

North Carolina Public Health Practice-Based Research Network-
RACE 69499

Product Type: Meeting and Conference Presentation

Presenter Name(s): Marisa Domino

Presenter Affiliations: UNC

Title of Presentation: How sensitive are local health departments to funding cuts? An application to maternal care services.

Meeting: ASHEcon

Sponsor Organization: American Society for Health Economists
biennial meeting

Date: June 12, 2012

Location: Minneapolis, Minnesota

How sensitive
are local
health
departments
to funding
cuts?
An
application to
maternal care
services.



2



Presentation at ASHEcon, 2012

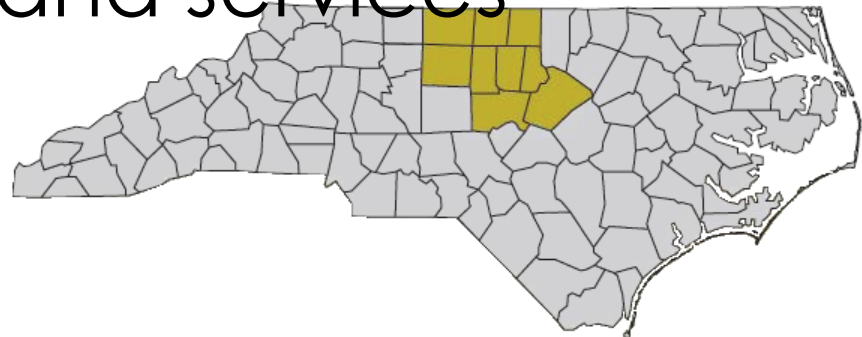
Minneapolis, Minn.

**Funding from the Robert Wood Johnson
Foundation and HRSA gratefully acknowledged.**

North Carolina Public Health Practice-Based Research Network:

- Identify key practice-focused research questions
- Conduct collaborative research projects
- Share the results to improve public health systems and services

**Central North Carolina
Partnership for Public Health**



Study Team Members:

UNC

- Rebecca Wells, PhD
- Dorothy Cilenti, DrPH
- Marisa Domino, PhD
- Hye-Chung Kum, PhD
- Ravi Goyal, MS

NC State Center for Health Statistics

- Timothy Whitmire PhD

Orange County Health Department

- Rosemary Summers, DrPH

Context

- Maternity Care Coordination (MCC) is a formal case management approach provided to women during and after pregnancy to improve birth outcomes.
- MCC consists of outreach, assessment of strengths and needs, service planning, coordination and referral, follow-up and monitoring, and education and counseling.

Context

- Medicaid eligible women can receive MCC services, including:
 - Fully Medicaid eligible pregnant women
 - Women receiving Medicaid benefits for pregnancy-related services only (“pregnancy waiver”)
- MCC can be provided through LHDs, FQHCs/RHCs, and private providers
 - In practice, >98% of women receiving MCC services received them from LHDs

Timeline

- MCC services were offered on a FFS basis in NC in the late 1980s
- In Oct, 2009, Medicaid reimbursement for maternity and child service coordination cut by 19%

Objectives

- To estimate the elasticity of supply of MCC services to changes in MCC funding
- To estimate whether there were off-setting increases in the use of other services if MCC use decreased substantially

Methods

- Effect of budget cuts on MCC receipt was estimated through a series of logit models examining any receipt
 - Any MCC, regardless of timing (pregnancy/post-partum period)
 - Any MCC in each trimester, conditional on Medicaid enrollment
- Zero truncated negative binomial models on the number of MCC units, conditional on receipt
 - Count of MCC units overall, and each trimester, conditional on Medicaid enrollment and MCC receipt

Methods

- Key variable: the proportion of pregnancy “exposed” to lower fee rate
- Control for Mother’s age (quadratic), race, mental health and substance abuse diagnoses in Medicaid

Sample

- 8000 randomly selected Medicaid-covered live births from 10/1/2008 – 10/1/2010, 1 year pre/post the funding change
- Excluded births covered by emergency Medicaid, or with no Medicaid/Waiver eligibility during pregnancy
- Of the remaining 7415 deliveries:
 - 3696 (49.8%) occurred prior to the budget cuts
 - 2734 (36.9%) occurred within 9 months of the budget cuts (“partially exposed”)
 - 985 (13.3%) occurred at least 9 months after the budget cuts
- 2278 (30.7%) of the women received any MCC services during pregnancy or postpartum period

Characteristics by MCC status

	MCC Recipient	Not MCC Recipient
Age	23.6 (5.3)	25.9 (5.7)
Black	44.5%	29.0%
Unknown race	6.2%	19.8%
Any mental health dx	19.5%	13.2%
Any substance abuse/use dx	29.8%	20.7%

MCC and Related Service Receipt

	MCC Recipient	Not MCC Recipient
Number of MCC Units	28.4 (16.0)	0
1 st trimester (n=1731)	4.4 (4.3)	0
2 nd trimester (n=2132)	8.3 (6.0)	0
3 rd trimester (n=2211)	11.4 (7.7)	0
OB visits	20.4 (15.6)	14.3 (14.0)
OB visits in LHDs	4.5 (6.0)	1.2 (3.2)
PCP visits	5.3 (5.6)	2.2 (3.9)

