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Variation in Psychiatric Collaborative Care Management Codes by Populations: Understanding Extent of Use and for Whom

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Background

Integrated behavioral health (IBH), or behavioral health care incorporated into physical health settings, is widely understood as an effective strategy to increase access to behavioral health care and improve the mental health of populations (Crowley et al., 2015; IOM, 2026). One model of IBH with significant evidence is Psychiatric Collaborative Care Management (CoCM), in which a patient is treated by a team comprised of a primary care provider, behavioral health care manager, and consulting psychiatrist (Unützer et al., 2002). CoCM is one of the most effective IBH interventions with an existing mechanism to finance its usage, as billing codes specific to the model were released by CMS in 2018 (Coates et al., 2020; Whitfield et al., 2022). However, health systems have described the process of billing CoCM codes as burdensome, and they remain underutilized (Carlo et al., 2020; Whitfield et al., 2022). Analysis of Medicare claims found less than 0.1% of all beneficiaries with a mental health condition had a CoCM claim in 2018 (Brown et al., 2021). Observed CoCM code use has similarly been low among Medicaid-insured populations. For example, in the 15 months after the state of North Carolina introduced CoCM codes, only 915 individuals out of more than two million eligible beneficiaries received a CoCM claim (Copeland et al., 2022). Although commercial insurers have also expanded benefits to include CoCM, no known work has examined CoCM use within commercially insured populations.

In addition to limited information on the use of CoCM billing codes for commercially insured individuals, the length of time individuals receive CoCM treatment, known as an episode of care (EOC), also remains unclear. The CoCM intervention is intended to be delivered until clinical symptoms subside. Studies examining the effect of COCM have utilized a “treat-to-target” model in which patients remain in the program until they achieve a reduction in symptoms evidenced by an improvement in scores measured over time (Bowen et al., 2020; Smith et al., 2021). Though two studies have evaluated the median duration of CoCM delivery to symptom reduction (Garrison et al., 2016; Huang et al., 2024), literature defining the average length of CoCM EOC frequency remains limited. It is important to know both use, and duration, of CoCM. Accordingly, this study seeks to understand the number of CoCM claims among commercially insured patients, the average length of CoCM, and the extent to which EOCs vary by billing year, patient’s age, rurality, sex, or type of health care provider.

Research Aims

- Characterize trends in CoCM use among commercially insured individuals between 2018 and 2022.
- Describe differences in CoCM episodes of care by diagnosis, age, sex, rurality, and provider type.

Methods

The data from this study were drawn from MarketScan®, a large commercial claims database. The sample included individuals who had at least one CoCM claim (Current Procedural Terminology [CPT] codes 99492, 99493, and/or 99494) between January 1, 2018, and December 31, 2022. From this cohort, we examined CoCM EOCs—that is, the length of CoCM treatment received (e.g., how many consistent months of CoCM treatment the patient received). We first characterized patients who received any CoCM visit, then described variations in CoCM EOCs by provider type, associated diagnosis codes, and patient characteristics. Descriptive summary statistics were calculated followed by multivariate logistic regression analyses to identify differences in CoCM EOCs (e.g., CoCM treatment three months or longer; CoCM treatment six months or longer) by patients' diagnosis, age, rurality, sex, and provider type.

Key Findings

Across the study period (2018 to 2022), a total of 16,537 individuals received at least one CoCM claim (**Table 1**). This is less than .003% of all continuously enrolled individuals in the database during the same period (n= 6,183,536). Of the individuals who received at least one CoCM claim, 41% received greater than three months of treatment, while 15% received greater than six months of treatment. There was variation in diagnoses, provider, and average length of CoCM EOC over the study period. The most common diagnoses associated with a CoCM EOC claim were anxiety (62%), depression (45%), trauma-related disorders (14%), and substance use disorders (SUD; 4%). One-third of CoCM visits were attributed to males. Four common provider types billed for CoCM claims: family medicine (40%); internal medicine (29%); nurse practitioner (7%); and multispecialty physician group (1%).

While presence of anxiety disorders and trauma-related disorders associated with CoCM visits over the study period increased, depressive, SUD diagnoses, and other mental health disorders were less likely to be included as a diagnosis associated with the CoCM claim. Provider types billing CoCM also changed during the study period, with more family medicine and nurse practitioners providing CoCM over time while the proportion of internal medicine and multispecialty physician groups declined. There was also a higher observed proportion of patients that had an EOC lasting 6-months or longer in 2020 and 2021 than in other years.

