that per capita expenses were 45% higher on plans with no out of pocket costs than plans with 95% coinsurance rates (that were subject to an upper limit on out of pocket expenses). They found that plans with intermediate cost-sharing had spending rates between those two extremes. The differences in cost sharing affected the number of contacts more than the intensity of the contacts. The largest difference for outpatient services occurred between the free and 25% plans. Using the four equation model, they found that mean predicted expenditure was 46% higher for the free plans (compared to 45% for ANOVA). The second, Card et al. (2009), used a reduced-form regression discontinuity model to examine the effect of Medicare using the change of insurance status at the age 65 Medicare eligibility threshold. They used data from 1992-2002 from hospitals which are regulated by the state of California. They found that Medicare has a small significant positive effect on intensity of treatment at age 65 and a decrease in the mortality rate. The third employed a lottery that was used to determine which uninsured low income adults would be allowed to apply to Medicaid in Oregon. Finkelstein et al. (2012) used this lottery in a randomized controlled design setup in order to examine the effect of increasing access to public health insurance. Specifically, they looked at the effect it had on health care utilization, health outcomes, and the financial effects on low income persons after one year by using lottery selection as an instrument for insurance coverage. The lottery was available to 90,000 persons who signed up to be on a waiting list for Oregon's Medicaid program. They found that insurance coverage, instrumented by the lottery selection, was associated with increases in the likelihoods of having a hospital admission, taking prescription drugs and having an outpatient visit. They were unable to reject the null that emergency room utilization was unchanged. In addition, they found that insurance results in a decrease of exposure to medical liabilities and out of pocket medical expenses. From the survey they find that having Medicaid is associated with an increase in self-reported health.

2.2 The Affordable Care Act

2.2.1 Dependent Coverage Expansion

Several papers have examined the effect of dependent coverage mandate. Using the Current Population Survey's Annual Demographic Supplement for the year 2000-2008, Monheit et al. (2011) examined state level dependent care coverage expansion that took place prior to the enactment of the Affordable Care Act provision using linear probability models in a difference-in-difference approach. The treatment group was composed of 19-25 year olds who resided with their parents and the control group included 26-29 year olds. In the 19 early adopting states examined, they found dependent coverage increased between 1.52 and 3.84 percentage points for persons aged 19-25 who lived with their parents. However, no significant results were found for changes in the uninsured rate and the increases in dependent coverage were partially offset by decreases in employer sponsored insurance. Blum et al. (2012) also used a difference-in-difference approach to examine state level dependent coverage expansion. They utilized Behavioral Risk Factor Surveillance System data from 2002-2004 and 2008-2009 (treatment group: 19-23 year olds in states that enacted dependent coverage expansion laws in 2005 or 2006, control group: 19-23 year olds in states that did not expand). They found that the states with the expansion had larger increases in health insurance. They also found larger increases in personal physician identification, recent physical exams and decreases in foregone care due to cost in the states with dependent care coverage expansion. Cantor et al. (2012a), Sommers et al. (2013), and Barbaresco et al. (2015) all used a difference-in-difference approach to examine the effect of the dependent care provision on having insurance. Although the ages vary slightly, these studies compared treatment (approximately ages 19-25) and control (ages 26-30) groups before and after the implementation of the policy. These studies found that insurance rates among the treated group increased more than in the control groups. This paper finds similar shifts in insurance designations. Cantor et al. (2012b) used the Current Population Survey (years 2004-2010) and a difference-in-difference framework to examine the interaction between state level dependent care expansion and the ACA dependent care provision. Examining a series of multivariate linear probability models, they find that states that had prior dependent coverage expansion

had a higher rate of insurance pick up than states without previous expansion. Unlike previous analysis of state level expansion, they do not find that the increase in dependent coverage was offset by a decrease in employer sponsored insurance.

