

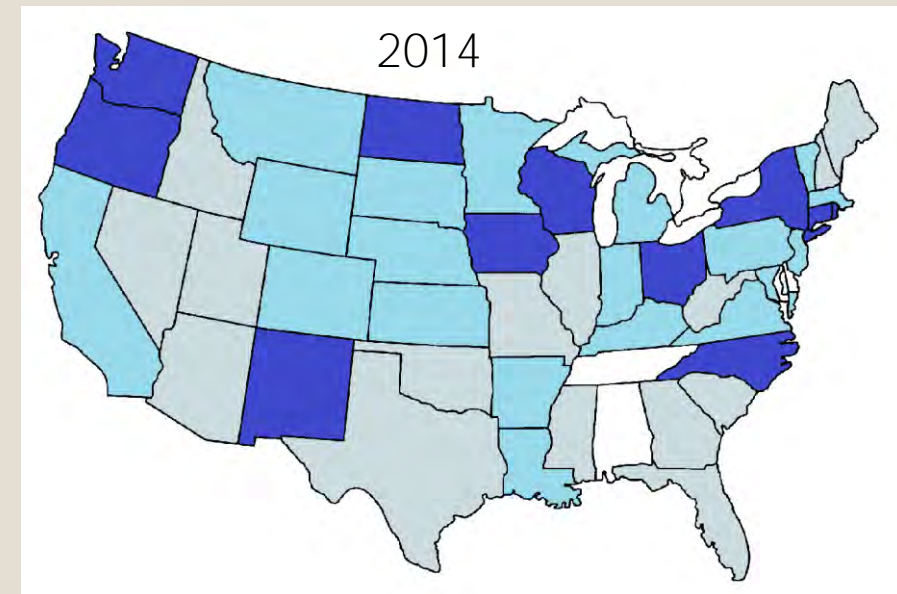
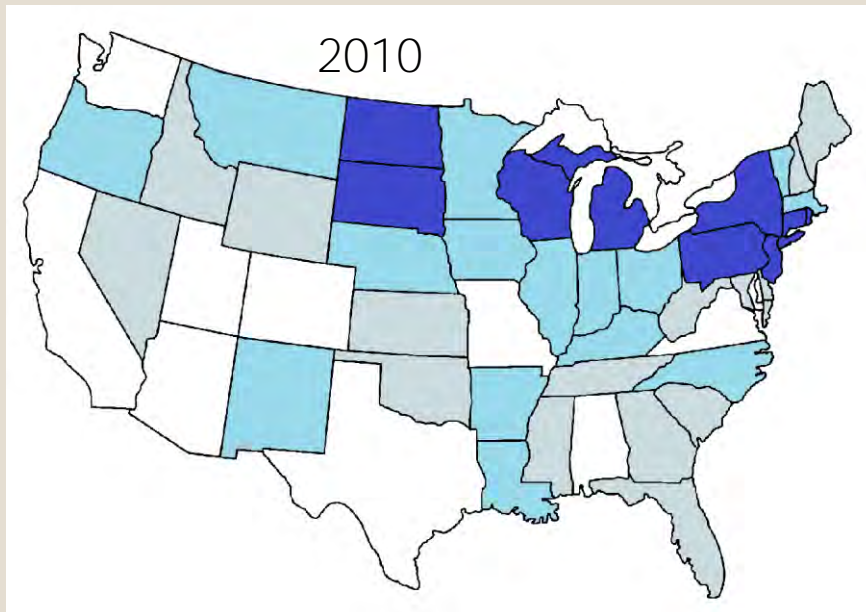


Medicaid Expansion & Adult Dental Benefits: Access to Dental Care among Low-Income Adults

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Medicaid Adult Dental Benefits

- Medicaid Dental Coverage
 - Children: All states cover dental benefits under EPSDT
 - Adults: Optional benefit, states can decide what dental benefits to provide



