Effectiveness of Care Management for Engaging Patients with Their Medical Homes

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KEY POINTS FROM THIS BRIEF:

- CCNC conducted this evaluation to assess how well care management can influence Medicaid patients' engagement with their primary care providers.
- Patients were more likely to visit their primary care provider following care management outreach compared to similar patients not engaged in care management.
- The incremental impact of care management increased the longer it had been since the patient had seen their primary care provider. For example, patients who had visited their medical home the previous year only experienced an 8% increase attributable to care management, whereas patients who hadn't seen their doctor in 4+ years experienced a 68% increase attributable to care management.
- Non-Hispanic people of color, and those eligible under Medicaid expansion, were also less likely to engage with their primary care provider, suggesting a need for more targeted strategies.
- Care management appears to have the greatest impact among patients who have historically been less engaged with the medical home, and particular focus should be directed towards engaging those patients as opposed to the broader membership.

Background

It is well known that consistent engagement with primary care is vital for ensuring optimal population health outcomes, especially for subgroups who are often faced with challenges in accessing continuous, quality care. Specifically, care management for Medicaid populations has become a model intervention among Managed Care Organizations (MCOs) as a holistic, integrated approach in the prevention and management of medical conditions. The current care management recommendations for primary care practices as per the AHRQ consist of strategies that focus intensely on population level risk stratification and targeted service alignment.[1] As a result, proactive and consistent patient-level engagement in primary care services, especially among patients at high risk for primary care disengagement, is one of the most critical aspects in successfully executing these strategies at the population level. Analyses of primary care utilization surveys within the last 10 years have shown, however, some decrease in primary care engagement, especially among patients with no comorbidities.[2]

Though Medicaid expansion has aided in reducing financial barriers to primary care access, other challenges persist. Evidence shows that anywhere between 57%-74% of Medicaid patients had a primary care visit within the last year and in the time frame after Medicaid expansion, many low-income patients reported delays in securing an appointment and increased wait times.[3-5] In an attempt to accommodate new patients covered under Medicaid expansion, case studies have also demonstrated that in some states, many physician practices experienced limited appointment availability for established patients.[6-7] Other barriers included limited availability of primary care clinicians, lack of convenient open clinic hours, transportation issues, all of which have led to an increase in ED utilization.[8]

Results from these investigations have reported a leveling in coverage gaps, yet for some Medicaid patients, the trend failed to reverse and there is a need to supply additional efforts in engaging long-term patients in primary care. Currently, much of the research investigating the degree of effectiveness of care management is predicated mostly on preventable emergency and inpatient visits, cost containment and/or finely curtailed disease management for those patients with multiple comorbidities. Access to a continuous source of primary care and the factors that lead to disengagement have not been thoroughly assessed, nor the additional impact that care management can have on remediating this phenomenon. The main objective of this evaluation is to assess the impact of care management outreach on patients who have been disengaged from their health homes for at least one year.

Findings

This evaluation consisted of 11,224 Medicaid patients approached for care management during the period of January 1, 2024 – June 30, 2024. Patients were enrolled in one of two Medicaid Prepaid Health Plans and assigned to an advanced medical home within the Community Care Physician Network. Approximately 60% of the patients included in the final sample were female and approximately 67% were over the age of 21. With regards to race and ethnicity, 49% were white and over 90% non-Hispanic. We hypothesized that the Medicaid expansion population was less likely to engage with primary care, therefore, we controlled for this indicator and about 4% of those sampled were covered under Medicaid expansion. Almost 70% of the patients studied saw their primary care provider within the last two years. This indicates that more than half of the patients included in the evaluation were reasonably engaged in their medical homes prior to any intervention.

In terms of the evaluation, the Intervention group was defined as patients who were successfully contacted by a care manager. The Comparison group was comprised of patients who only received an attempted outreach, but no successful contact during the evaluation period. Each group was roughly equal in size in the final sample. Considering time as a factor in reengaging with a primary care provider after contact with a care manager, the primary outcome was defined as having received a primary care visit within 30 days of the initial outreach. Although getting seen within 30 days can sometimes be dependent on the scheduling availability at the practice, there was no reason to believe that patients who received care management outreach were disproportionately enrolled in practices with reduced availability. Overall, 16% of the patients included in this evaluation visited their medical home during the 30-day follow-up period. Table 1 displays the characteristics of patients included in the evaluation.