2.2.2 Expenditure Effects

The research on the expenditure effects of the Affordable Care Act dependent care provision is limited. Busch, Golberstein and Meara (2014) Busch et al. (2014) used a differences-in-differences approach to examine the dependent care provisions effect on high out of pocket expenses for the years 2007-2011 with data from MEPS. The years 2007-2009 were the reference period for the analysis. The treatment group included persons aged 19-25 and the control group included persons aged 26-29. They found a net -2.4 percentage point difference between the treatment and control groups relative to the reference time period on the proportion of persons with out of pocket expenditures greater than $1,500. Similarly, they found a net difference of -4.4 percentage points for out of pocket expenditures greater than $500. Clemans-Cope et al. (2013) used MEPS data from the years 2003-2009 to analyze the effect the Affordable Care Act would have on uninsured adults, through the expansion of the Medicaid program. Specifically examining two subsets of the population, persons with chronic conditions and persons with mental health conditions, they analyzed the effect of having Medicaid on usage and expenditure. To estimate expenditures, they utilized a two-part generalized linear model, with a logistic regression for the first part and a gamma regression model with a log link as the second part. For both low income persons with chronic conditions and low income persons with mental health conditions, they found individuals on Medicaid have higher total usage and healthcare expenditure (excluding out of pocket costs). Next, they projected the effect of the Affordable Care Act Medicaid expansion. They projected that total per capita health care expenditure (excluding out of pocket costs) would increase $3693 for persons who become eligible for Medicaid after previously being uninsured. For these same individuals, out of pocket expenditure is projected to decrease to $921.

3 Methods

3.1 Data

The publicly available Household Component of the Medical Expenditure Panel Survey (MEPS) from the years 2008-2012 was used. The Medical Expenditure Panel survey was first conducted in 1996 and contains data from families and individuals, medical providers, and employers. MEPS has data on Americans health service usage, the cost of health services, the manner in which the health services are paid for and the state of health insurance available to U.S. workers. The data include approximately 21,000 observations with about 19,000 observations included in the regression analysis. Entropy balancing is used to create a balanced sample. This paper uses expenditure variables as the dependent variables. They include total expenditure, total amount paid by self/family, office based visits self/family amount, inpatient hospital stays self/family amount, and emergency room self/family amount. The main variable of interest is the type of insurance coverage, which is broken into three categories: private, public and uninsured. In this paper, approximately 58% of people are privately insured, 13% only have public insurance, and 29% are uninsured. Control variables include family income level, education level, region, metropolitan statistical areas, instrumental activities of daily living (IADL), activities of daily living limitations (ADL), age and dummy variables for race, marital status, the year, and gender. Less than 15% of persons in the sample had less than a grade 12 level of education when they entered MEPS. Approximately 1% of persons responded yes to the IADL screener question and fewer than .5% of persons responded yes to the ADL screener question. For these analyses, age is restricted to persons between the age of 21-29. Table 4 shows age demographics. Approximately 14% of persons are Black, 5% are Asian, and 21% are Hispanic in the sample. Only 17% of persons are married within the sample. The sample has an even gender split. Tables 2 and 3 show summary statistics for the dependent and independent variables.

3.2 Model Specification

Two stage least squares using instrumental variables may be used in cases of endogeneity. In two stage least squares, an additional regressor, that does not directly affect the dependent variable, is used to better capture the effect that endogenous independent variables have on the dependent variable. The instrument should capture the effects on the dependent variable of shifts in the endogenous independent variable due to the instrument. In the first stage, the endogenous regressor is regressed on all the exogenous variables using the ordinary least squares method (OLS). The resulting predicted value is then included as an additional regressor in the original regression of interest. When a non-linear model may be better suited for estimation, a two stage residual inclusion approach, also known as a control function, may be utilized. The control function method utilizes residuals from a first stage estimation as additional regressors in the second stage. In cases of linearity, this is the same effect as two stage least squares. Terza, Basu and Rathouz (2008) suggest that this is a possible technique to mitigate the effect of endogeneity and demonstrate that this approach is consistent by using a simulation study and re-estimating Mullahy (1997) study on models of cigarette smoking behavior. This paper uses a control function approach which utilizes a difference-in-difference multinomial logit first stage.