■ Full Coverage ■ Limited ■ Emergency □ None

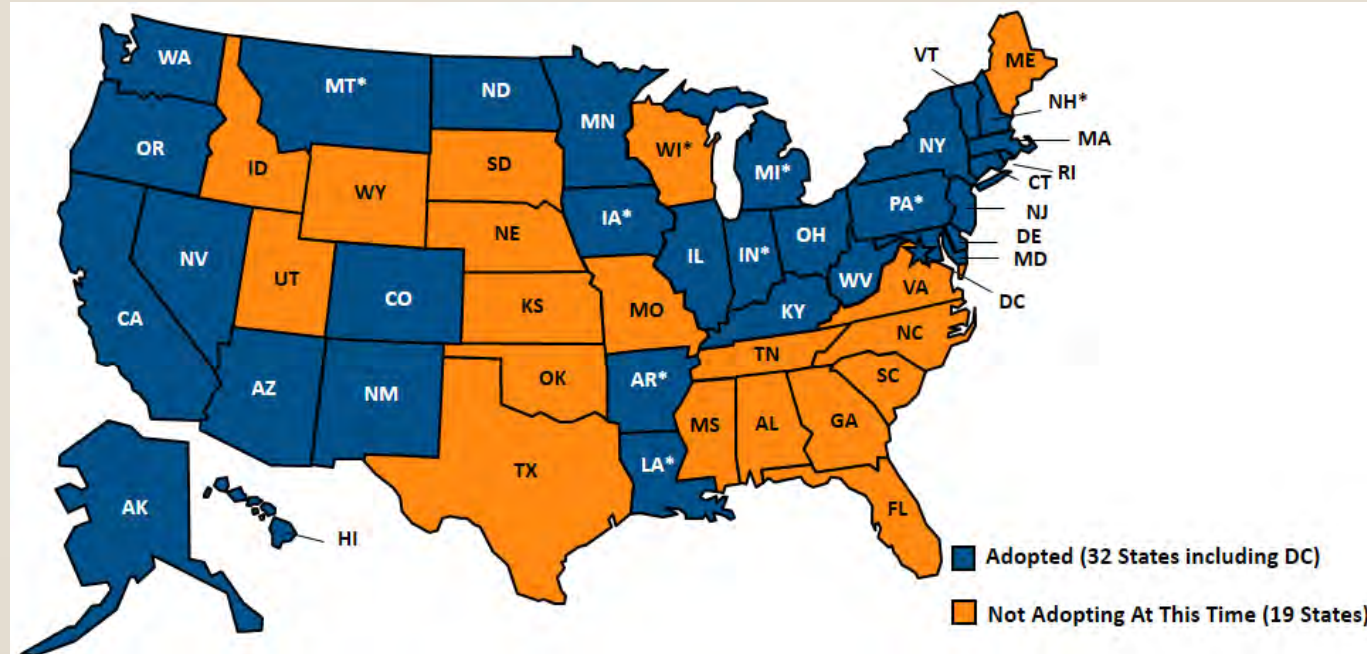
Medicaid Adult Dental Benefits and Access

- States that provide dental benefits to Medicaid adult enrollees:
 - Greater access and utilization of dental services by low-income adults
(Choi, *J Health Econ.* 2011; Lipton, *J Health Econ.* 2015)
 - Lower emergency department use
(Cohen, *JADA.* 2002; Neely, *AJPH,* 2014; Singhal, *Health Aff.* 2015)



ACA: Medicaid Expansion

- Prior to the ACA, low income children and their parents were eligible for Medicaid
- Under the ACA (2010) → Medicaid Expansion → cover everyone under 138% FPL
- Current status of State Medicaid Expansion Decisions:



Source: "Status of State Action on the Medicaid Expansion Decision" KFF State Health Facts, updated March 14, 2016.

Objective

- To examine the impact of state-level variation in Medicaid Adult Dental Benefits (DB) and Medicaid Expansion (ME) on access to dental care among low-income adults.
- For this project, we categorized Medicaid dental benefits into:
 - 0= None or Emergency Dental Services Covered
 - 1= More than Emergency Dental Services Covered
- Medicaid Expansion (0/1)

Hypothesis

- 2 Policies at play:
 - Adult Dental Benefits (DB) → determine dental coverage that facilitates dental access
 - Medicaid Expansion (ME) → Broadens the population to which adult dental benefits policy applies
- Hypothesis: Access to dental care among low-income adults would rank as following:
 - ME=1, DB=1
 - ME=0, DB=1
 - ME=1, DB=0*
 - ME=0, DB=0

