Medicaid and Financial Health

Kenneth P. Brevoort,[1] Daniel Grodzicki,[2] and Martin Hackmann[3]

[1]CFPB, [2]Penn State, and [3]UCLA

FDIC 6th Annual Consumer Research Symposium
October 28, 2016

cfpb Consumer Financial
Protection Bureau

Outline

cfpb Consumer Financial
Protection Bureau

Affordable Care Act & Medicaid Expansion

- Medicaid is a federal program with *voluntary* state participation
- Before ACA, participating states had to cover specific populations meeting income requirements
  - Children
  - Pregnant women
  - Parents of dependent children
  - Individuals with disabilities
  - Individuals 65 or older
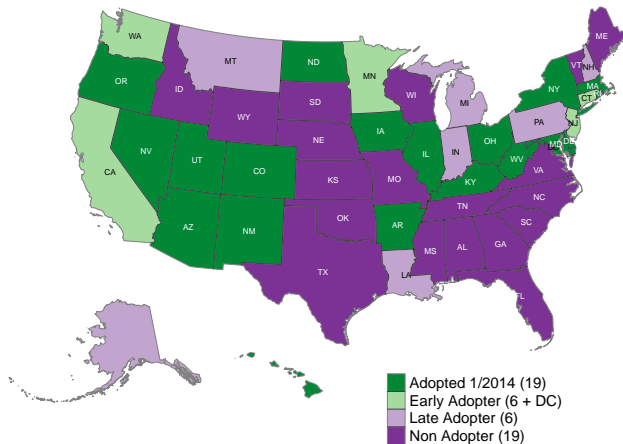- ACA required coverage be expanded to include people with incomes below 138% of FPL

cfpb Consumer Financial
Protection Bureau

NFIB v. Sebelius

- Supreme Court found the Medicaid expansion provisions of ACA to be unconstitutionally coercive

- As a result, states can voluntarily choose whether to expanded Medicaid coverage

- This provides a natural experiment of the role of health insurance in consumer financial health

cfpb Consumer Financial
Protection Bureau

States Expanding Medicaid

Legend:
- Adopted 1/2014 (19)
- Early Adopter (6 + DC)
- Late Adopter (6)
- Non Adopter (19)

cfpb Consumer Financial Protection Bureau

Existing Literature

- Role of medical debt in financial distress
    Nelson (1999); Domowitz and Sartain (1999);
    Warren et al. (2000); Fay et al. (2002); Dranove
    and Millenson (2006); Himmelstein et al. (2009);
    Zhu (2011)

- Insurance Expansions and Financial Distress
    Gross and Notowidigdo (2011); Mazumder and
    Miller (2015); Finkelstein, et al. (2012); Hu et al.
    (2016)

cfpb Consumer Financial
Protection Bureau

Empirical Approach

- Use Difference-in-Differences Strategy comparing outcomes in two groups:

  Treatment: States expanded Medicaid in January 2014

  Control: States that have not yet expanded Medicaid

- Evaluating whether there is a a reduction in

  Medical debt

  Financial distress

- Also use IV methods to estimate relationship between medical debt and financial distress

cfpb Consumer Financial
Protection Bureau

Data

- CFPB Consumer Credit Panel
    - 1-in-48 sample of de-identified credit records (about 5 million records)
    - Quarterly: September 2011 - December 2015
    - Contains tradeline-level information on
        - ★ Credit accounts
        - ★ Collections
        - ★ Public records
    - Census tract of residence

cfpb Consumer Financial
Protection Bureau

CFPB CCP's Advantages

- Can identify medical debt (unpaid bills) reported by
    - Medical providers directly
    - Third-party debt collectors
- However, CCP does not reveal
    - Type of medical service
    - Identity the medical provider.
- Tradeline-level information allow us to concentration on *flows*

cfpb Consumer Financial Protection Bureau

Difference-in-Difference Specification

$$y_{ict}^k = \alpha_c^k + \eta^k Post_t + \beta^k \left(Post_t \cdot Adopt_{s(c)} \right) + \nu_{ct}^k + \epsilon_{ict}^k \quad (1)$$

