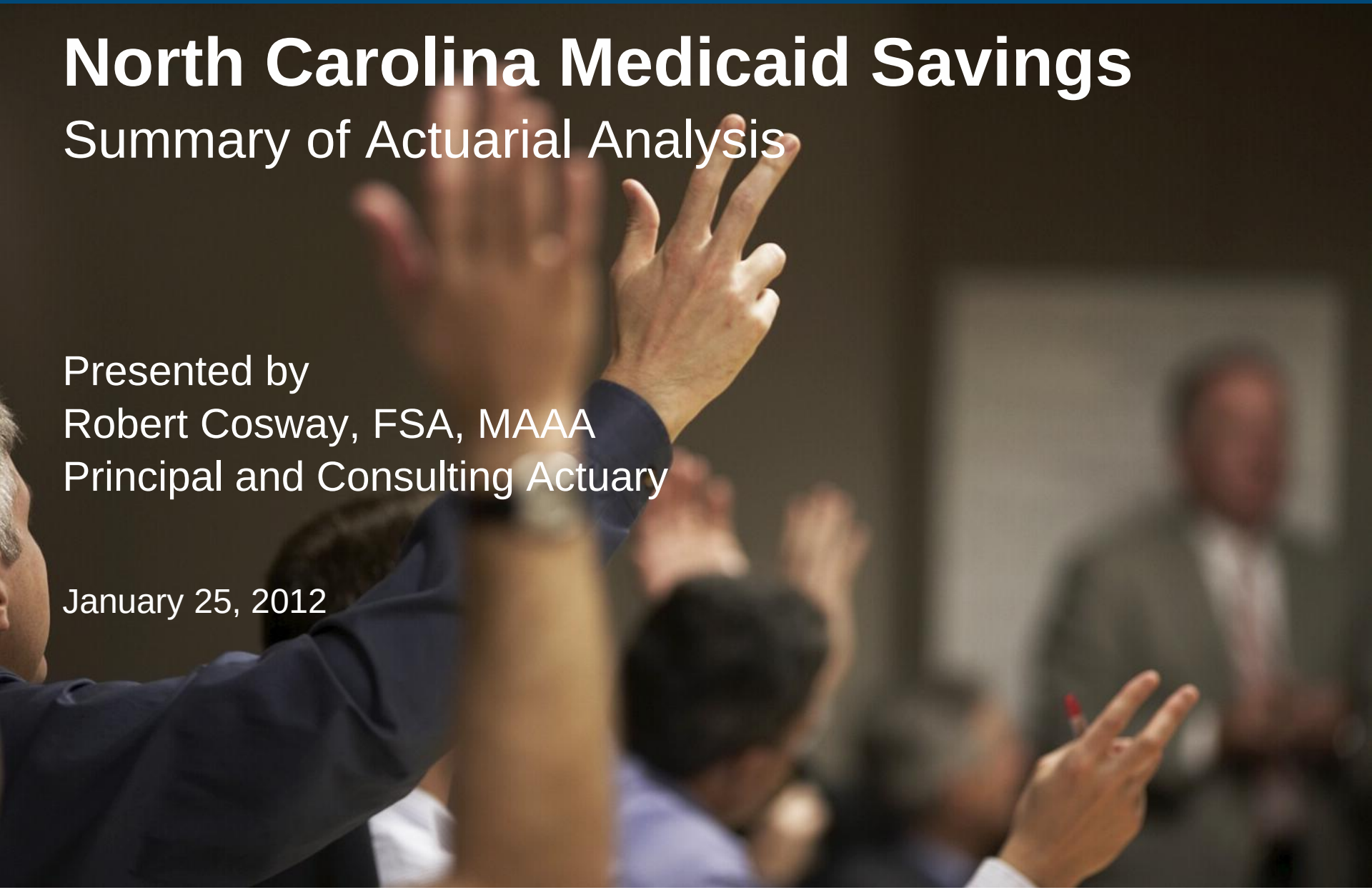
North Carolina Medicaid Savings

Summary of Actuarial Analysis



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Overview

Milliman estimated the cost savings achieved by CCNC networks for the Division of Medical Assistance (DMA) during state fiscal years 2007 to 2010.

