



Estimating Statewide Cost Saving Based on North Carolina Community Paramedic Pilot Programs

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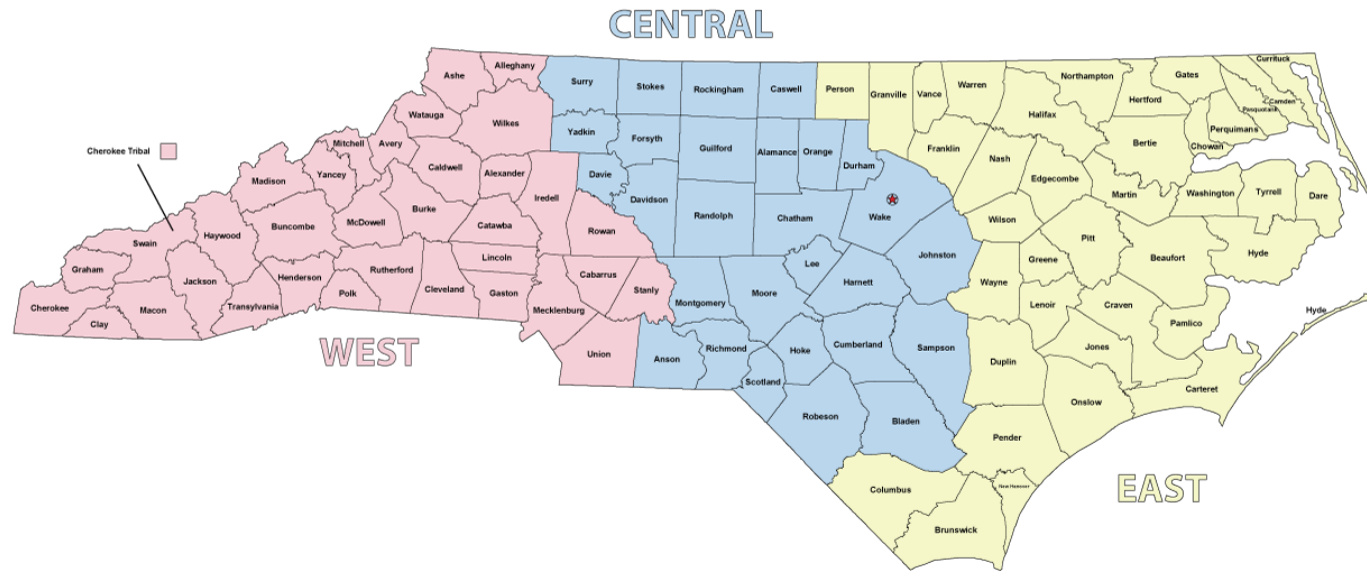
Introduction

The North Carolina Office of EMS (NCOEMS) recently collaborated with three EMS Systems to assess community paramedicine pilot programs.



Introduction

- The three pilot program sites represent the three NCOEMS geographic regions of the State (East, Central, and West) and each represented a different community size (Micropolitan, Medium Metropolitan, and Large Central Metropolitan).



Introduction

Each program targeted a different area of preventative patient care, however, all had the goal of reducing the utilization of EMS and ultimately reduce healthcare costs.



Introduction

NCOEMS CP Grant

Region	Population	System Type	Program Focus
West	Micropolitan 44,996	County Based	911/ED Reduction
East	Medium Metro 202,667	Hospital Based	Re-Admission Reduction
Central	Large Central Metro 900,993	County Based	Alternative Destination



Objective

The objective of this study was to utilize the reduction in EMS utilization and cost realized by the community paramedicine pilot program to estimate the statewide impact if community paramedic programs were put in place throughout North Carolina (NC).



Methods

- The North Carolina Office of EMS *adapted* the definition used by the Centers for Medicare and Medicaid Services (CMS) and the Center for Medicaid and Children’s Health Insurance Program (CHIP) Services (CMCS) to define high utilizers as **anyone who is transported by EMS four or more times in a year.**
- Data for this study was obtained from the NC EMS Data System located within the EMS Performance Improvement Center at the University of North Carolina – Chapel Hill.



Methods

- All patient care reports from 2015 were assessed to determine how many people met the criteria as high utilizers and how many times each of these individuals were transported to the ED by EMS
- Using the information from the pilot programs, a range of potential call and transport reductions were calculated, then applied to every county in the State, using the high utilizer counts.