Methods: Data Source

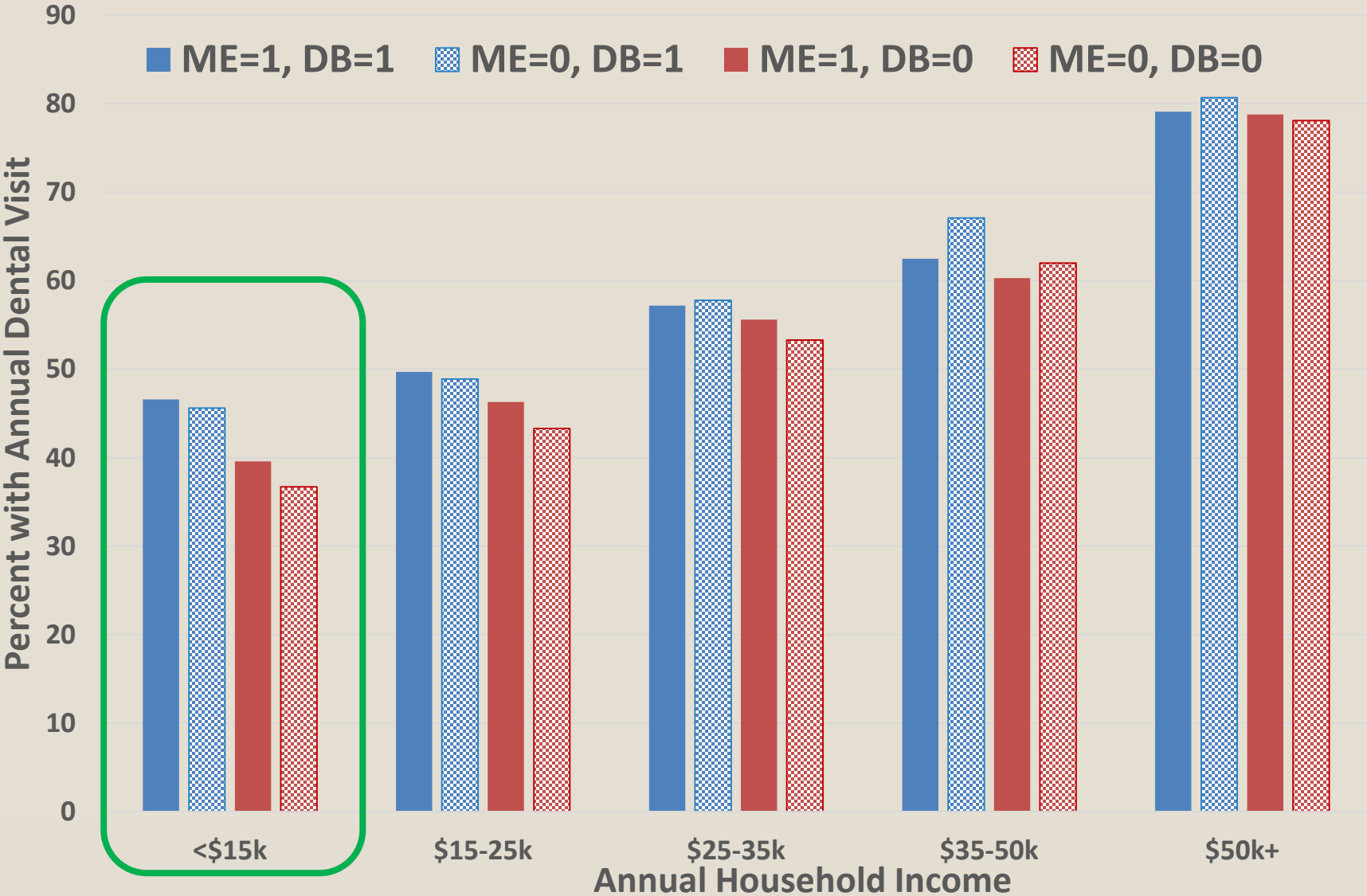


- Behavioral Risk Factor Surveillance System (BRFSS)
 - Telephone-based survey of statewide representative sample of adults
 - All states and territories
 - Oral health module (even years):
 - Time since last dental visit
 - Number of permanent teeth extracted/ lost due to caries
- Medicaid Expansion status, Adult Dental Benefits, effective dates
 - State Medicaid Websites
 - Kaiser Family Foundation
 - MACPAC Report

Analytic Approach

- Study Population → Low-Income (<\$15,000), Non-Elderly Adults (21-64 years)
- Time Period → 2008, 2010, 2012, 2014
- Outcome → Dental Visit in Past 12 months
- Predictor → Medicaid Expansion (ME) & Dental Benefits (DB)*
- Covariates → Age, Sex, Race-Ethnicity, Marital Status, Employment, Education, Year
- Model → Logistic regression with state-fixed effects

Annual Dental Visit by Medicaid Policy and Income



Results:

Annual Dental Visit Full Model without State Fixed Effect		
Less than \$15,000 income		
	Odds Ratio	95% CI
→ ME=1, DB=1	1.66	1.51-1.83
→ ME=0, DB=1	1.41	1.33-1.50
ME=1, DB=0	1.10	0.97-1.24
ME=0, DB=0	1.00 (ref)	

Annual Dental Visit Full Model WITH State Fixed Effect		
Less than \$15,000 income		
	Odds Ratio	95% CI
ME=1, DB=1	1.05	0.90-1.22
ME=0, DB=1	1.09	0.96-1.24
ME=1, DB=0	0.82	0.71-0.94
ME=0, DB=0	1.00 (ref)	

Conclusions

- Dental benefits for Medicaid adults improves access to dental care among low-income adults, however, these differences diminish after accounting for state characteristics.
- In short-term, Medicaid expansion without adult dental benefits leads to lower access to dental care
 - Possibly due to supply-side constraints
 - New enrollees possibly had no insurance prior to expansion and were likely non-utilizers of health care system
 - New enrollees may access temporary relief for dental problems from medical providers/ ERs