Two multivariate logistic regression models examined factors associated with greater than three and greater than six months of CoCM EOCs, respectively (**Table 2**). In the first multivariate logistic regression model, we found a significant relationship between receiving greater than

three months of CoCM and the year of treatment initiation. Specifically, for each year after 2018 a patient had an initial CoCM visit, they were 13% more likely to have a CoCM EOC lasting three months or more. In the second multivariate logistic regression model, we found a significant relationship between the patients age at the CoCM visit initiation and patients who stayed in the intervention for 6 months or more. Specifically, for each one unit increase in age, they were 1% more likely to have a CoCM EOC lasting six months or more.

Policy Implications

Similar to work conducted in Medicaid and Medicare claims (Brown et al., 2021; Copeland et al., 2022) , this study found relatively few commercially insured individuals received a CoCM visit. The number of CoCM claims did increase over the five-year study period; however, CoCM uptake appears to be slow. In addition, CoCM EOCs were brief, with 60% of individuals receiving less than three months of care. As CoCM is an IBH model supported by significant research evidence, the lack of widespread adoption and limited billing code utilization suggests more work is needed to understand the underlying factors impacting implementation.

Continued Implementation Barriers to CoCM. Reimbursement challenges are a well-documented limitation of CoCM implementation nationwide (Carlo et al., 2020). Yet, study findings highlight that even when a payment mechanism is available via CPT billing codes, CoCM uptake is low. This suggests that barriers to CoCM implementation and adoption go beyond payment for the clinical services alone. Other financial barriers may be limiting the growth of CoCM, as others have described that the upfront costs to start up this model and administrative burden to maintain the documentation standards. Workforce shortages (Lipp et al., 2023; Lombardi et al., 2023) and lack of training (Ho et al., 2023), including training billing and administrative staff on the billing complexities of CoCM (LePoire et al., 2024), may also prevent greater uptake of CoCM. A multipronged approach to support health systems use of CoCM is likely needed to continue to expand this model of care.

CoCM Episodes of Care. Although the implementation of CoCM has been extensively studied, this is the first study to use claims data for commercially insured individuals to understand CoCM EOCs. Of the few individuals who did receive a CoCM claim, only 41% received three or more months of care. This finding could be due to difficulty with retaining individuals in the CoCM protocol or it may be explained by programs utilizing the "treat-to-target" model and perhaps patient symptoms improved around the three-month timepoint, similar to findings from Garrison et al. (2016) and Huang et al. (2024). Understanding the reason behind the shorter EOCs observed in this study is not possible given the limitations of claims data. However, following the treatment model to its fidelity is important to ensure patients receive the intended benefits of the model. Few individual differences were significantly associated with EOCs longer than three or six months of CoCM care. Future research is needed to understand factors related to the length of CoCM treatment, including duration necessary for seeing the benefits of the model, as well as what barriers prohibit longer treatment engagement if target goals were not reached.

Workforce Preparation and Training for CoCM. Although family medicine physicians did not begin as the most common provider specialty delivering CoCM, by the end of the study they comprised the greatest proportion of CoCM claims. Given that family medicine is the largest primary care physician specialty group in the U.S. (AAFP, 2024), training this specialty will likely yield expansion of CoCM. Existing work is underway to train primary care clinics and clinicians on CoCM (Gardner et al., 2024; NC AHEC, 2025). More work is needed at the education, practice, and systems levels to expand familiarity with and ease of CoCM code use. In addition to increased training and familiarity on delivering CoCM, the workforce must also be adept at engagement strategies that retain patients in CoCM to ensure the benefits of CoCM can be achieved (Meaner et al., 2020).

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Table 1. Descriptive Statistics of Individuals Who Received At Least One CoCM Claim (All Years, 2018, 2022)

