Impact of Dual-Eligible Special Need Plan Regulations on Care Utilization

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Timeline of Public Insurance for the Low Income Elderly

1960

Kerr-Mills Act

1965

Medicare

&

Medicaid

2003

Dual-Eligible Special Needs Plans (D-SNPs) Authorized

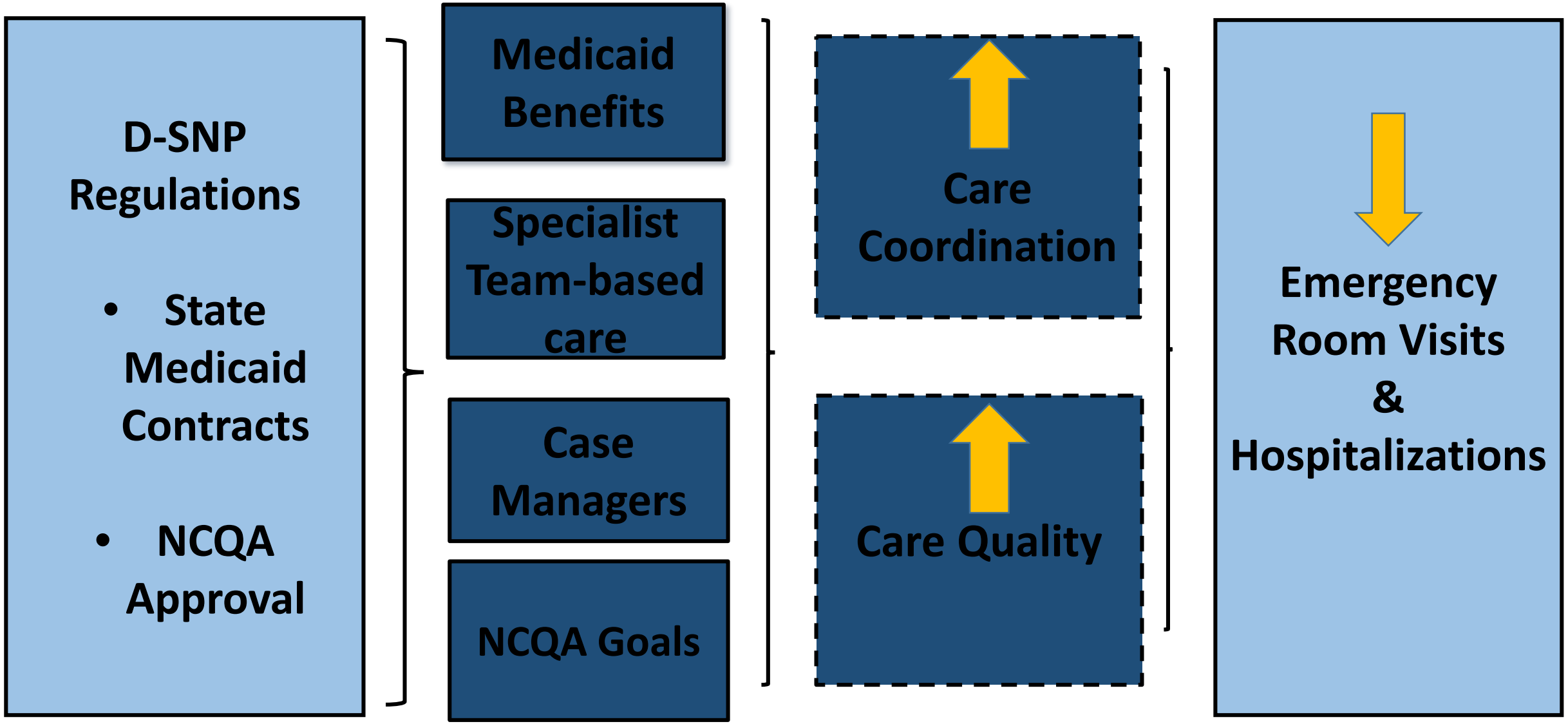
2012

D-SNPs need

1. State contracts

2. NCQA Approval

Conceptual Model for the Potential Impact of Impact of D-SNP Regulations on Health Care Utilization