- y_{ijt}^k = Outcome measure (k indexes type)
- $Post_t$ = Indicator for reform period
- $Adopt_{s(c)}$ = Medicaid expansion indicator
- α_{ict}^k = tract-level fixed effects
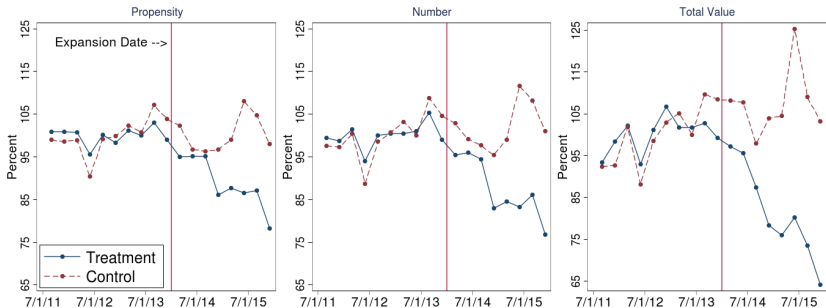- ν_{ct}^k = time-varying tract effect

cfpb Consumer Financial
Protection Bureau

Outline

cfpb Consumer Financial
Protection Bureau
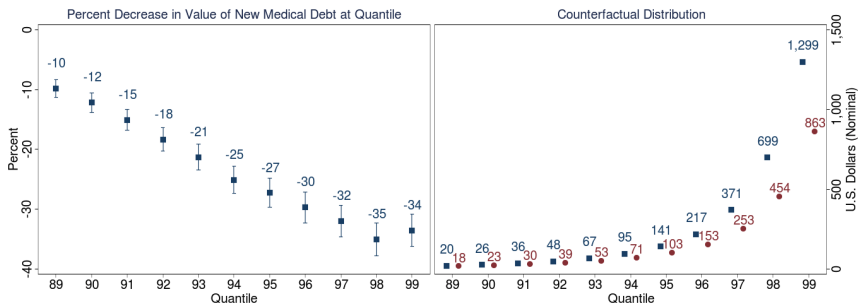
Effect on Medical Debt

Non-Medical Collections

Distributional Effects: Size of Collection
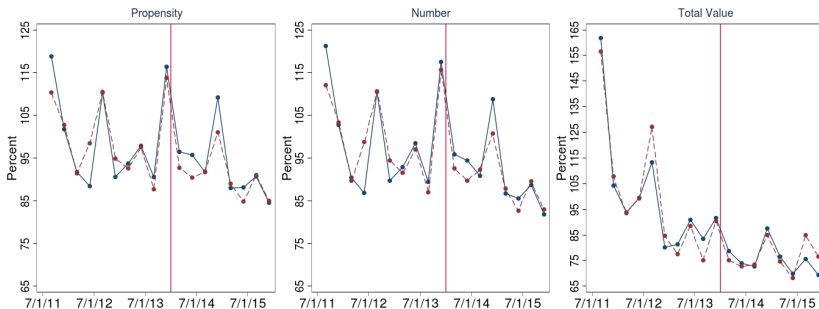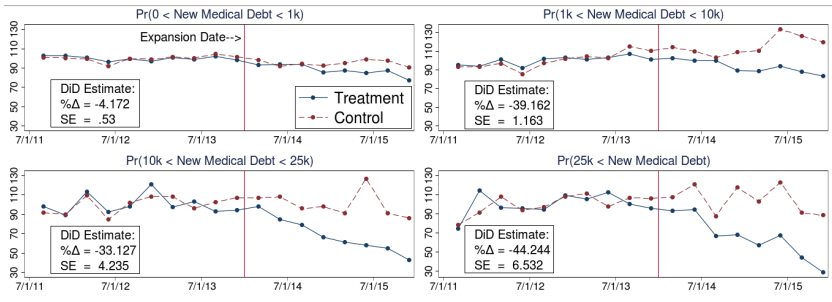
Consumer Financial
Protection Bureau

Distributional Effects: Quantiles

$$log(quantile)_{ct}^q = \alpha_c^q + \eta^q Post + \beta^q (Post \cdot Adopt_{s(c)}) + \nu_c^q + \epsilon_{ct}^q$$
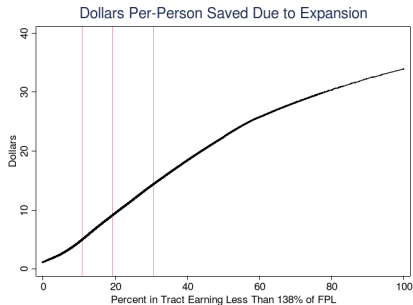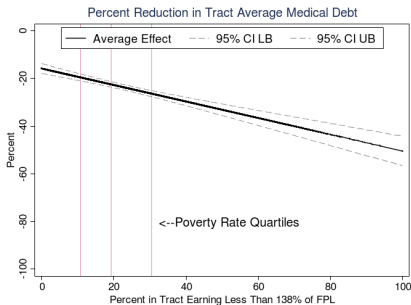
Heterogeneous Effects: Setup