	All Included Years						2018						2022					
	All		≥3 Months		≥6 Months		All		≥3 Months		≥6 Months		All		≥3 Months		≥6 Months	
Characteristic																		
Age (M/SD)	35.66 (SD: 14.8)		35.75 (SD: 14.55)		36.5 (SD: 14.62)		39.72 (SD: 13.75)		39.59 (SD: 13.82)		40.52 (SD: 13.78)		35.05 (SD: 15.17)		35.03 (SD: 14.87)		35.94 (SD: 14.89)	
Sex	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Male	5145	31.11	2027	30.17	733	30.15	176	31.71	44	32.35	15	27.78	2145	32.23	834	30.97	257	33.2
Female	11392	68.89	4691	69.83	1698	69.85	379	68.29	92	67.65	39	72.22	4510	67.77	1859	69.03	517	66.8
Location																		
Censor	4561	27.58	2051	30.53	802	32.99	34	6.13	8	5.88	5	9.26	2207	33.16	938	34.83	300	38.76
Rural	827	5	352	5.24	127	5.22	26	4.68	6	4.41	3	5.56	324	4.87	150	5.57	44	5.68
Urban	11149	67.42	4315	64.23	1502	61.79	495	89.19	122	89.71	46	85.19	4124	61.97	1605	59.6	430	55.56
Diagnosis																		
Anxiety	10044	60.74	4350	64.75	1615	66.43	281	50.63	89	65.44	37	68.52	4143	62.25	1743	64.72	531	68.6
Depression	7509	45.41	3534	52.6	1379	56.73	289	52.07	94	69.12	41	75.93	2896	43.52	1323	49.13	406	52.45
Other MH Condition	487	2.94	167	2.49	52	2.14	12	2.16	1	0.74	0	0	207	3.11	72	2.67	14	1.81
SUD	702	4.25	282	4.2	114	4.69	33	5.95	12	8.82	6	11.11	242	3.64	96	3.56	32	4.13
Trauma	2313	13.99	976	14.53	337	13.86	67	12.07	19	13.97	7	12.96	951	14.29	392	14.56	98	12.66
Billing Provider Type																		
Internal Medicine	4761	28.79	1937	28.83	727	29.91	247	44.5	52	38.24	18	33.33	1730	26	727	27	229	29.59
Multi-specialty	198	1.2	89	1.32	29	1.19	10	1.8	1	0.74	0	0	79	1.19	28	1.04	5	0.65
Family Medicine	6582	39.8	2733	40.68	998	41.05	212	38.2	66	48.53	27	50	2679	40.26	1127	41.85	329	42.51
Nurse Practitioner	1113	6.73	436	6.49	142	5.84	13	2.34	4	2.94	4	7.41	516	7.75	204	7.58	49	6.33
Other Type	3883	23.48	1523	22.67	535	22.01	73	13.15	13	9.56	5	9.26	1651	24.81	607	22.54	162	20.93

Table 2. Logistic Regression Models Examining the Odds of Patients Receiving CoCM for ≥ Three Months and ≥ Six Months.

	CoCM intervention for ≥ 3 months			CoCM intervention for ≥ 6 months		
Variable	**OR**	**95% CI**	***p***	**OR**	**95% CI**	***p***
Year	1.13	(1.1, 1.17)	<.001	0.98	(0.94, 1.02)	0.41
Age (Continuous)	1.0	(1, 1)	0.64	1.01	(1, 1.01)	<.05
Female (REF: Male)	1.05	(0.98, 1.12)	0.19	1.02	(0.93, 1.12)	0.69
Location of patients when initiating CoCM services *(REF: Rural)*						
Urban	1.01	(0.87, 1.18)	0.89	1.15	(0.93, 1.41)	0.19
Censored	0.88	(0.76, 1.02)	0.09	0.87	(0.71, 1.06)	0.16
Provider type *(REF: all other providers)*						
Internal medicine	1.04	(0.94, 1.14)	0.45	1.0	(0.87, 1.13)	0.95
Multi-specialty physician group	1.25	(0.93, 1.68)	0.14	1.0	(0.66, 1.5)	0.99
Family practice	1.05	(0.96, 1.14)	0.28	1.01	(0.89, 1.13)	0.91
Nurse practitioner	0.95	(0.83, 1.09)	0.47	0.88	(0.72, 1.08)	0.21
Mental health diagnosis						
Depressive related disorders *(REF: no depression)*	1.97	(1.84, 2.12)	<.001	1.93	(1.76, 2.12)	<.001
Anxiety related disorders *(REF: no anxiety)*	1.67	(1.55, 1.79)	<.001	1.6	(1.45, 1.77)	<.001
Trauma related disorders *(REF: no trauma disorder)*	1.61	(1.46, 1.78)	<.001	1.41	(1.23, 1.62)	<.001
Substance use disorders *(REF: no SUD)*	1.22	(1.04, 1.44)	<.001	1.31	(1.06, 1.62)	<.05
Other mental health diagnoses *(REF: no other MHD)*	1.58	(1.28, 1.93)	<.001	1.44	(1.05, 1.96)	<.05