Table 1: Characteristics of Patients Included in this Evaluation

Characteristics	Category	Intervention Group		Comparison Group	
		n	Percent	n	Percent
Sex	Female Male	3,433 2,242	60.5 39.5	3,311 2,238	59.7 40.3
Age	Child Adult	3,914 1,761	69.0 31.0	3,611 1,938	65.1 34.9
Race	White Black Other	2,759 2,441 475	48.6 43.0 8.4	2,747 2,351 451	49.5 42.4 8.1
Ethnicity	Hispanic Non-Hispanic	500 5,175	8.8 91.2	360 5,189	6.5 93.5
Payer	Payer A Payer B	2,701 2,974	47.6 52.4	2,443 3,106	44.0 56.0
Medicaid Expansion	Yes No	170 5,505	3.0 97.0	256 5,293	4.6 95.4
Years Since Last Primary Care Visit	1 2 3 4	2,141 2,117 725 692	37.7 37.3 12.8 12.2	1,651 1,888 896 1,114	29.8 34.0 16.1 20.1
Received a Primary Care Visit During the Follow-Up Period	Yes No	1,053 4,622	18.6 81.4	788 4,761	14.2 85.8

Table 2 reports the odds ratios associated with each of the terms in the logistic regression model. For purposes of interpretation, an odds ratio greater than 1.0 means that that particular factor was associated with an increased likelihood of visiting their medical home, while an odds ratio less than 1.0 means that particular factor was associated with a decreased likelihood of visiting their medical home. The corresponding p-value indicates whether the increased or decreased odds is statistically significant. Although the odds of having a follow-up practice visit were not significantly different between the Intervention and Comparison groups when looking at the population overall (odds ratio = .97, n.s.), the significant interaction term (Received Intervention*Years Since Last Practice Visit) confirms that the impact of the care management increased the longer it had been since the member visited the practice. Although patients who had not seen their provider in a number of years were less likely overall to visit their medical home during the evaluation period, the likelihood that they would visit their medical home increased 17% (95% CI: 1.04-1.31, $p<.05$) with care management for each additional year since they were last seen at the practice.

Table 2: Odds of Receiving a Primary Care Follow Up Visit

Variable	Odds Ratio (95% CI)	p-value
Sex	1.03 (0.93-1.15)	0.55
Age	1.01 (1.01-1.02)	<0.0001
Race (White)	1.35 (1.22-1.50)	<0.0001
Ethnicity (Hispanic)	1.16 (0.94-1.43)	0.17
Payer A vs. Payer B	0.80 (0.71-0.89)	<0.0001
Medicaid Expansion	0.69 (0.51-0.93)	<0.05
Received Intervention	0.97 (0.77-1.22)	0.77
Years Since Last Practice Visit	0.58 (0.53-0.63)	<0.0001
Received Intervention * Years Since Last Practice Visit	1.17 (1.04-1.31)	<0.01

Figure 1: Effectiveness of Care Management on Primary Care Visit Rates for Total Sample