- Medicaid expansion should have directly affected consumers with income levels below 138% FPL
- We conduct census-tract-level analysis based on $Pop138$
- Specification:

$$log(\hat{\mathbb{E}}[M_{it}])_{ct} = \alpha_c + \eta \cdot Post + \delta \cdot Pop138 + \beta(Post \cdot Adopt_{s(c)}) +$$
$$\gamma(Post \cdot Adopt_{s(c)} \cdot Pop138) + \nu_c + {}_{ct}$$

Heterogeneous Effects: Results

Percent Reduction in Tract Average Medical Debt

Dollars Per-Person Saved Due to Expansion

Direct to Consumer Medical Debt Savings

- Our estimates suggest that Medicaid expansion saved

    $10.42 per consumer

    $5.63 billion overall

Table: Direct to Consumer Medical Debt Savings

	All	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
	(1)	(2)	(3)	(4)	(5)
Average ($)	10.42	3.05	6.71	12.03	20.16
Total ($Billions)	5.63	0.49	1.03	1.60	2.51
Tract Population 18-64 (Millions)	58.62	16.40	15.22	13.72	13.29

Notes: This table presents estimates of average per-capita reduction in medical debt and total accrued savings using estimates from equation 7.

cfpb Consumer Financial
Protection Bureau

Outline

cfpb Consumer Financial
Protection Bureau

New Loan Delinquencies

Consumer Financial
Protection Bureau

Bankruptcies

Consumer Financial
Protection Bureau

Heterogeneity Across States
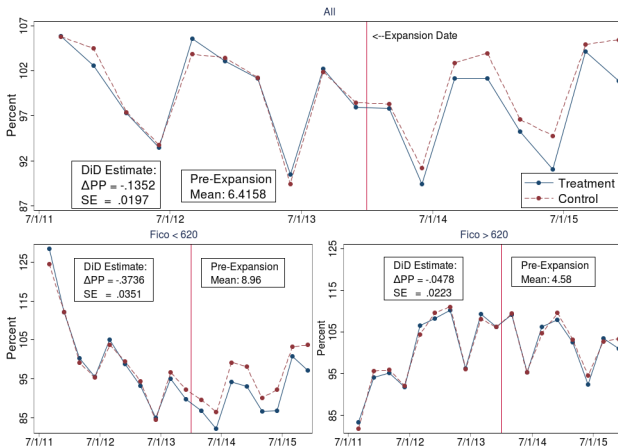
Consumer Financial
Protection Bureau

Outline

1. Introduction

2. Empirical Approach & Data

3. Analysis
   - Medical Debt
   - Delinquency & Bankruptcy
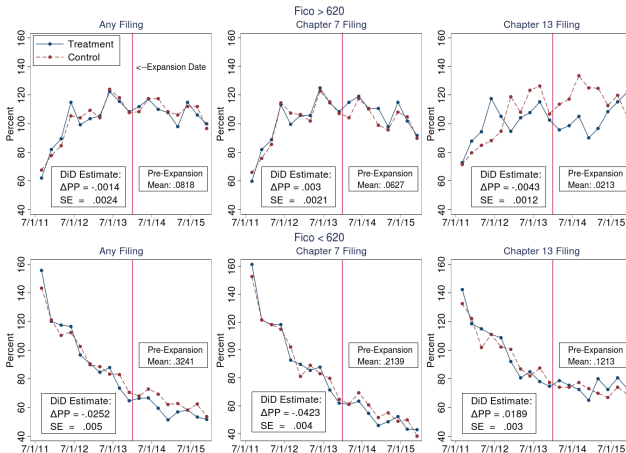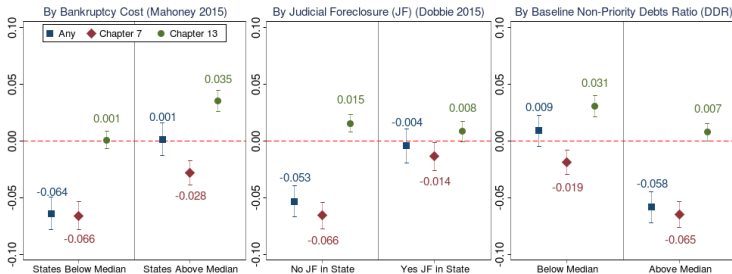   - **Effects of Medical Debt on Financial Distress**

