

# Palliative Care Intervention Reduces Costs for Seriously Ill Medicaid Beneficiaries at the End of Life



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## KEY POINTS FROM THIS BRIEF:

- CCNC's palliative care (PC) initiative exhibits substantial savings during the months prior to death for North Carolina Medicaid patients.
- Medicaid patients participating in the PC initiative had fewer hospital days, more use of hospice services, and lower total healthcare spending in the time period leading up to their death.
- Average cost savings were \$1,661 per patient, per month. Overall, there was an estimated \$2.0 million in savings among the 207 patients receiving PC intervention.

## Background

Palliative care, also known as palliative medicine, is specialized medical care for people living with serious illnesses. It is focused on providing patients with relief from the symptoms and stress of a serious illness – whatever the diagnosis<sup>1</sup>. Palliative care is provided by a specially trained team of doctors, nurses and other specialists who work together with a patient's other doctors to provide an extra layer of support. It is appropriate at any age and at any stage in a serious illness and can be provided along with curative treatment.

Despite the growing availability of hospice and palliative care (PC) programs, these services remain underutilized by low income patients<sup>2</sup>, leading to a

reduction in quality of life at end of life.<sup>3</sup> Conversely, studies that have examined PC interventions have shown that better access for Medicaid patients leads to lower likelihood of dying in intensive care, increased care consistent with preferences, increased hospice use, and significant health care cost reductions.<sup>4</sup> Preliminary evidence supports using care managers (CMs) in primary care to extend hospice and PC services.<sup>5</sup> CCNC has developed reliable systems to identify seriously ill Medicaid patients so that CMs may offer opportunities for advance care planning, improved symptom management, enhanced psychosocial support and hospice referrals when appropriate. The current health care pathway

unfortunately includes a trajectory of hospital admissions and high degrees of intervention for seriously ill patients. The CCNC PC initiative looked to pause this high cost course, thereby allowing goals of care discussions and the possibility of greater concordance of patients'

wishes with the care that they receive. The purpose of the preliminary evaluation described in this brief was to determine if we could identify any "signal" that a PC intervention performed by CCNC care managers has impact on subsequent healthcare cost and utilization.

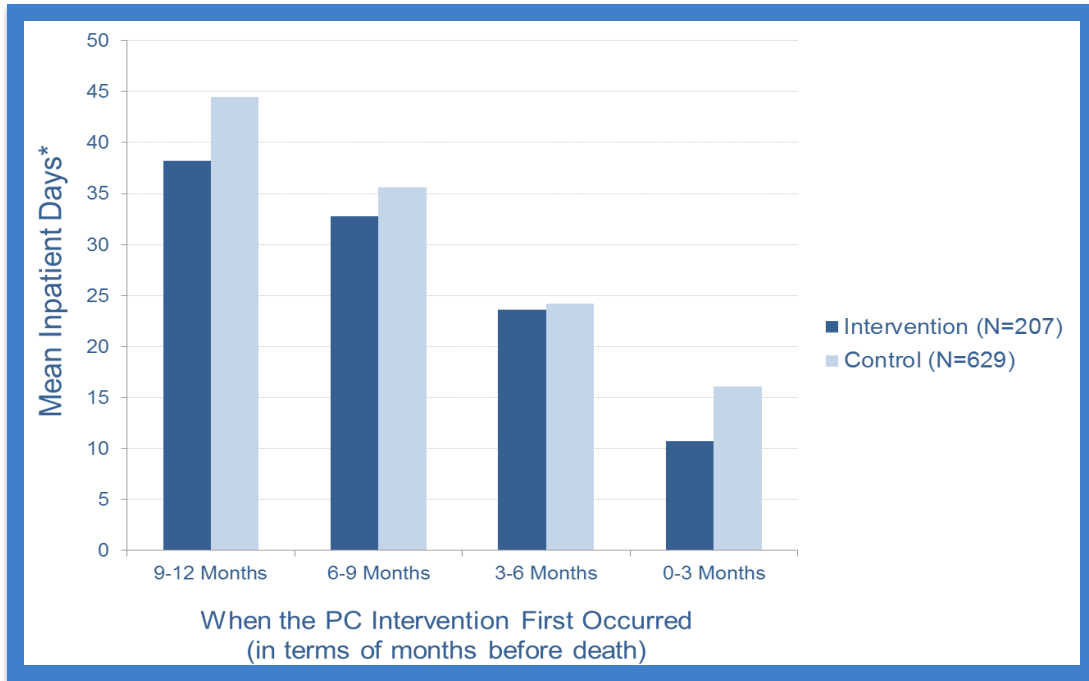
### **Significant Impact Observed in Palliative Care Participants**

CCNC palliative care uses care managers to assess the palliative care needs of identified patients and to facilitate referrals where appropriate to local palliative care and hospice resources. Engagements may include assessments for symptoms of psychological stress, clarification of a patient's goals of care, completion of advance care planning documents, referrals to palliative care consultants or hospice, and coordination of care with the medical care team.