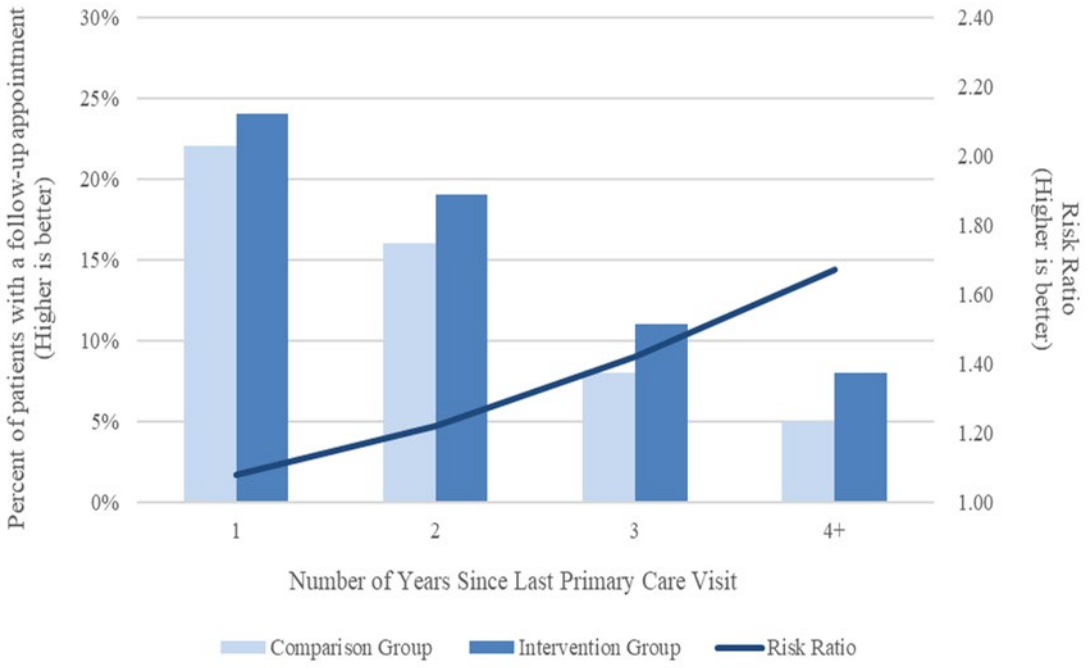
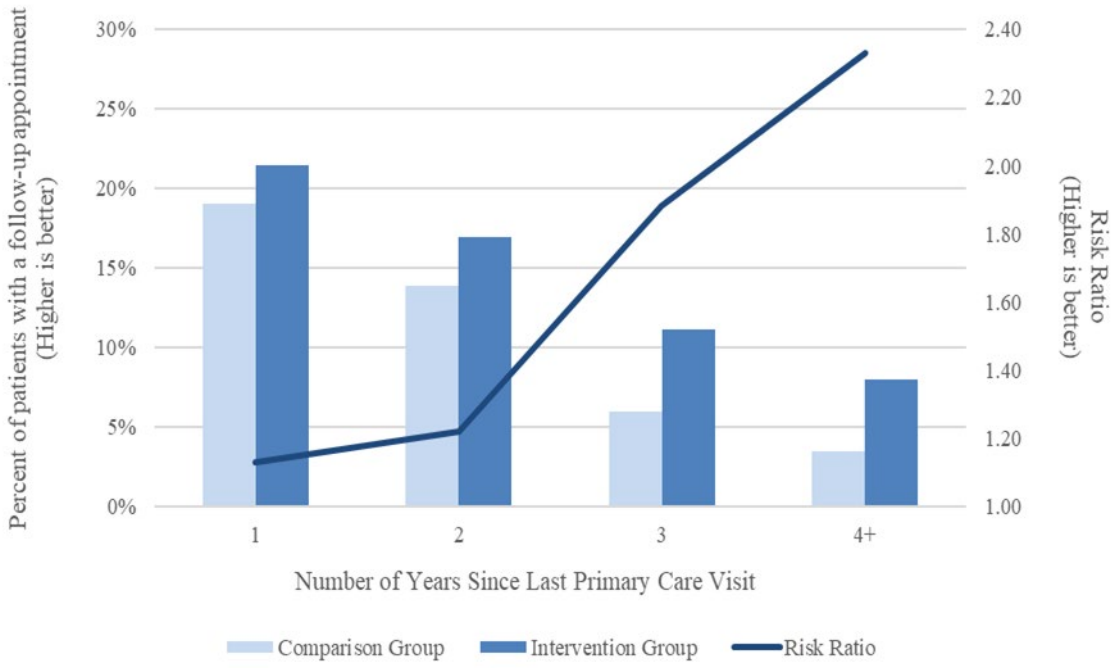


Figure 1 illustrates the nature of this relationship. The bars indicate the percent of members in those sub-strata who visited their medical home during the evaluation follow-up period. The line represents the increasing Risk Ratio or the relative impact of the intervention for patients in that subgroup. A Risk Ratio is defined as the percent of members receiving a primary care visit for the intervention group divided by the comparison group. For patients that had their last visit 4 or more years ago, the care management outreach increased their engagement by approximately 67% (RR=1.67) compared to only an increase of 8% for patients who had only one year since their last visit (RR=1.08). Similarly, patients covered under Medicaid expansion were 31% (95% CI: 0.51-0.93) less likely to see their medical home, though care management increased the odds of them engaging with primary care by 56% (RR=1.56) for those in the Intervention group.