Methods

- To estimate cost savings, the North Carolina Division of Medical Assistance (DMA) provided NCOEMS with the average amount paid by Medicaid, per claim, per county in North Carolina.
- These figures were applied to all payer groups



Results

- A total of 17,763 patients met the stated definition of a high utilizer in NC for calendar year 2015.
- These patients accounted for a total of 141,176 EMS calls for service and were transported to the ED a total of 103,221 times.

High Utilizers in NC 2015	
Number of high utilizers	17,763
Total number of EMS calls	141,176
Total number of EMS transports	103,221



Results

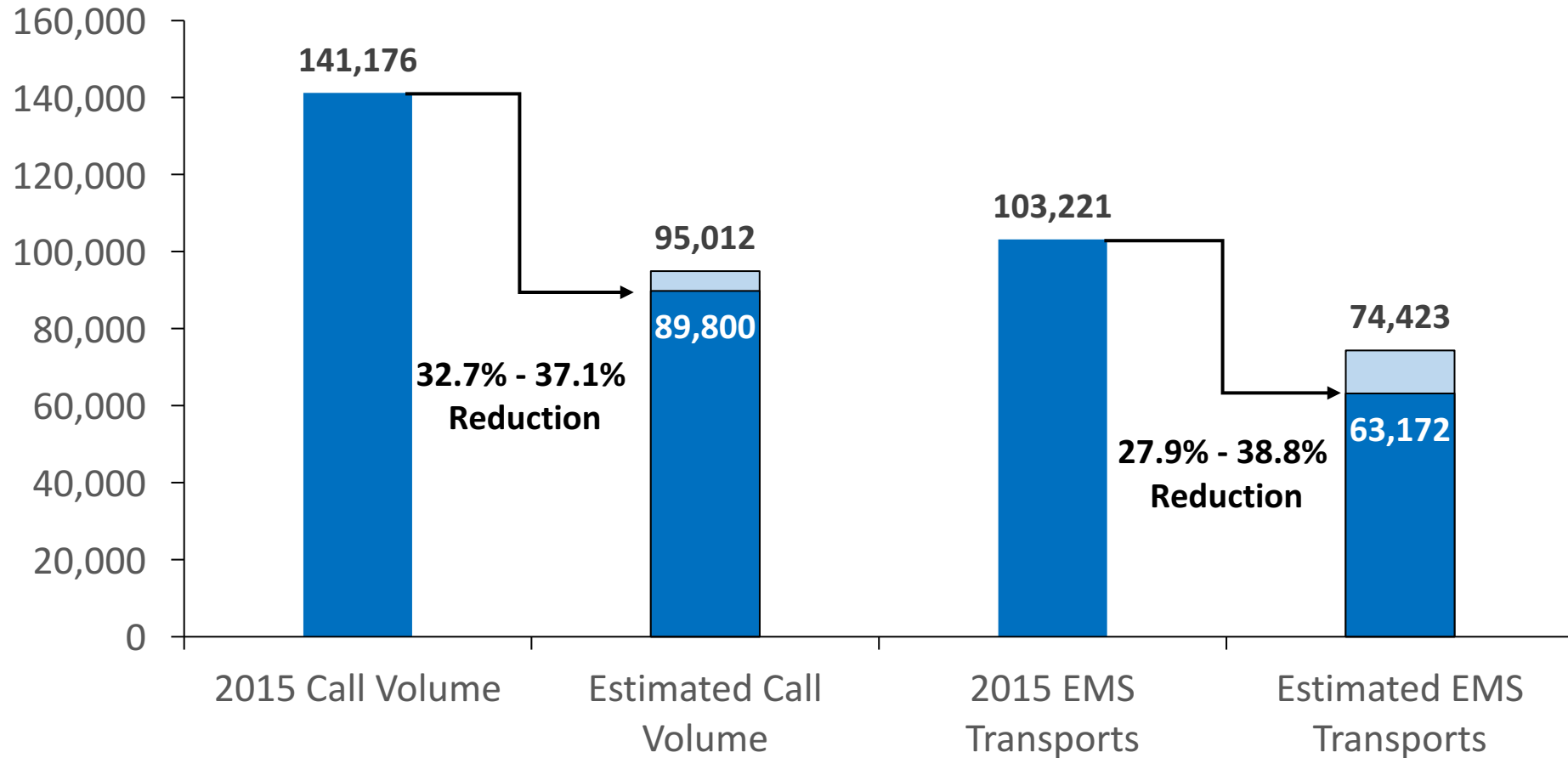
The reduction in EMS utilization realized by the community paramedicine pilot programs:

