

## Do Interruptions in Medicaid Coverage Increase the Risk of Preventable Hospitalizations?

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## Medicaid Population

- More than half of Medicaid beneficiaries nationwide have interruptions in coverage
- Individuals with interrupted Medicaid coverage are less likely to receive primary and preventive care services
- Medicaid beneficiaries who lose coverage may regain it when hospitalized

## Medicaid Re-Enrollment Policies

- Federal law requires a minimum of re-enrollment every 12 months
- States may pursue a more aggressive re-enrollment policy to reduce the number of covered individuals
- In 2001 California extended its lock in period for children from 6 to 12 months

## Study Questions

- Do interruptions in Medicaid enrollment increase the risk for hospitalizations for ambulatory care sensitive conditions?
- Was the extension of a Medicaid lock in period for children in California associated with a decrease in hospitalizations for ambulatory care sensitive conditions?

## Ambulatory Care Sensitive Conditions: AHRQ Prevention Quality Indicators

1. Condition with acute course and window for intervention
2. Condition with chronic course amenable to self-management

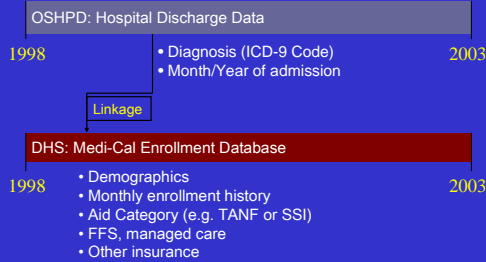
### ACS Conditions

Acute Conditions:	Chronic Conditions:
– Dehydration	– Asthma
– Ruptured Appendicitis	– Hypertension
– Cellulitis	– COPD
– Bacterial Pneumonia	– Diabetes Mellitus
– Urinary Tract Infection	– Heart Failure
	– Angina

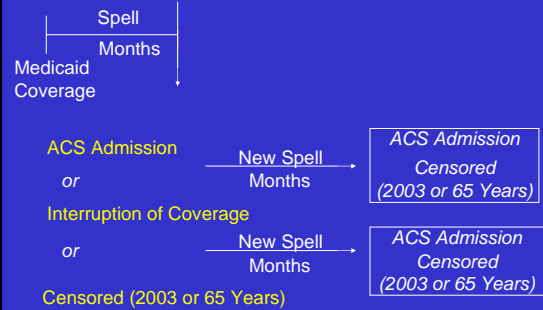
## Study Design

- All individuals 1-64 years with at least 1 month of Medicaid coverage Jan 1998 to December 2002
- Outcome  
Time to a hospital admission for an ambulatory care sensitive condition
- Main predictor  
Continuous or interrupted Medicaid coverage between enrollment and time of admission
- Covariates  
Age, sex, race/ethnicity, Medicaid aid category, managed care, other insurance, year of enrollment

## Linked CA Hospital Discharge and Medicaid Eligibility Files



## Survival Analysis of Medicaid Coverage and Interruption Spells on ACS Hospitalizations



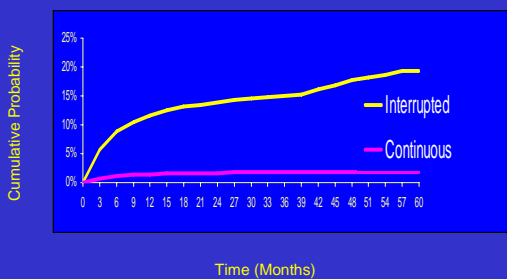
## Pre/Post Study of Re-Enrollment Policy Change for Children

- Children 1-17 years with a minimum of 1 month of Medicaid coverage in California
- Outcome = time to a hospital admission for an ambulatory care sensitive condition
- Main predictor = time period
  - Pre lock in extension = Jan 1998 to December 2000
  - Post lock in extension = Jan 2001 and December 2002
- Covariates  
Age, sex, race/ethnicity, Medicaid aid category, managed care, other insurance, year of enrollment

## CA Medicaid Population: 1998-2002

	Interrupted Coverage	Continuous Coverage
N	5,289,687 (62%)	3,252,319 (38%)
Mean Age (yrs)	21	22
% Female	59	56
Race/Ethnicity (%)		
Hispanic	51	47
Black	10	13
Asian	7	11
White	5	4
Other	27	24
Aid Group (%)		
TANF	33	46
SSI	5	16
Other	62	38
Managed Care (%)	23	25
Other Insurance (%)	8	11

## Probability of ACS Hospitalization Over Time by Medicaid Coverage Status



## Adjusted Risk of ACS Hospitalization

Beneficiary Demographics	Relative Hazard	P-value
Interrupted Coverage	3.72	<.0001
Age	1.04	<.0001
Female	0.98	<.0001
Race/Ethnicity		
Hispanic	2.32	<.0001
Black	4.23	<.0001
Asian	0.87	<.0001
Other	2.59	<.0001
Eligibility		
TANF	0.83	<.0001
SSI	6.69	<.0001
Managed Care	1.02	0.0148
Other Coverage	1.07	<.0001

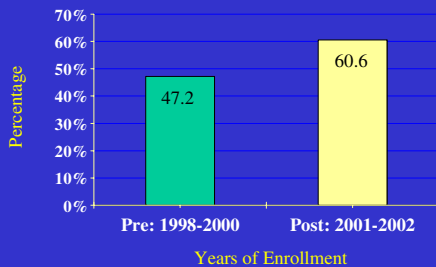
## Re-Gaining Medicaid Coverage

- 6% (11,235/194,653) of ACS hospitalizations among previous Medicaid beneficiaries who were uninsured at time of admission
- Approximately a quarter of that group regained Medicaid on the basis of the ACS admission

## Children 1-17 Years in California Medicaid Before and After Extended Enrollment Lock-In

	1998-2000	2001-2002
N	3,787,815	3,289,555
Mean Age (yrs)	8	8
% Female	50	51
Ethnicity (%)		
Hispanic	53	55
Black	12	12
Asian	8	9
Other	26	24
Aid Group (%)		
TANF	49	52
SSI	3	3
Other	49	45
Managed Care (%)	34	32
Other Insurance (%)	6	6

## Children with Continuous Medicaid Enrollment by Time Period



## Children: Adjusted Risk of ACS Hospitalization

	Relative Hazard	P-Value
Post Lock-In	0.75	<.0001
Age	0.90	<.0001
Female	0.97	0.0162
Ethnicity		
Hispanic	3.23	<.0001
Black	4.82	<.0001
Asian	1.10	0.0167
Other	2.76	<.0001
Aid Group		
TANF	1.43	<.0001
SSI	24.5	<.0001
Other	1.43	<.0001
Managed Care	0.68	<.0001
Other Insurance	1.08	0.0012

## Limitations

- Do not have measures of disease prevalence or health status differences between those with continuous versus interrupted Medicaid coverage
- Limited information on the subsequent health insurance status of those with interrupted Medicaid coverage

## Summary of Findings

- > 60% of California Medicaid population had an interruption of Medicaid coverage
- Medicaid beneficiaries with interruptions in coverage experience negative health consequences and approximately four-fold increased risk of ACS hospitalizations
- Extending the enrollment lock in period from 6-12 months is associated with a decrease in interrupted Medicaid coverage and ACS hospitalizations

## Policy Implications

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- States need to become more aware of the hidden costs in their Medicaid eligibility policies
- Continuity of Medicaid coverage can support better health and decrease wasteful spending on hospitalizations that could have been avoided with less costly outpatient care