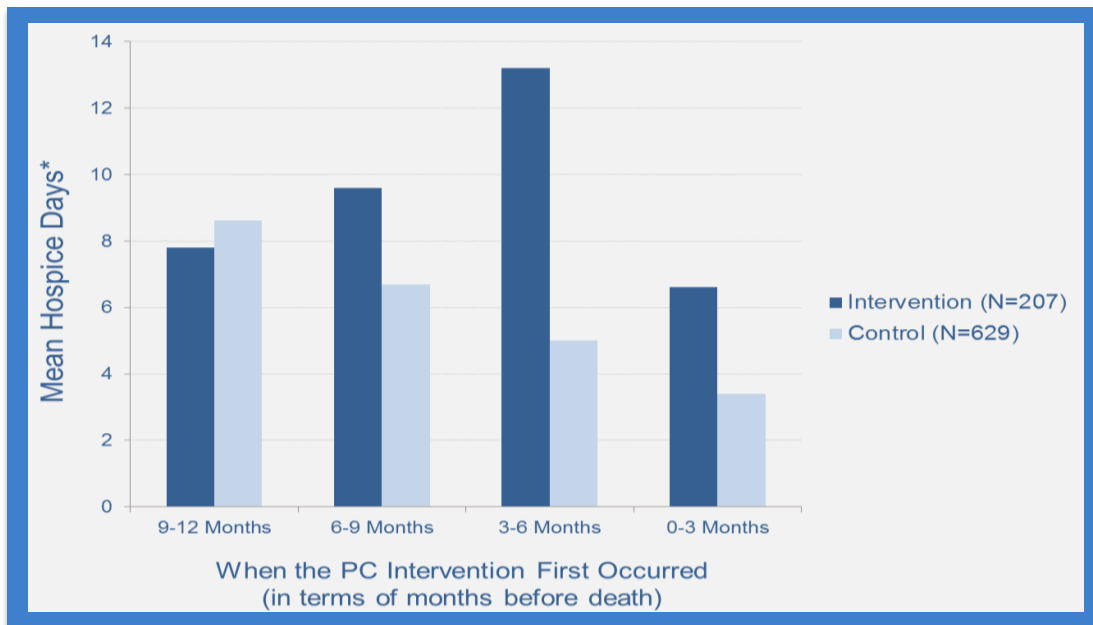
We examined healthcare costs and utilization for 836 North Carolina Medicaid patients who met criteria for the evaluation: 207 receiving PC intervention, and 629 in the comparison group who did not.

Four categories or strata of patients were created based on when death occurred relative to their earliest hospital admission during the year leading up to death. In nearly every strata, patients who received PC spent less, had fewer inpatient days, and had more hospice days during the months prior to death (see Figures 1-3). When examining the cost impact overall across strata, patients in the intervention group spent \$1,661 less each month from the time they received the intervention until death. Patients receiving PC also had an average of 0.5 fewer inpatient days per month, and an increase of 0.7 hospice days per month

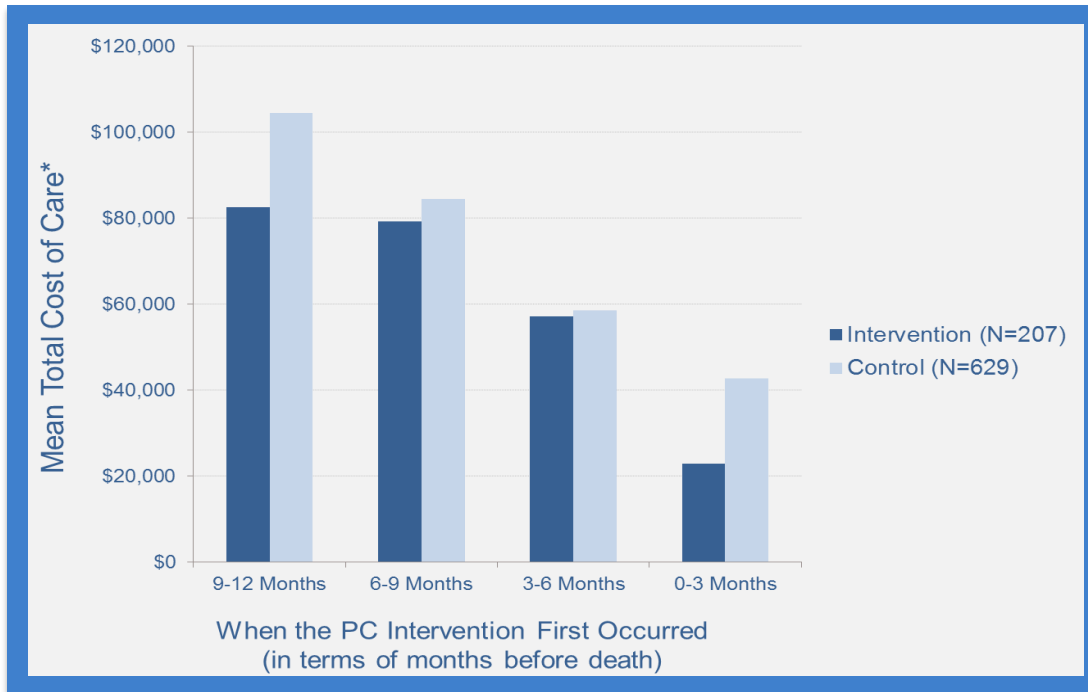
**Figure 1: Effect of Palliative Care Intervention on Inpatient Utilization in Months before Death**