Number of Calls	Min. % Change	Max % Change
	32.7%	37.1%
Number Transported	Min. % Change	Max % Change
	27.9%	38.8%



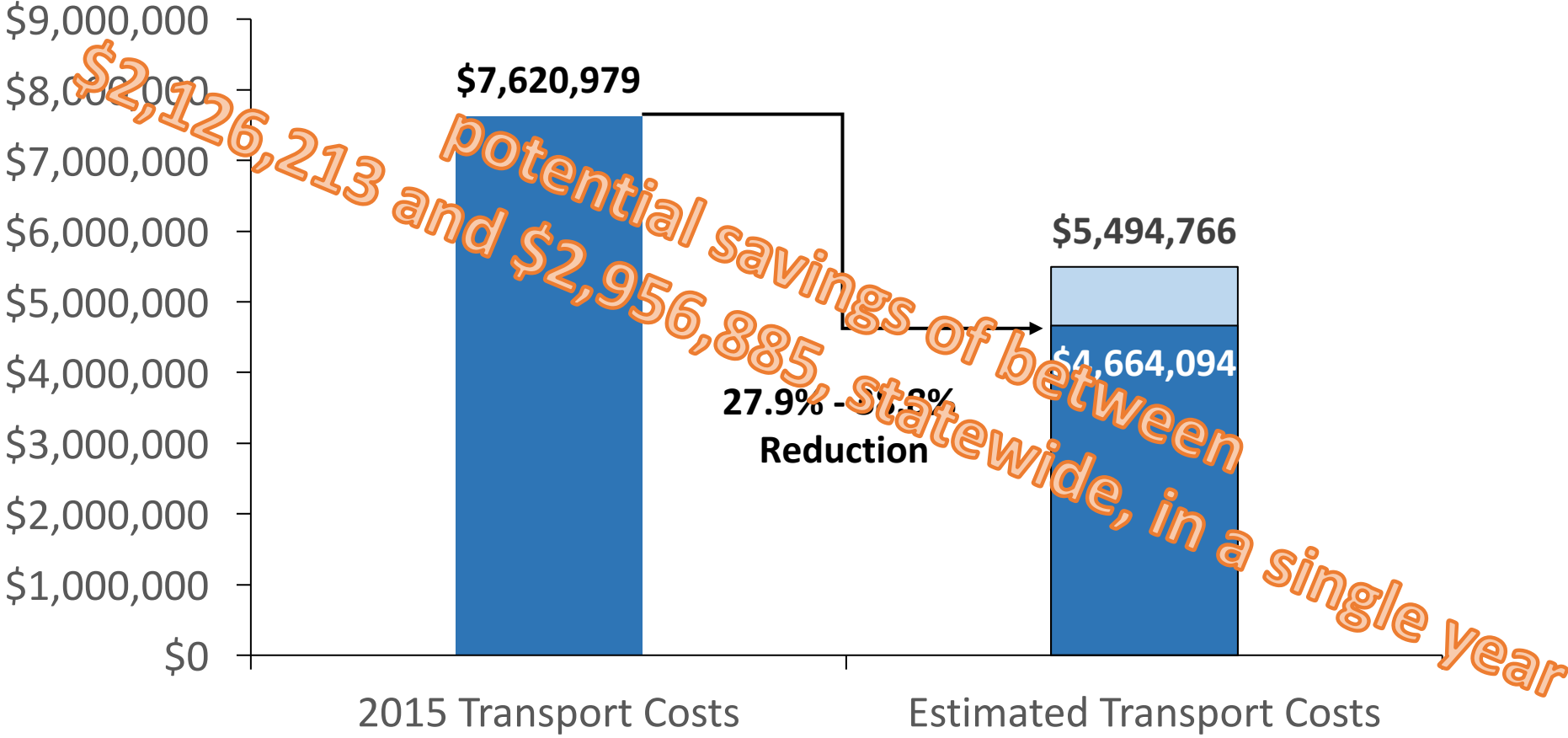
Results

Estimates for the potential decrease in call volume and EMS transports



Results

Statewide estimates of potential saving based on NCDMA payment averages



Limitations & Conclusions

- This study specifically assessed reduction in EMS utilization.
- A substantial cost savings was estimated
- These estimates are very broad and make several assumptions that need further research.
- Applying the NCDMA figures to all payer groups lead to very conservative estimates of potential cost savings.
- In addition to the EMS transport savings, the costs savings of ED outpatient and inpatient care should also be considered.





Thank You



Questions?



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