Milliman's actuarial estimates place the fiscal year 2010 savings net of PMPMs paid to the CCNC networks at $382 million.

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Populations Studied

- We divided the Medicaid population into these eligibility groups:
  - Aged, blind and disabled (ABD) Medicaid only
  - Aged, blind and disabled (ABD) dual eligibles
  - Children age 20 and under (excluding ABD)
  - Adults (excluding ABD)

- The eligibility groups were chosen for comparability and compatibility of the populations for actuarial analysis.

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Data Used

- We used the following data:
  - Detailed medical and pharmacy claims
  - Beneficiary data
  - Clinical Risk Grouping (CRG) risk scores for each beneficiary

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Challenges Estimating the Impact of Care Management

- The intent of care management is to change the behavior of providers and patients. We know the utilization and cost for members receiving care management, but we cannot observe what would have happened if those same members had not received care management.

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Methods Used

- Three methods used:
  1. Compare costs per member for CCNC and non-CCNC members
  2. Compare trends in costs per member to external trend estimates
  3. Compare an individual's health costs in the 12 months before and after CCNC enrollment

- Cost savings estimates were calculated using Method 1.

- All three methods relied on risk adjustment, done using CRGs.

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Comparison of CCNC to Non-CCNC Costs

North Carolina Division of Medical Assistance
Comparison of CCNC and Non-CCNC PMPM Costs
Method 1 Summary Results
Risk-Adjusted Medical and Management PMPM Costs in FY2010

Eligibility Category	CCNC Average Members per Month	Non-CCNC Average Members per Month	Total Average Members per Month	CCNC PMPM Costs	Non-CCNC PMPM Costs	CCNC as a Percentage of Non-CCNC PMPM Costs
ABD Medicaid Only	103,844	56,786	160,629	$1,247.82	$1,289.95	96.7%
ABD Dual Eligibles	51,240	130,631	181,871	$567.04	$556.76	101.8%
Children age 20 and under (excluding ABD)	633,967	122,168	756,136	$185.15	$218.09	84.9%
Adults (excluding ABD)	103,357	51,300	154,657	$441.05	$518.61	85.0%

(1) Duals are not adjusted for changes in health status differences because risk scores were not provided by TREO. Given that Medicare is the primary payer for the dual eligibles, the Medicaid claims system does not have complete claims history for dual eligible members, with which to calculate risk scores.

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Estimated Cost Savings

North Carolina Division of Medical Assistance
Estimated Cost Savings Calculated Using Method 1

Fiscal Year	Average Members per Month	PMPM Savings	Total Annual Savings	Percent Savings
FY07	983,356	$8.73	$103,000,000	1.9%
FY08	1,083,636	$15.69	$204,000,000	3.4%
FY09	1,176,778	$20.89	$295,000,000	4.6%
FY10	1,253,292	$25.40	$382,000,000	5.8%

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Estimated Cost Savings by Eligibility Group

North Carolina Division of Medical Assistance
Estimated Cost Savings Calculated Using Method 1 by Fiscal Year and Eligibility Group

Fiscal Year	ABD Medicaid Only	ABD Dual Eligibles	Children age 20 and under (excluding ABD)	Adults (excluding ABD)	Totals
FY07	($82,000,000)	($14,000,000)	$177,000,000	$22,000,000	$103,000,000
FY08	($34,000,000)	($9,000,000)	$202,000,000	$45,000,000	$204,000,000
FY09	($13,000,000)	($11,000,000)	$261,000,000	$58,000,000	$295,000,000
FY10	$53,000,000	($6,000,000)	$238,000,000	$97,000,000	$382,000,000

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Health Status Adjustments

- Common argument: "Our patients are sicker than yours."
- Strategy: Adjust for health status using risk adjusters.