4. Conclusion

cfpb Consumer Financial
Protection Bureau

Instrumental Variable Specification

$$y_{ict}^{j,\tau} = \alpha_c^{j,\tau} + \beta_t^{j,\tau} + \theta^{j,\tau} M_{ict} + \nu_{ct}^{j,\tau} + \epsilon_{ict}^{j,\tau} \qquad (2)$$

- y_{ijt}^k = Outcome measure (j is type, τ subpopulation)
- $\alpha_c^{j,\tau}$, $\beta_t^{j,\tau}$ = Tract- and time-level effects
- M_{ict} = Medical debt
- $\nu_{ct}^{j,\tau}$ = time-varying tract effect

Effects on Financial Distress

Dependent Variable	Any Delinquency		Any Bankruptcy	
	(1)	(2)	(3)	(4)
All Consumers				
Medical Debt ($100's)	0.00419*		0.00005	
	(0.00059)		(0.00007)	
Observations	35,015,257		35,015,275	
By Census Tract Eligibility Rate (% Earning $< 1.38 \times FPL$)				
Medical Debt ($100's)	*Below Median*	*Above Median*	*Below Median*	*Above Median*
	0.00511*	0.00287*	0.00012	0.00000
	(0.00113)	(0.00064)	(0.00014)	(0.00008)
Observations	19,383,842	15,631,415	19,383,842	15,631,415
By Baseline Fico				
Medical Debt ($100's)	*Fico < 620*	*Fico ≥ 620*	*Fico < 620*	*Fico ≥ 620*
	0.0547*	0.00446*	0.00027*	0.00011
	(0.00067)	(0.00197)	(0.00009)	(0.00023)
Observations	15,021,873	15,021,893	15,021,873	15,021,893

cfpb Consumer Financial
Protection Bureau

Effects on Bankruptcy: Subprime (Part 1)

Dependent Variable		Any Bankruptcy (1)	Chapter 7 (2)	Chapter 13 (3)
By State Level Cost of Filing Index (Mahoney 2015)				
Medical Debt ($100's)	*Below*	0.00053*	0.00061*	-0.00008
	Median	(0.00011)	(0.00010)	(0.00005)
Observations		6,992,349	6,992,349	6,992,349
Medical Debt ($100's)	*Above*	0.00001	0.00042*	-0.00049*
	Median	(0.00014)	(0.00011)	(0.00011)
Observations		8,029,524	8,029,524	8,029,524
By Judicial Foreclosure Status (Yes/No) (Dobbie and Song 2015)				
Medical Debt ($100's)	*No*	0.00039*	0.00051*	-0.00015*
		(0.00008)	(0.00007)	(0.00004)
Observations		8,957,960	8,957,960	8,957,960
Medical Debt ($100's)	*Yes*	-0.00011	0.00039	-0.00044
		(0.00036)	(0.00031)	(0.00025)
Observations		6,063,913	6,063,913	6,063,913

cfpb Consumer Financial
Protection Bureau

Effects on Bankruptcy: Subprime (Part 2)

Dependent Variable		Any Bankruptcy (1)	Chapter 7 (2)	Chapter 13 (3)
By Baseline Non-Priority Debts Ratio				
Medical Debt ($100's)	*Below*	-0.00001	0.00036*	-0.00039*
	Median	(0.00011)	(0.00009)	(0.00008)
Observations		7,462,749	7,462,749	7,462,749
Medical Debt ($100's)	*Above*	0.00055*	0.00064*	-0.00013*
	Median	(0.00013)	(0.00012)	(0.00006)
Observations		7,559,039	7,559,039	7,559,039

cfpb Consumer Financial
Protection Bureau

Conclusion

- Expansion of Medicaid significantly reduced medical debt among consumers in adopting states
- Also reduced financial distress faced by consumers