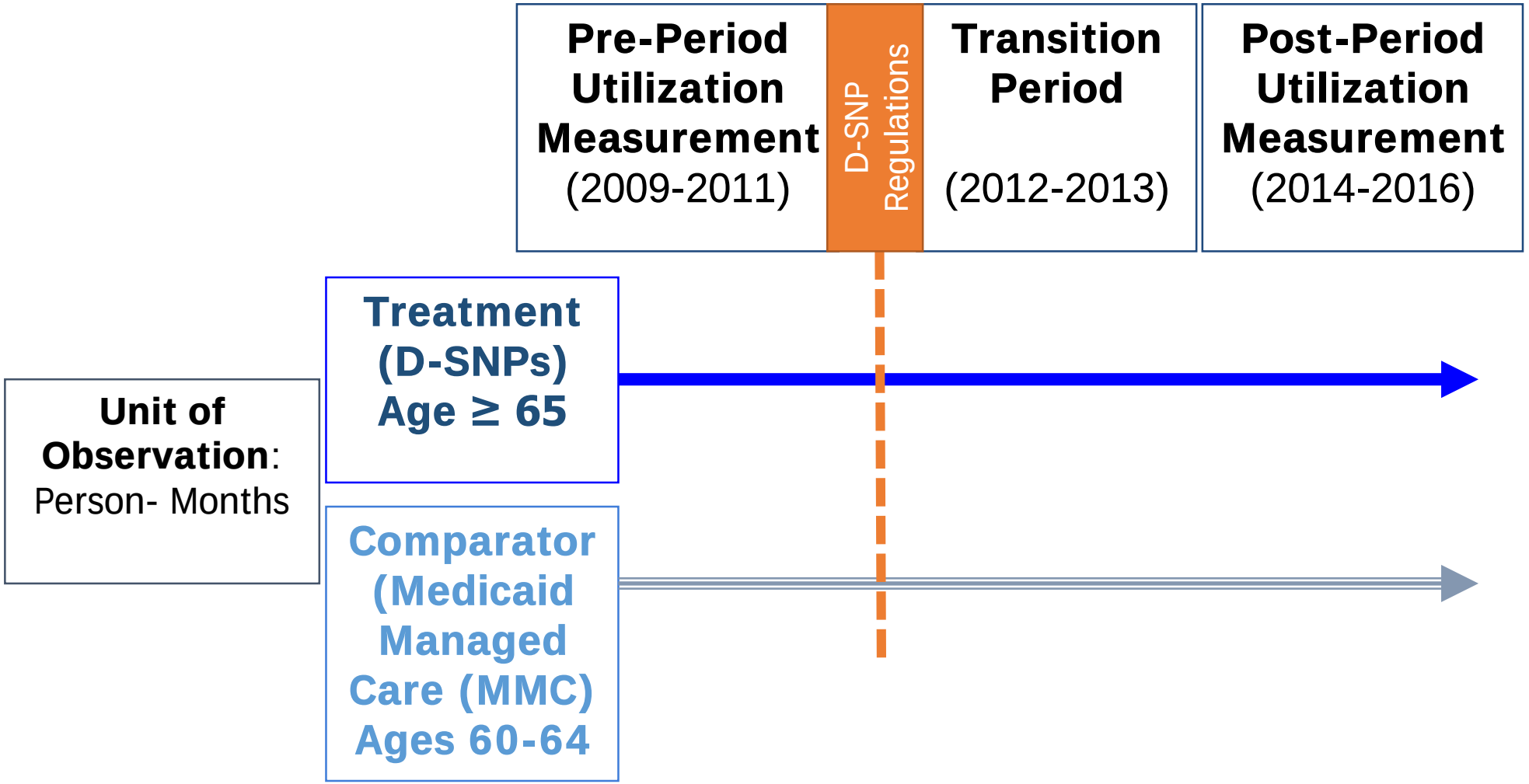


Research Objectives

- To determine the impact of D-SNP regulations on emergency room visits and hospitalizations

- To determine if there is variation in effects by racial group (white vs. black)

Study Design: Multiple Interrupted Time Series



D-SNP Regulations impact=$(\text{D-SNP}_{\text{Post}}-\text{DSNP}_{\text{Pre}})-(\text{MMC}_{\text{Post}}-\text{MMC}_{\text{Pre}})$

Data Source & Primary Predictors

- **Data Source:** Beneficiary eligibility/demographic data and medical claims from a convenience sample of 3 states **(**Arizona, New Jersey, Tennessee), from one of the largest insurers in the U.S.