- We used the 3M Clinical Risk Group (CRG) risk score methodology in our analysis. CRGs are widely used and performed well when reviewed by the Society of Actuaries.
- We also performed independent estimates of health status differences using another risk adjuster, the Chronic Illness and Disability Payment System (CDPS).

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Sources of Uncertainty

- The methods used to measure cost savings do not guarantee that all the calculated savings are attributable to the activities of CCNC.
- We identified and removed sources of cost differences between CCNC and non-CCNC populations, including age, gender, and health status.
- It is possible that there are other unidentified factors between the CCNC and non-CCNC populations that, if they could have been measured, would produce different savings estimates.

Method 3

- Identify beneficiaries who became CCNC members during the study period.
- Compare their health costs in the 12 months before and after their enrollment.
- For each, also find matching beneficiaries that either:
  - Were not in CCNC enrollees during the same period, or
  - Were CCNC members during the entire period.

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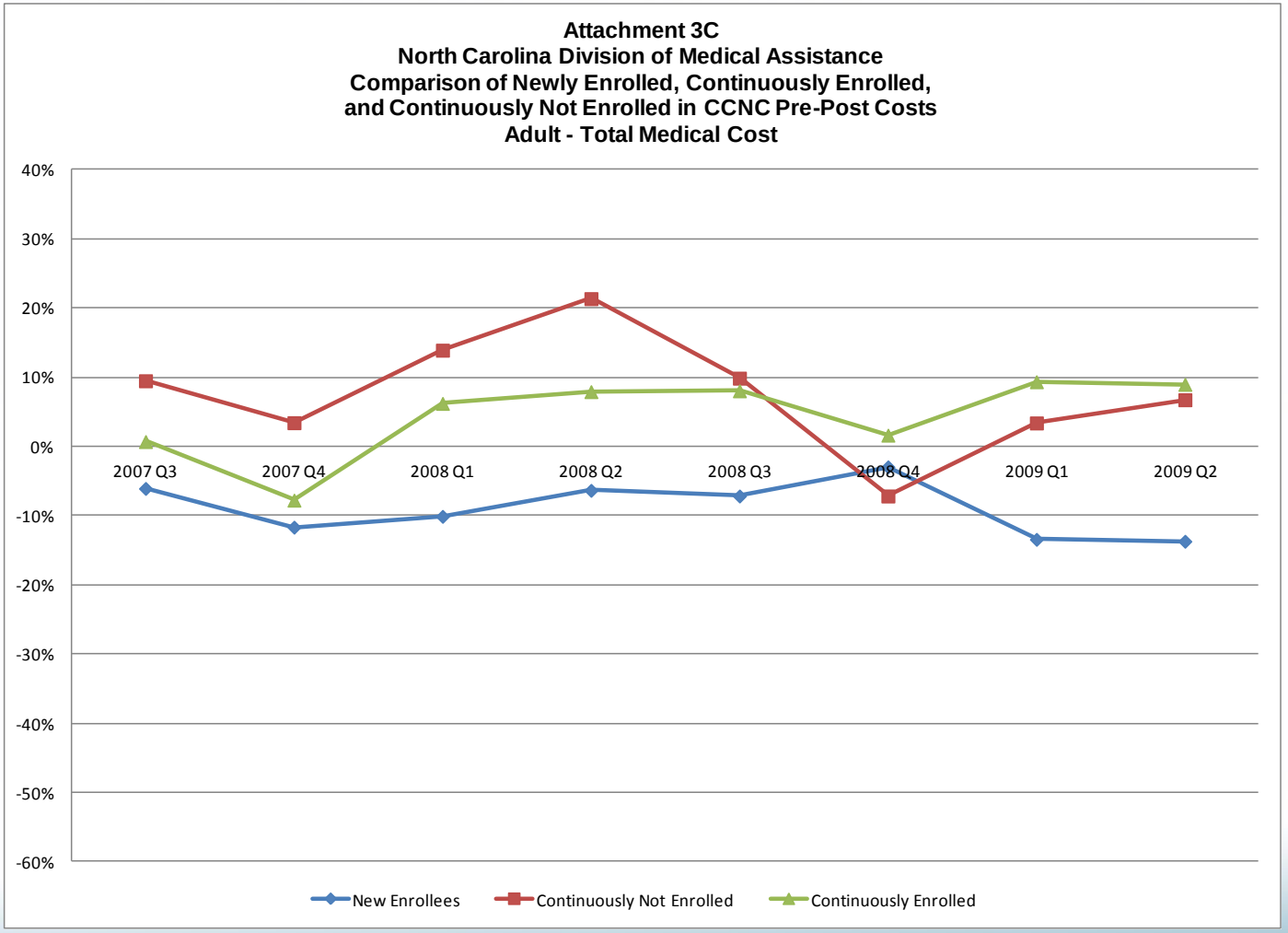
Method 3 – Adult Eligibility Category