As indicated by the race and ethnicity terms in Table 2, being non-Hispanic and non-White were associated with a reduced likelihood of visiting their medical home. Figure 2 demonstrates that the same trend existed for that subgroup where impact increased the longer it had been since they last visited the practice. However, the Risk Ratios show that the impact was even greater among this subgroup. Specifically, non-white patients who had visited their medical home the previous year experienced a 13% (RR=1.13) increase attributable to care management, whereas those who had been disengaged for 4+ years experienced a 133% (RR=2.33) increase.

Figure 2: Effectiveness of Care Management on Primary Care Visit Rates for Non-White Patients Only



Discussion and Conclusion

Our evaluation demonstrates that while delivering care management outreach to patients can have a modest impact overall, the main benefits appear to be among patients who have historically been less engaged with their medical home. These include members who have not visited primary care in the past two years, as well as Medicaid Expansion and non-White individuals who have historically had lower engagement rates. Care management outreach campaigns aimed at improving primary care visits would be wise to focus their efforts with these particular populations in order to realize the maximum benefit of the outreach.

Because this was a non-randomized evaluation, we must be cautious about making causal statements. However, our analyses attempted to control for many factors that would typically influence practice engagement rates. As another limitation, this analysis did not control for frequency of care management interactions. Although the evaluation was able to find a temporal association between care management engagement and scheduling of a follow-up appointment, the effectiveness of a completed care management interaction was limited to an indexed timepoint. As a result, the impact of subsequent multiple care management interactions on increased likelihood of PCP reengagement was not measured. Furthermore, this also does not control for patients with more complex needs who may require not only multiple successful contacts with a care manager, but also possibly more than 30 days to successfully engage with their PCP, irrespective of how far their last point of engagement was.

Nonetheless, care management programs have shown success with defined targeted populations, such as those with recent emergency room and hospital visits and multiple comorbidities, and our evaluation shows additional benefits of utilizing care management services to reconnect patients to primary care, particularly for non-Hispanic, non-White patients and for those who have been disconnected from their primary care homes for longer periods of time. These findings highlight the need for expanding targeted care management interventions to other populations, and how these approaches may be used to improve visits to primary care practices, particularly for patients who may have barriers to care. Increased connection to primary care homes has been shown to decrease emergency room visits[9] and lower overall health care costs.[10] As financial resources for underserved populations become more scrutinized and limited, it is important that we consider how these resources are distributed and utilized, and priority should be considered for high value interventions that emphasize the best quality with the lowest possible cost. Amplifying targeted care management outreach and interventions can help to improve primary care access and delivery, and may divert the need for more expensive, and ultimately unnecessary, medical interventions.

Additionally, our results highlight that patients who are not White or Hispanic are less likely to have a follow up visit compared to White patients, and they are more likely to benefit from care management services the longer they are disconnected from primary care compared to White patients disconnected from primary care of the same duration. These findings highlight ongoing health disparities that exist and are often worsened in the most vulnerable populations, such as those with complex challenges that span several social determinants of health domains. It is well known that historically marginalized populations are often revealed to have poorer health outcomes and are more likely to have suboptimal chronic disease management.[11-12] As there has been minimal improvement in narrowing health disparity gaps over time, it is imperative that we utilize public health and community approaches to address the

etiologic and contributing factors of health disparities and barriers to improvement. Care management services for these at-risk populations may not only reconnect patients back to primary care homes for medical care but can simultaneously address many socioeconomic hardships that ultimately affect health and wellbeing outcomes. For example, care managers not only directly help with re-establishing care and health care coordination, but they are also highly skilled in addressing challenges such as food insecurity, housing instability, and transportation barriers amongst many other determinants of health. These challenges are undeniably linked to health access and outcomes and are often unable to be fully addressed during routine healthcare visits, but when addressed, can make a meaningful difference and help create a healthier population.

As healthcare systems, public health agencies, and insurance companies continue to evaluate the needs of the populations they serve, they should consider prioritizing targeted care management services, as there is demonstrated effectiveness in reconnection to primary care that would not only benefit patients, but would also decrease cost of care. Future studies should continue to explore populations that would benefit from care management services, and other population and community-focused interventions, particularly when it is shown to demonstrate favorably towards health outcomes and cost savings. More evaluations are also needed to understand the long-term impact of care management services, including studies evaluating if these methods can help achieve better health equity, and how effective interventions and systems can be sustained over time.