The difference-in-difference examination utilizes the change in policy that occurred with the enactment of the ACA dependent care provision. The difference-in-difference is specified with a treatment group of 21-25 year olds and a control group of 26-29 year olds, and split between pre-implementation and post policy implementation. Table 1 shows how the difference-in-difference is specified. The main variable of interest in this regression is the interaction term (in the treatment group and after the policy went into effect) which is significant. A multinomial logit model is used to predict the likelihood of having private or public insurance, with the base level being uninsured. The interaction term (in the treatment group and after the policy went into effect) from this stage is used as the instrument for the control function analysis. Residuals are generated to be included as additional regressors for the control function examination.

Previous health-related literature has suggested the use of the two-part model in cases with a

high percentage of observed zeroes in the data (in healthcare this is often due to zero usage of health services). For this reason, a two-part model is used for the second block of the control function. The two-part model breaks the process of utilizing medical services into two parts. The first part accounts for the decision making process of utilizing a medical service (and consequently incurring a positive expense), and the second part examines the level of expense incurred (Duan et al., 1983). The two-part model can be used to show a combined overall effect. The first part of the two-part model is a logit model and the second part is a generalized linear model with gamma log link to account for skewness. The dependent variable is an expenditure variable and the independent variables include family income level, education level, region, metropolitan statistical areas, instrumental activities of daily living (IADL), activities of daily living limitations (ADL), age and dummy variables for race, marital status, the year, and gender. The generated residuals and endogenous variable (insurance) are included in the two-part model for the control function examination. Binary variables for year and ages are included. The interaction term is the only excluded variable.

4 Results

In this section all reported results are relative to the base of being uninsured. The first results reported are the likelihoods of having different types of insurance from a multinomial logit model. Section 5.1 discusses results from the analysis where insurance status is assumed to be exogenous. Results utilizing the control function approach are reported in Section 5.2. The results for the multinomial logit regression are reported in Table 5. Table 6 reports the results for total expenditure and total out-of-pocket expenditure. The results for the analysis of the emergency room, office based visits and inpatient hospital stays out-of-pocket expenditures are reported in Table 7.

The results from the first stage multinomial logit regression are reported in Table 5. Results show that being in the treatment group makes one 1.42 times as likely to have private insurance ($p < 0.01$). Being in the interaction group makes one 1.478 times more likely to be privately insured ($p < 0.001$). Being in the treatment or interaction cohort does not make one statistically more likely

to have only public insurance. Women are 1.347 times more likely to have private insurance ($p < 0.001$) and 4.794 times more likely to be publicly insured ($p < 0.001$). Married persons are 1.736 times more likely to be privately insured ($p < 0.001$). Black persons are 0.61 times as likely to have private insurance ($p < 0.001$) and 1.833 times more likely to be publicly insured ($p < 0.001$). Asian persons are 0.581 times as likely to be privately insured ($p < 0.001$). Hispanic persons are 0.346 times as likely to be privately insured ($p < 0.001$) and 0.702 times as likely to be publicly insured ($p < 0.001$). Persons with higher incomes are more likely to have private insurance and less likely to have public insurance. Persons with more education are more likely to be privately insured ($p < 0.001$) and less likely to be publicly insured ($p < 0.001$).

4.1 Naive Model

The results for total expenditure are reported in Table 6. When examining total expenditure, the analysis in which insurance status is assumed to be exogenous yields that having private insurance makes one 22 percentage points more likely to have non-zero total expenditure ($p < 0.001$). The second stage shows an increase of \$1053.2 ($p <0.001$) and an overall effect of \$1119.7 ($p<0.001$). The effect of having public insurance makes an individual 24.3 percentage points ($p <0.001$) more likely to have non-zero expenditure. The second stage shows an increase of \$3154.5 ($p <0.001$). Overall the effect of having public insurance is \$2793.5 ($p < 0.001$).