Results: MCC Receipt

	Average Marginal Effect of Exposure on Any Receipt (p-value)	Average Marginal Effect of Exposure on MCC Units, conditional on Receipt (p-value)
Any MCC receipt	-0.0080 (0.551)	1.43 (0.134)
MCC in 1 st trimester	-0.022 (0.127)	0.31 (0.237)
MCC in 2 nd trimester	-0.00029 (0.983)	0.54* (0.091)
MCC in 3 rd trimester	-0.0058 (0.670)	0.54 (0.191)

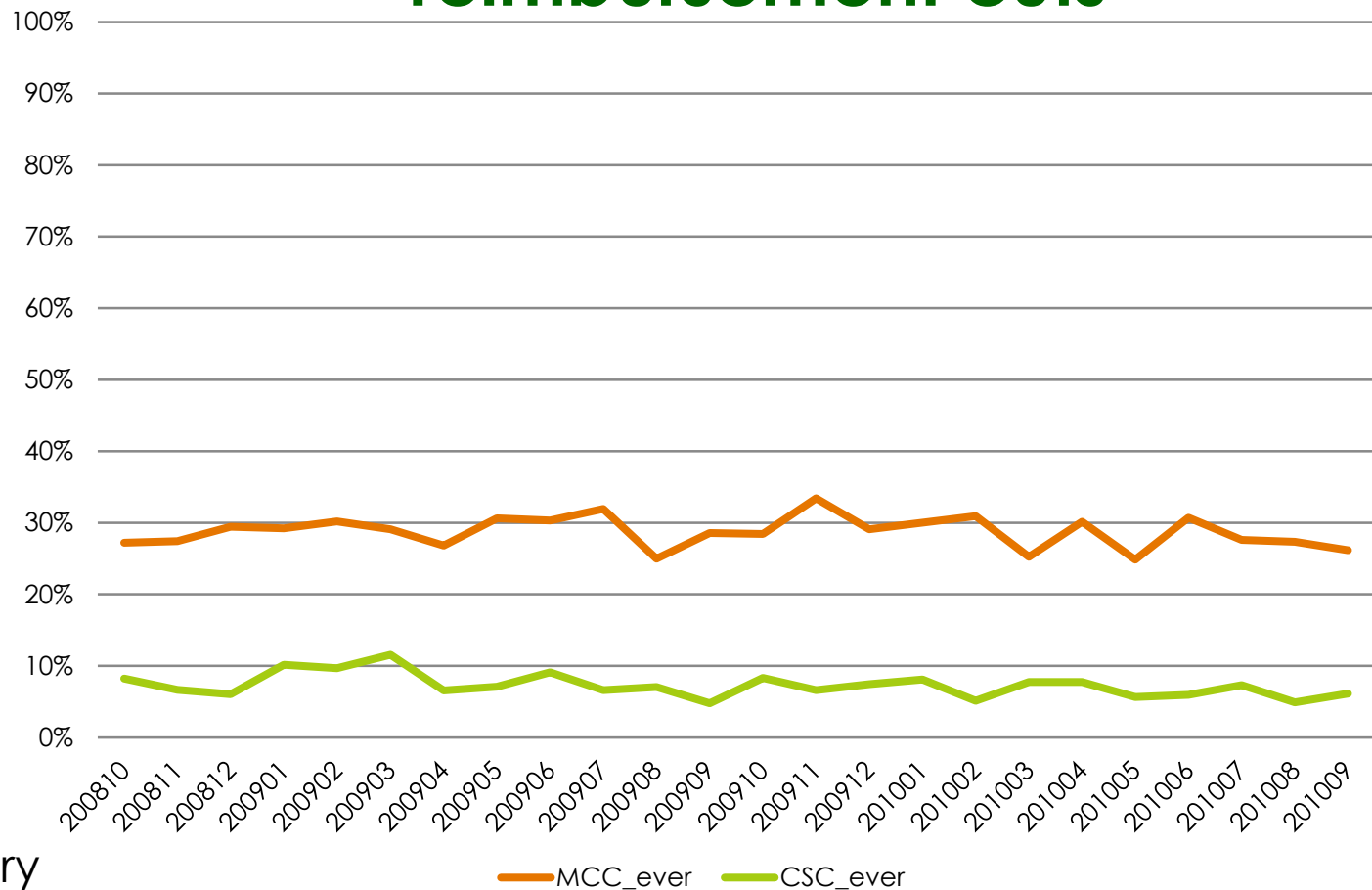
Conclusions

- Budget cuts resulted in no notable change in MCC receipt
 - Estimated elasticity of supply of zero
- Other limiting factors in the market for MCC services?
- Other compensating sources of funding?

Additional slides on time trends

Medicaid claims:

Proportions of mothers and infants enrolled in care coordination before and after reimbursement cuts



Preliminary statistics

Medicaid claims: Amount of Maternity Care Coordination per woman before and after reimbursement cuts

MCC Units