Percentage Increase in Year 2 Total Costs



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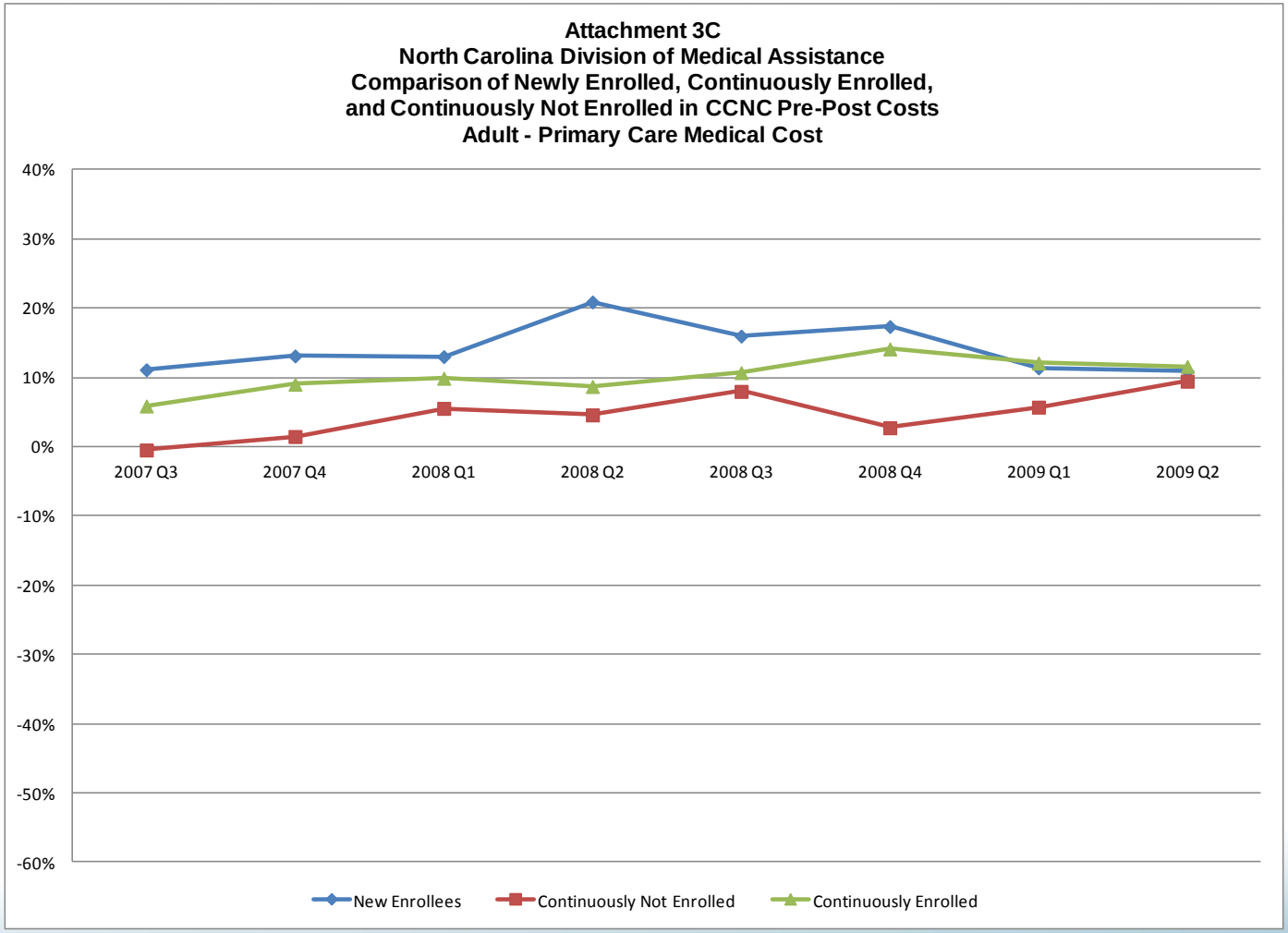
Method 3 – Adult Eligibility Category