**Figure 2: Effect of Palliative Care Intervention on Hospice Utilization in Months before Death**



**Figure 3: Total Cost of Care in Months before Death**



**Figure 4: Estimated Savings Attributable to Palliative Care Intervention**

Strata (when death occurred relative to index discharge)	Intervention MM	Control MM	Intervention PMPM	Control PMPM	Difference PMPM	Difference PMPM weighted by Intervention MM	Average Impact Across Strata (per month prior to death)
<b>9-12 Months</b>	471	3,272	\$7,878	\$9,833	-\$1,956	-\$921,195	
<b>6-9 Months</b>	351	1,166	\$10,369	\$11,213	-\$843	-\$296,025	
<b>3-6 Months</b>	281	593	\$12,799	\$12,437	\$362	\$101,795	
<b>0-3 Months</b>	102	83	\$11,893	\$20,586	-\$8,693	-\$886,657	
<b>Overall</b>	1,205	5,114				-\$2,002,083	<b>-\$1,661</b>

### Data Sources and Methodology

Medicaid eligibility and claims data were used to determine date of death as well as calculate cost, inpatient utilization and hospice utilization. The analyses were limited to non-dual CCNC enrollees with multiple chronic or catastrophic conditions per 3M Health Information System’s Clinical Risk Groups (CRGs), and further limited to those CRGs known to have high rates

of mortality based on previous analysis. These particular CRGs are also known to have high rates of inpatient admissions/readmissions. All patients in both samples had to have died between 2009 and 2012 in order to be included in the analyses. Analyses were conducted as a function of when they died relative to when they received the intervention. Because 95% of the

patients in the intervention group received their palliative care intervention within 30 days of an inpatient discharge, we limited our analyses to those with an inpatient visit, both in the intervention and control groups.

For the intervention group, the inpatient discharge around which the patient received the palliative care intervention was referred to as the index discharge. For the control group, the first inpatient visit that occurred during the last year of the person's life was identified as the index

## Conclusions

Results from this evaluation provide compelling evidence that there is potential savings from palliative care interventions delivered by a care manager within a primary care setting. Across the sample, patients who received PC were observed to save over \$1,600 each month during the months prior to death, had fewer hospital days, and more utilization of hospice services. It should be noted the ability to achieve savings is likely depending on accurate targeting of patients requiring palliative care. Savings observed in this evaluation were from patients who did die within a few months of the initial intervention.

It would be inappropriate to assume that providing palliative care interventions to patients not nearing the end-of-life will result in the same degree of savings. However, as our ability to identify those who need palliative care improves, we can expect to yield substantial

discharge. All patients had to have been continuously eligible for Medicaid during the months prior to death. In order to further maximize comparability with the comparison group, we stratified patients according to when they died relative to the index discharge in both groups. Following the approach described above ensured that we were comparing patients in the intervention group with patients who had similar risk of mortality, risk of admission/readmission, and similar time until mortality.

savings and prevent avoidable hospitalizations at the end of life. It should also be noted that this evaluation is limited to an examination of the effects of PC on total costs, hospital and hospice utilization.

The goal of CCNC's intervention is to improve the quality of end of life care for Medicaid beneficiaries through increased access to hospice and PC services. In the care of vulnerable, seriously ill patients nearing the end of life, the primary goals of palliative care are to prioritize the individual patient's own goals of care, and to assure high quality management of symptoms.

Considerations of potential cost savings should remain secondary to these other aims. This evaluation of CCNC's approach to supporting beneficiaries at the end of life provides welcome evidence that palliative care interventions can be a win-win for patients and families as well as payers.

## References

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