- **Primary Predictors:**
  - Variable that captures immediate change in utilization due to D-SNP regulations (level change)
  - Variable that captures gradual change in utilization over time due to D-SNP regulations (slope change)

Outcomes

- **Outcomes:** person-months
  - **Emergency room visit**: An indicator coded as “1” if any emergency room visits in a given month
  - **Hospitalization**: An indicator coded as “1” if any hospitalization days in a given month

Covariates

- **Demographics**-Gender, Age & Race (total population models)
- **Physical Health**-Hypertension, Hyperlipidemia, Diabetes, Heart Attack, Congestive Heart Failure, Stroke, Atrial Fibrillation, Chronic Kidney Disease, COPD, Asthma, Liver Disease, Cancer, HIV & Arthritis, Supplemental Security Income
- **Cognitive/Behavioral Health**-Dementia, Depression, Schizophrenia & Substance Abuse

Statistical Analysis

- **Statistical Model:** Linear Regression models used with dichotomous outcomes (Linear Probability Models) with standard errors adjusted for within person clustering of months

- Models run for the entire population and separately for each racial group (black and white)

Demographic and Clinical Characteristics of D-SNP and Medicaid Managed Care Enrollees, Averaged Over the Pre-Period (2009-2011)

	D-SNP	Medicaid Managed Care
Person-months	246,709	343,229
Mean (IQR) or N (%)		
Black	4,864(13)	33,220 (35)
Age	73(67-77)	62 (61-63)
Female	25,407(70)	53,766 (56)
Comorbidity count	0.8 (0,1)	0.9 (0,1)
Any ER visit	1,208 (3.3)	5,486 (5.7)
Any Hospitalization	730(2.0)	2,663 (2.8)

Change in Predicted Utilization for D-SNP vs. Medicaid Managed Care Enrollees at Midpoint of Post Implementation Period (July, 2015)

	D-SNP	Medicaid Managed Care	
Outcomes	**Post-Pre Difference**	**Post-Pre Difference**	**D-SNP Regulation Effects**
	A	**B**	**A-B**
ER Visits (Total)	-0.3%	-0.4%	0.1%
Hospitalizations (Total)	-1.2%	-1.3%	0.1%
ER Visits (Whites)	-0.5%	-0.7%	0.2%
Hospitalizations (Whites)	-2.0%	-1.1%	-0.9%
ER Visits (Blacks)	0.5%	0.2%	0.3%
Hospitalizations (Blacks)	-1.5%	-2.0%	0.5%

***No statistically significant findings**

Limitations

- **Comparison Group**
  - D-SNP regulations may have impacted the comparison group (same provider networks)
- **Data from one insurer**
  - D-SNP regulations may have more benefit among plans with worse baseline performance
- **Data from 3 states (AZ, TN, NJ)**
  - Blacks concentrated in south central and south eastern states

Conclusion

- No significant impacts of D-SNP regulations when compared to utilization changes among near elderly Medicaid Managed Care beneficiaries

- Need studies using dual-eligibles enrolled in Medicare fee-for-service as comparison group

Next Steps

- **Examine the impact of D-SNPs on ER visits and hospitalizations, and health status across racial groups, using Medicare Current Beneficiary Survey (MCBS)**

- **MCBS data has several beneficial features for this analysis**

  - Nationally representative

  - Has dual-eligibles enrolled in fee-for-service Medicare and D-SNPs

  - Several measures of health status

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Study Population Demographics Stratified by Pre-Post Time Period and Race

	Pre		Post	
	White	**Black**	**White**	**Black**
N (%) or Mean (Interquartile Range)	18,014 (23.81)	4,864(12.77)	82,676(46.08)	17,890(27.99)
Age	64 (61-64)	63 (61-64)	67(62-70)	64(61-66)
Female	45,786 (60.51)	21,383(56.15)	102,384(57.06)	33,841(52.95)
State of residence				
Arizona	24,048 (31.78)	3,383 (8.88)	93,988 (52.38)	8,034 (12.57)
New Jersey	6,257(8.27)	6,666(17.50)	9,756 (5.44)	13,596 (21.27)
Tennessee	45,365(59.95)	28,035(73.61)	75,676(42.18)	42,280 (66.16)
Medicaid category				
TANF	3,790 (5.01)	1,587(4.17)	12,577 (7.01)	3,512 (5.50)
SSI	53,866 (71.19)	31,633(83.06)	84,167(46.91)	42,508(66.51)
Dually Eligible	18,014(23.81)	4,864(12.77)	82,676(46.08)	17,890 (27.99)
ER visit rate	3,873(5.12)	2,219(5.83)	10,774(6.00)	4,901(7.67)
Hospitalization rate	1,899(2.51)	2,219(5.83)	4,124(2.30)	1,615(2.53)