Percentage Increase in Year 2 Primary Care Costs



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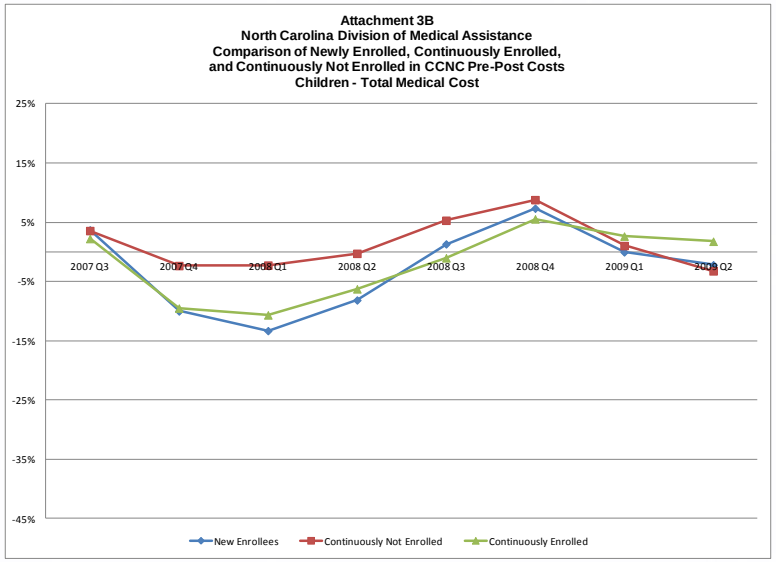
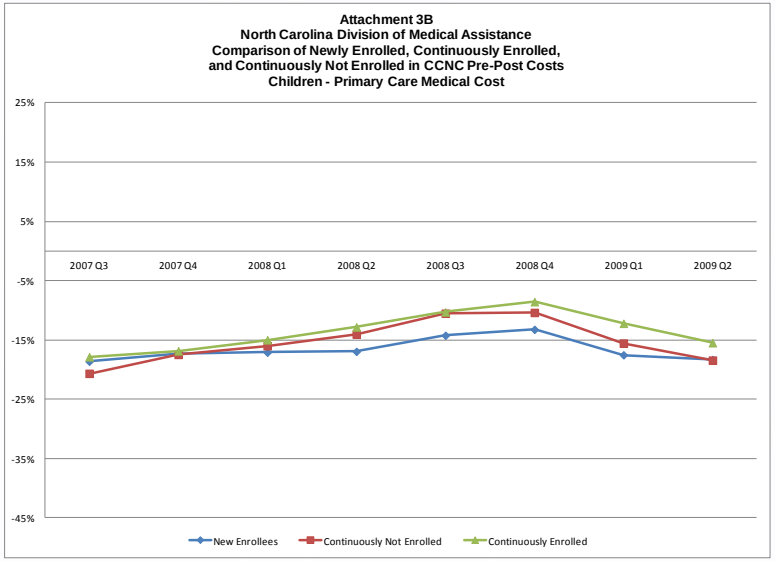
Method 3 – Children Eligibility Category