Appendix

Methodology

Sample

The evaluation population consisted of 11,224 patients who were approached for care management contact during the evaluation period. The inclusion criteria consisted of patients who were outreached by a care manager between January 1, 2024, and June 30, 2024. The treatment group was defined as those patients who were able to successfully engage with a care manager via outreach at least once, even if all other attempts during the evaluation period were not successful. The control group consisted of those who regardless of numbered attempts, there was no engagement with the care manager. The sample was further limited to patients from two specific payer groups due to data quality issues. The exclusion criteria comprised of patients that had no care management contact attempted, no primary care visits or visits dated before their index care management date. We also excluded patients whose last PCP visit was unknown. Because we didn't want to limit our evaluation to the unique set of members with 4 or more years of continuous Medicaid eligibility, we did not impose a requirement in terms of how much historical Medicaid eligibility the patient had. However, to control for differing lengths of eligibility, we stratified the analyses by years since last practice visit such that comparisons between the intervention and control group were being made among members with similar histories of Medicaid eligibility.

Data Sources

Data was collected on care management engagement dates, last year of primary care visit and most recent primary care visit dates. The practice visit data was derived from paid claims data provided by the respective payers. An index care management contact date was selected for each patient as the first date within the period between January 1, 2024, and June 30,2024. The primary care visit index date was also selected as the first date after the initial care management assessment date. For each index care management contact date, we examined whether there was a follow-up primary care visit within 30 days of contact. The primary variables measured included whether the initial care management engagement was successful or not, number of years since their last primary care visit and if there was a follow-up visit within 30 days after contact with a care manager. Secondary variables consisted of demographic information such as age, gender, race, ethnicity, payer status, and if the patient was covered under Medicaid expansion (excluding those whose last primary care visit was unknown). This data was derived from beneficiary files, also provided by the respective payers.

Intervention

The Care Coordination Team at CCNC has a direct impact on the delivery of care by working closely with providers. The team works on closing care gaps by identifying patients and their recommended actions via CCNC's Care Impact reports. Each practice across the network is assigned a dedicated Member Care Coordinator. This ensures that every practice has a coordinator working with their respective recommended actions reports, which identify patients who are overdue for screenings, follow-ups, or chronic condition management. Through thorough outreach and engagement, various methods are employed to help support and reconnect the patient back to their primary care

provider for needed care. These methods typically included a telephone call, telehealth visit, outpatient visit, case management contact, or behavioral health check-in.

Statistical Methodology

Statistical analysis for this evaluation was performed primarily in SAS. A logistic regression model was used to evaluate our primary outcome measure, which was the odds of seeing a primary care physician within 30 days of a care management evaluation. This outcome measure was constructed based on an index primary care visit date and whether it was within 30 days of a corresponding index care management intervention date. The model also controlled for various factors such as patient demographics, payer, Medicaid expansion coverage, successful intervention with a care manager and number of years since last primary care visit. The significance of maximum likelihood estimates was assessed using p-values, and odds ratios. To further highlight the impact of receiving care management, we also utilized risk ratios to assess the relative probability of following up with a primary care visit. In assessing the need to control for disparate outcomes, our results determined that ethnicity, gender and, to a certain extent, age did not generate odds ratios that were deemed statistically significant. Patients who were non-Hispanic white were 35% (95% CI:1.22-1.50) more likely to have a follow up visit compared to other non-Hispanic groups. This assisted us in determining that there is in fact a racial disparity in having a follow-up appointment.

Additional Findings

It's worth noting that the follow-up rates were 20% (95% CI: 0.71-0.89) lower for one payer over another. It's unclear why that was the case for this particular analysis. It's possible that one plan implemented different incentives for practices to engage patients, or one payer may have had more claims denials. Either way, the trends were similar across both payers, and our analysis controls for these differences. Additionally, a small fraction of the sample had received outreach following a recent inpatient or ED discharge (6.9% and 1.5% of the total sample, respectively, had had an ED or inpatient discharge in the 30 days prior to receiving outreach). Although the focus of the paper wasn't on these special cases, we recognize they may have had some unique impact on the results. However, when removing these small subset of patients from the analyses, there was no difference in the overall story.

Suggested Citation

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