The effects of each type of insurance on the total out of pocket expenditure are reported in table 6. Having private insurance makes one 20.2 percentage points ($p < 0.001$) more likely to have non-zero out of pocket expenditure. The second stage yields a decrease of \$186.5 ($p < 0.001$) and a significant overall effect is not found. Having public insurance makes one 5.99 percentage points ($p < 0.001$) more likely to have non-zero expenditure. The second stage shows a decrease of \$321.5 ($p < 0.001$) and the overall effect is a decrease of \$131.1 ($p < 0.001$).

The emergency room self/family amount figures are reported in Table 7. The effect of having private insurance does not yield a significant first stage result. The second stage results show a decrease of \$286.8 ($p < 0.001$) and the overall effect shows a \$20.43 ($p < 0.001$) decrease. The effect of having public insurance on the emergency room self/family amount makes one 2.81 percentage

points ($p < 0.001$) less likely to have non-zero expenditure, while the second stage shows a decrease of \$284.9 ($p < 0.001$) and an overall effect yields a decrease of \$27.83 ($p < 0.001$).

The results for the office based visits self/family amount are reported in Table 7. Privately, the first part of the two-part model shows a 21.0 percentage point ($p < 0.001$) increase in the likelihood of having non-zero expenditure for the office based visits self/family amount. The second stage shows a decrease of \$99.20 ($p < 0.01$). A significant result is not found for the overall effect. The first stage effects of having public insurance on the office based visits self/family amount show a 7.03 percentage point ($p < 0.001$) decrease in the likelihood of having non-zero expenditure in this category. The only other significant result for the effect of having public insurance on the office based visits self/family amount is an overall decrease of \$32.54 ($p < 0.05$).

Table 7 shows the effect of having insurance on the inpatient hospital stays self/family amount. The only significant result is a first stage 1.24 percentage point ($p < 0.001$) increase in the likelihood of having non-zero expenditure from having private insurance.

In summation, using this framework, relative to being uninsured, having insurance increases the likelihood of having non-zero total expenditure and out of pocket expenditure. Having public insurance decreases the likelihood of having non-zero emergency room out of pocket costs. Having private insurance increases the likelihood of having non-zero office based visits and inpatient hospital stays out of pocket expenditures. Having public insurance decreases the likelihood of having office based visits out of pocket costs. Being insured increases the overall expenditure, but decreases out of pocket costs where significant results are found.

4.2 Control Function

Using the control function approach shows that having private insurance makes one 26.2 percentage points ($p < 0.01$) more likely to have non-zero total expenditure. With this approach, significant results are not found for the second stage or overall. Having public insurance makes 26.4 percentage points ($p < 0.01$) more likely to have non-zero total expenditure. Significant results are not found for the second stage or overall effects.

An individual with private insurance is 18.5 percentage points ($p < 0.05$) more likely to have

non-zero out of pocket expenditure, and significant results are not found for the second stage or overall effect. Having public insurance shows a second stage effect of a decrease of \$1388.9 ($p < 0.05$) and a decrease of \$793.0 ($p < 0.05$) overall effect.

The effect of having private insurance shows a decrease of 17.2 percentage points ($p < 0.05$) in the likelihood of having a non-zero emergency room self/family amount. The control function approach does not give significant second stage or overall effects. The effects of having public insurance on the emergency room self/family amount are not significant.

The effect of having private insurance on the office based visits self/family amount is a 35.3 percentage point ($p < 0.001$) increase in the likelihood of having non-zero expenditure in that category. The second stage and overall effect of the two-part model do not give significant results. Having public insurance gives a first stage result of a decrease of 11.7 percentage points ($p < 0.05$) with the control function approach, but significant results are not found for the second stage or overall effect.

Using the control function approach, relative to being uninsured, having insurance makes one more likely to have non-zero total expenditure. Being privately insured increases the likelihood of having non-zero total out of pocket and office based visits out of pocket expenditures, and decreases the likelihood of having emergency room out of pocket expenditures. Being publicly insured decreases the amount paid for total out of pocket expenditures.