Results: Early Expansion States Only

Annual Dental Visit Full Model WITH State Fixed Effect (CA, CT, MN, DC)		
	Less than \$15,000 income	
	Odds Ratio	95% CI
ME=1, DB=1	1.26	0.77-2.07
ME=0, DB=1	1.96	1.04-3.69
ME=1, DB=0	0.91	0.56-1.48
ME=0, DB=0	1.00 (ref)	

Limitations

- Population: self-reported income categories → Medicaid enrollees
- All adults with <\$15,000 annual income may not be eligible for Medicaid → underestimating the impact of the policies on access to dental care
- Pre-ACA variability in states' Medicaid eligibility and programs
- Variability in dental coverage provided by state Medicaid programs
- Only 1 year since most states expanded Medicaid
- Policy precedes the outcome?
 - Policy determination preceded the interview
 - Outcome → Dental visit in past 12 months

Next Steps

- Sensitivity Analyses:
 - Exclude North Dakota
 - Examine only early expansion states
 - Examine only 2014 data, and exclude states with early expansion
- Compare the outcomes across state policy variations among parents and childless adults separately
- Other independent variables: Dentist participation with Medicaid, Dental HPSAs, Reimbursement rates
- Use MAX data to assess access to dental care
 - Complete picture
 - Exact population of interest
 - Exact date of service

Acknowledgments

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Questions?

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Results:

Full Model without State Fixed Effect				
	Less than \$15,000 income		Less than \$25,000 income	
	Odds Ratio	95% CI	Odds Ratio	95% CI
→ ME=1, DB=1	1.66	1.51-1.83	1.54	1.44-1.63
→ ME=0, DB=1	1.41	1.33-1.50	1.30	1.25-1.35
→ ME=1, DB=0	1.10	0.97-1.24	1.13	1.05-1.23
ME=0, DB=0	1.00 (ref)		1.00 (ref)	

Full Model WITH State Fixed Effect				
	Less than \$15,000 income		Less than \$25,000 income	
	Odds Ratio	95% CI	Odds Ratio	95% CI
ME=1, DB=1	1.05	0.90-1.22	1.03	0.93-1.14
ME=1, DB=0	0.82	0.71-0.94	0.91	0.83-0.99
ME=0, DB=1	1.09	0.96-1.24	1.02	0.94-1.11
ME=0, DB=0	1.00 (ref)		1.00 (ref)	

Results: Early Expansion States Only

Full Model WITH State Fixed Effect (CA, CT, MN, DC)				
	Less than \$15,000 income		Less than \$25,000 income	
	Odds Ratio	95% CI	Odds Ratio	95% CI
ME=1, DB=1	1.26	0.77-2.07	1.15	0.83-1.59
ME=1, DB=0	0.91	0.56-1.48	0.96	0.69-1.34
ME=0, DB=1	1.96	1.04-3.69	1.45	1.03-2.06
ME=0, DB=0	1.00 (ref)		1.00 (ref)	

		< \$15k		<\$25k	
		OR	95%CI	OR	95%CI
Group					
1	ME=1, DB=1	1.05	0.90-1.22	1.03	0.93-1.14
2	ME=1, DB=0	0.82	0.71-0.94	0.91	0.83-0.99
3	ME=0, DB=1	1.09	0.96-1.24	1.02	0.94-1.11
4	ME=0, DB=0	1.00		1.00	
Year					
	2008	1.06	0.97-1.17	1.11	1.04-1.18
	2010	0.98	0.90-1.07	1.01	0.95-1.06
	2012	1.04	0.96-1.12	1.06	1.01-1.12
	2014	1.00		1.00	
Sex					
	Males	0.76	0.72-0.80	0.74	0.71-0.76
	Females	1.00		1.00	
Age Group					
	21-24	1.00		1.00	
	25-34	0.77	0.69-0.85	0.80	0.75-0.86
	35-44	0.67	0.60-0.74	0.74	0.69-0.79
	45-54	0.68	0.61-0.74	0.72	0.68-0.77
	55-64	0.63	0.57-0.69	0.74	0.69-0.79
Race-Ethnicity					
	Hispanic	1.11	1.03-1.21	1.12	1.07-1.18
	NH Other	1.04	0.94-1.16	0.99	0.92-1.06
	NH Black	1.10	1.03-1.18	1.10	1.05-1.15
	NH White	1.00		1.00	
Married					
	Yes	1.04	0.98-1.11	1.12	1.08-1.16
	No	1.00		1.00	
Employment					
	For Wages	0.99	0.93-1.06	1.06	1.02-1.10
	Self-employed	0.97	0.87-1.08	0.99	0.93-1.06
	Retired	1.05	0.93-1.19	1.31	1.22-1.40
	Others	1.00		1.00	
Education					