Percentage Increase in Year 2 Total Costs and Primary Care Costs





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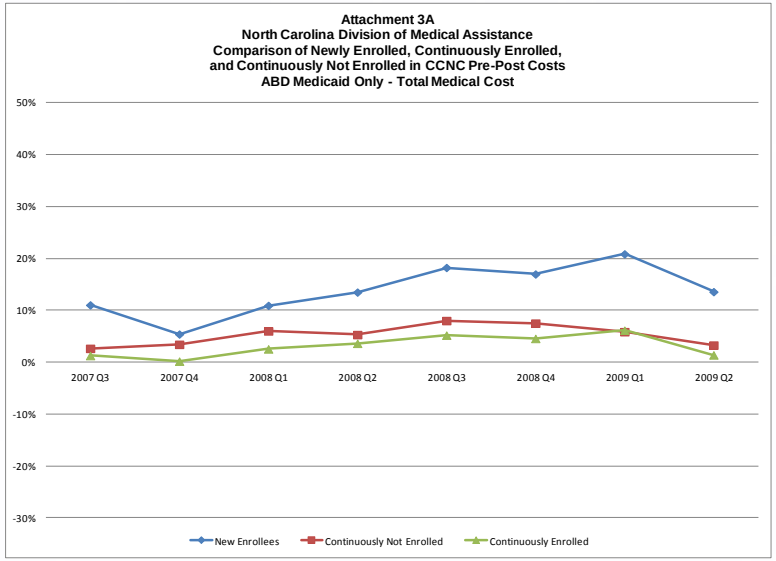
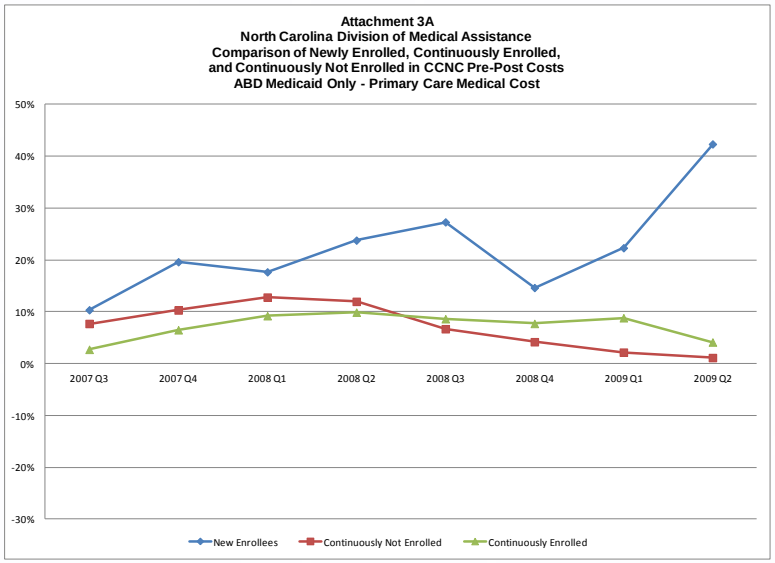
Method 3 – ABD Non-Dual Eligibility Category

Percentage Increase in Year 2 Total Costs and Primary Care Costs





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Reasonableness Assessment

- Is it reasonable that the CCNC program could produce the estimated savings in this report?
- We did not perform a clinical audit of CCNC's managed care activities.
- Based on our understanding of these activities, however, we conclude that our savings estimates are consistent with what has been achieved by programs using similar managed care techniques.

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Conclusions

- Our analysis suggests that CCNC has reduced North Carolina Medicaid costs through care management activities. There are significant sources of uncertainty in this type of analysis. We recommend that DMA continue to monitor the cost and savings of the CCNC program.

- The goal of a medical home model is to improve clinical outcomes and to reduce health care costs. Our analysis focused only on health care costs. The short and long term value of improved clinical outcomes, both to the member and the State, is not measured but should be considered in any discussion of the CCNC program.

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