5 Conclusion

Using the approach in this paper, the effect of having insurance on healthcare expenditures is undetermined. Being insured has mixed effects on expenditure. The results between the naive model and control function model are not entirely consistent. The control function method results are theoretically more accurate, however it is difficult to parse out endogenous effects. F-tests show that the residuals added in the control function approach are significant, which further supports the control function method.

The results from this paper show that persons that are insured are more likely to have non-

zero expenditure overall (for both privately and publicly insured) and out of pocket (for privately insured) relative to the uninsured. However this paper cannot distinguish whether these changes are due to moral hazard or are due to the shift in demand due to the lower cost for medical services. Unlike Finkelstein et al. (2012), which was unable to reject the null that emergency room utilization was unchanged, this paper finds that having private insurance makes one less likely to have non-zero out of pocket emergency room expenditure. The results from this study suggest that insured persons have higher health expenditures overall, which is consistent with findings from Cardon and Hendel (2001). However, this cannot be used to suggest that health insurance does not provide a benefit to the insured as it fails to account for any possible benefits from consumption smoothing and long term health effects.

This paper is limited by sample size and the high percentage of persons with zero expenditure. Further research with a larger sample size may be able to more accurately capture endogenous effects.

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6 Tables

Table 1: Sample Size by ACA Expansion Status and Age

	Pre-Implementation 2008-2010	Post-Implementation 2011-2012
Control		
26-29	5,254	3,961
Treatment		
21-25	6,465	4,999

Table 2: Summary Statistics for Expenditures

	mean	sd	count
Health Care Expenditure	1974.832	14307.439	19157
Amount Paid by Self/Family	330.214	980.455	19157
ER Amount Paid by Self/Family	25.443	231.675	19157
Office Based Visits Paid by Self/Family	93.197	414.839	19157
Inpatient Hospital Stays Paid by Self/Family	30.752	494.897	19157

Table 3: Summary Statistics for Independent Variables

	mean	sd	count
Health Insurance Coverage Indicator	1.709	0.885	19157
Treatment Group	0.500	0.500	19157
Interaction	0.205	0.404	19157
2009	0.199	0.399	19157
2010	0.201	0.401	19157
2011	0.209	0.407	19157
2012	0.201	0.401	19157
Age	25.236	2.563	19157
Female	0.499	0.500	19157
Marital Status	0.174	0.379	19157
Black	0.142	0.349	19157
Asian	0.051	0.221	19157
Hispanic	0.208	0.406	19157
Log of Family Income	10.211	1.971	19157
Years of Education	13.155	2.282	19157
ADL Screener	1.996	0.062	19157
IADL Screener	1.990	0.100	19157
Census Region	2.679	1.029	19157
MSA	0.870	0.336	19157

Table 4: Age Demographics of Persons in Sample

	Pre-Policy 2008-2010	Post-Policy 2011-2012
21	1342	1027
22	1268	977
23	1307	967
24	1297	994
25	1251	1034
26	1344	1002
27	1279	1018
28	1303	931
29	1328	1010
Observations	11719	8960

Table 5: Multinomial Logit Model

	Private	Public Only
Treatment Group	1.420**	1.203
	(0.173)	(0.180)
Interaction	1.478***	1.174
	(0.162)	(0.160)
Female	1.347***	4.794***
	(0.082)	(0.387)
Married	1.736***	1.168
	(0.128)	(0.114)
Black	0.610***	1.833***
	(0.049)	(0.180)
Asian	0.581***	0.796
	(0.073)	(0.167)
Hispanic	0.346***	0.702***
	(0.025)	(0.072)
Log of Family Income	1.319***	0.923***
	(0.039)	(0.011)
Years of Education	1.498***	0.893***
	(0.027)	(0.016)
ADL Screener	1.766	1.924
	(1.399)	(1.639)
IADL Screener	2.220	12.026***
	(0.967)	(4.974)
Region	1.010	0.712***
	(0.033)	(0.031)
MSA	1.076	0.909
	(0.106)	(0.109)
_cons	0.001***	3.356***
	(0.000)	(1.049)
N	19157	

Exponentiated coefficients; Standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Table 6: Effects of Insurance on Total Health Expenditure and Total Out-of-Pocket Expenditures

		Naive			Control Function	
	Logit	GLM	TPM	Logit	GLM	TPM
			Total Expenditure			
Private	0.220***	1053.2***	1119.7***	0.262**	-64.96	594.9
	(18.59)	(5.53)	(8.51)	(3.24)	(-0.05)	(0.75)
Public	0.243***	3154.5***	2793.5***	0.264**	319.2	882.3
	(17.33)	(5.33)	(5.78)	(3.27)	(0.20)	(0.86)
Observations	19157	12469	19157	19157	12469	19157
			Total Out-of-pocket Expenditure			
Private	0.202***	-186.5***	1.224	0.185*	-917.4	-423.8
	(16.21)	(-3.96)	(0.05)	(2.27)	(-1.27)	(-1.03)
Public	0.0599***	-321.5***	-131.1***	-0.109	-1388.9*	-793.0*
	(3.68)	(-5.61)	(-4.47)	(-1.22)	(-2.07)	(-2.06)
Observations	19157	10846	19157	19157	10846	19157

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7: Effects of Insurance on Health Expenditures

	Naive			Control Function		
	Logit	GLM	TPM	Logit	GLM	TPM
	Emergency Room Out-of-Pocket Expenditure					
Private	-0.00326	-286.8***	-20.43***	-0.172*	181.0	-34.30
	(-0.49)	(-4.17)	(-3.68)	(-2.11)	(0.40)	(-0.81)
Public	-0.0281***	-284.9***	-27.83***	-0.134	129.7	-23.95
	(-3.87)	(-3.36)	(-4.77)	(-1.66)	(0.28)	(-0.59)
Observations	19157	1139	19157	19157	1139	19157
	Office Based Visits Out-of-Pocket Expenditure					
Private	0.210***	-99.20**	13.00	0.353***	-688.9	-75.23
	(16.75)	(-3.03)	(1.34)	(4.91)	(-1.01)	(-0.61)
Public	-0.0703***	-66.37	-32.54*	-0.117*	-625.5	-137.8
	(-4.59)	(-1.11)	(-2.48)	(-2.15)	(-1.03)	(-1.26)
Observations	19157	6512	19157	19157	6512	19157
	Inpatient Hospital Stays Out-of-Pocket Amount					
Private	0.0124***	-509.5	11.54	0.0495	-21171.7	1136.9
	(4.26)	(-1.25)	(1.23)	(1.53)	(-0.46)	(0.38)
Public	0.00889	-508.6	6.215	0.00265	-32728.7	-728.8
	(1.96)	(-0.91)	(0.44)	(0.26)	(-0.56)	(-0.45)
Observations	19157	469	19157	19157	469	19157

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

7 Figures

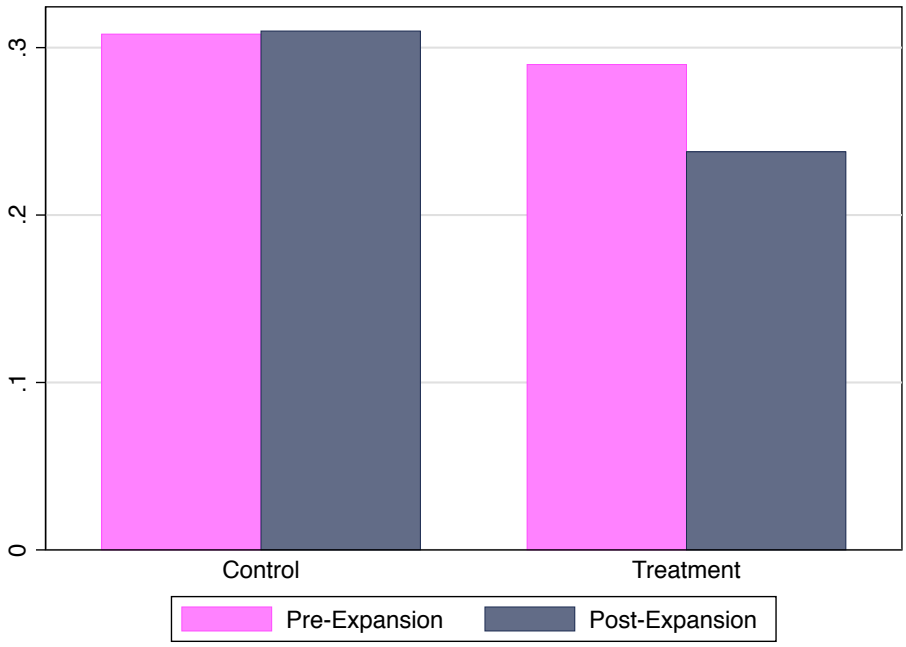

Figure 1: Uninsured Rates in Sample

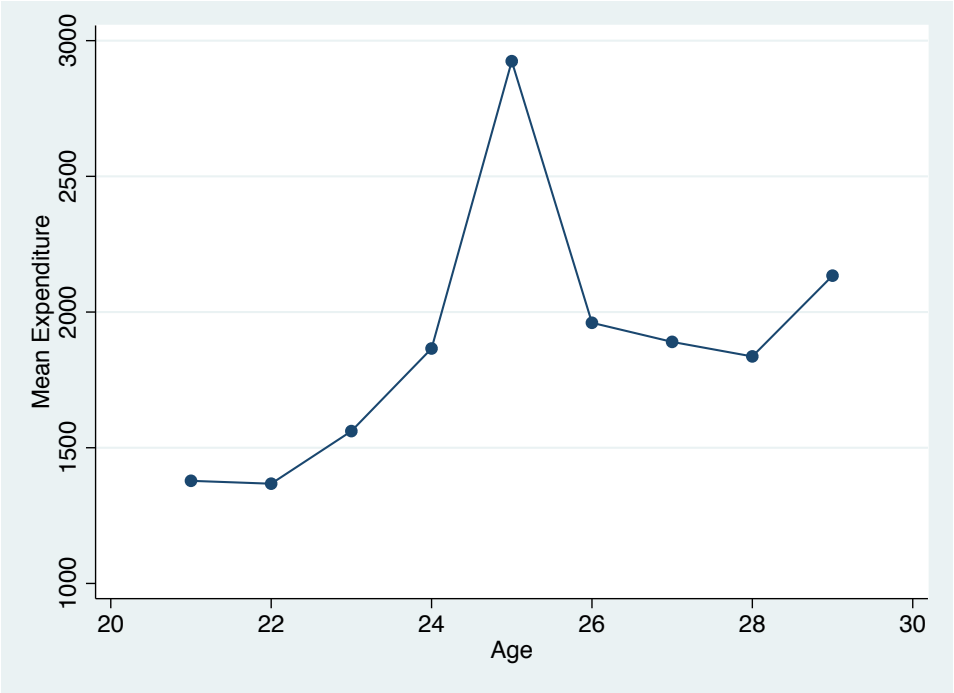

Figure 2: Mean Total Expenditure by Age

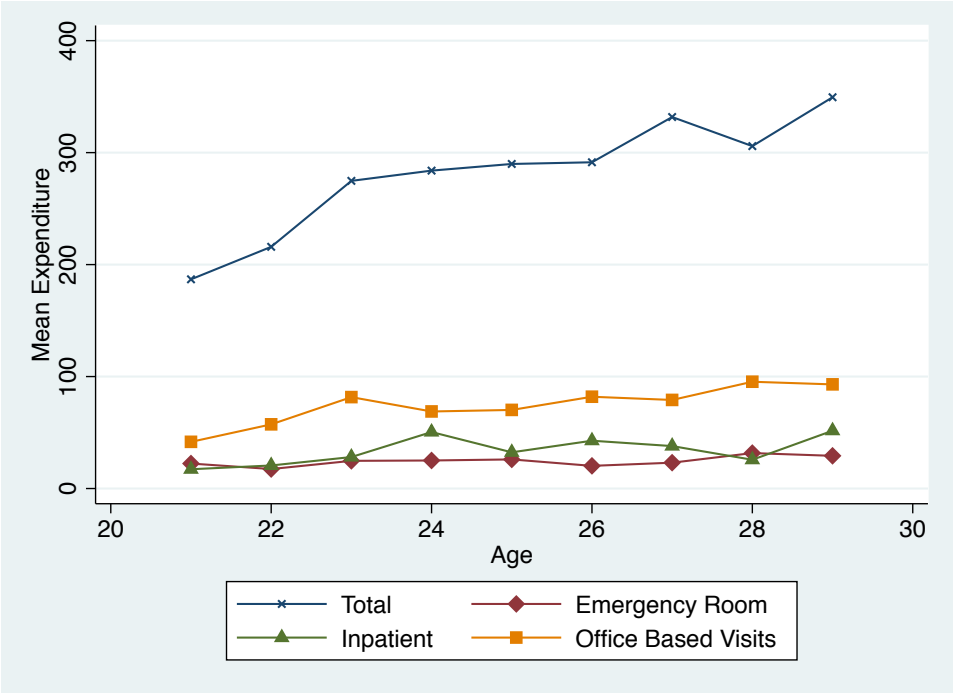

Figure 3: Mean Out-of-Pocket Expenditures by Age

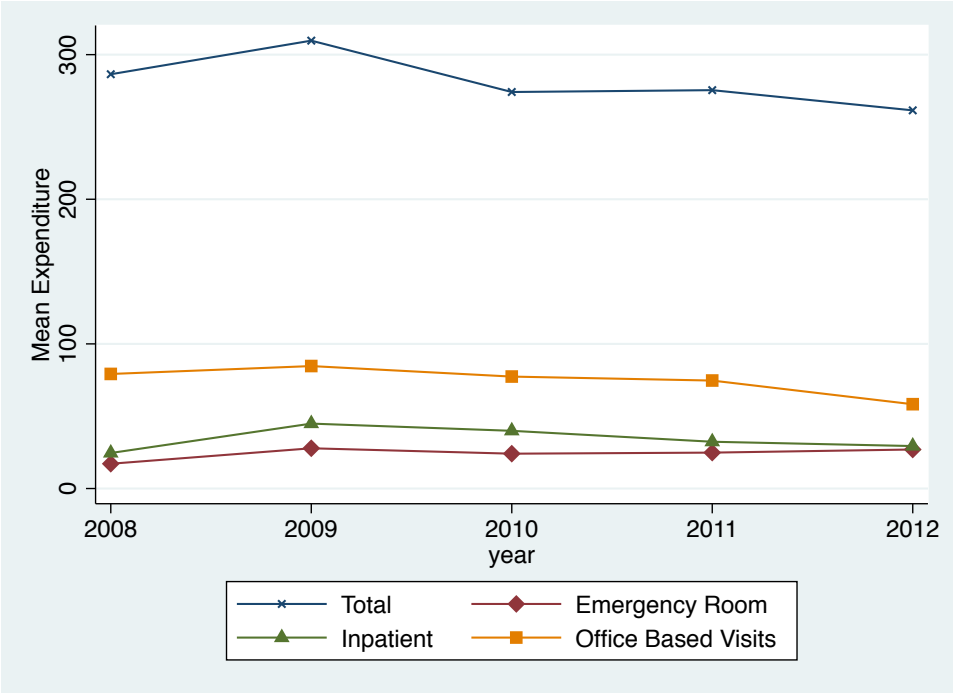

Figure 4: Mean Out-of-Pocket Expenditures by Year