Evaluation of the Medicare Care Choices Model

Annual Report #1

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Executive Summary

Under current Medicare policy, beneficiaries who elect the Medicare hospice benefit (MHB) must forgo payment for services intended to treat their terminal condition. Due in part to this requirement, fewer than half of all beneficiaries elect MHB at the end of life, and they often do so less than a week before death—too late in their disease trajectory to experience the full benefit of hospice care. Prior research studies have found improved quality of life, greater satisfaction with health care services, and lower rates of inpatient admissions to the intensive care unit (ICU) when beneficiaries receive hospice services that increase comfort, while also receiving treatment for their terminal diagnosis.

In 2016, the Center for Medicare & Medicaid Innovation (CMMI) in the Centers for Medicare & Medicaid Services (CMS) implemented the Medicare Care Choices Model (MCCM). CMS designed MCCM to test the effect of allowing eligible beneficiaries the option to receive supportive services from participating hospices while continuing to receive treatment for their terminal condition through fee-for-service Medicare. Beneficiaries who enroll in MCCM receive supportive care that is generally similar to what MHB offers, including nursing services, medical social services, hospice aide services, and volunteer services. MCCM, like MHB, includes bereavement counseling for enrollees and their caregivers.[1]

MCCM targets hospice-eligible beneficiaries with a diagnosis of cancer, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), or human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), and a prognosis of six months or less to live if the disease runs its expected course. Participating hospices receive $400 per beneficiary per month (PBPM) to cover the supportive care and care coordination they provide to enrolled beneficiaries.[2,3]

The evaluation of MCCM will measure whether providing additional support and care coordination under this new model improves quality of care at the end of life and increases beneficiary and caregiver satisfaction, while reducing Medicare expenditures. This report presents evaluation findings from the first two years of MCCM implementation, and beneficiary enrollment between January 1, 2016 and June 30, 2017. Due to low enrollment in this early phase, it is not yet possible to measure the impact of MCCM on outcomes at the end of life. Instead, this report focuses on model implementation.

The report addresses the following topic areas:

- *Who participates in MCCM?* We report on the number of hospices in MCCM, the number of enrolled beneficiaries, and the characteristics of both hospices and beneficiaries (Section 2).
- *What elements of care do MCCM enrollees receive?* MCCM-enrolled beneficiaries have access to their usual Medicare providers and also elements of MHB. This section describes the services

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1 However, some MHB covered services are not part of MCCM. Under the MHB, but not MCCM, hospices provide care related to the beneficiary's terminal condition, including physician services, medications, durable medical equipment (DME), and physical, occupational, and speech therapy, as needed.

2 If the beneficiary is enrolled for less than 15 days in the first month of enrollment, the MCCM hospice receives only $200 for that month.

3 https://innovation.cms.gov/initiatives/Medicare-Care-Choices/

hospices deliver to enrolled beneficiaries under MCCM, and beneficiaries' use of other Medicare-covered services (Section 3).

- *How do participating hospices implement MCCM?* Through case studies and an organizational survey, we determined how hospices designed and implemented their care choices program under MCCM, and describe the various approaches used, including challenges and obstacles they faced (Section 4).
- *How do participating hospice staff, referring providers, and enrollees perceive MCCM?* We report on the perceptions of key stakeholders, ascertained through interviews with hospice staff, referring providers, and enrolled beneficiaries and their caregivers (Section 5).
- *What do we know about transitions from MCCM to hospice?* We examine the extent to which MCCM enrollees transition to MHB after enrolling in MCCM, and the length of time they are enrolled in MHB (Section 6).
- *Lessons learned and next steps.* We conclude with the key takeaways and next steps for evaluation (Section 7).

Key Findings for the Report Include

- Hospices successfully implemented MCCM, but enrollment was lower than expected.
- Due to low enrollment, it is too early to measure any impacts MCCM has on outcomes at the end of life.
- Hospice staff, referring providers, and MCCM enrollees generally expressed high levels of satisfaction with the concept of MCCM.

We summarize important findings from each section below.

Who Participates in MCCM? (Section 2)

- CMS initially accepted 141 hospices into the model in 2015, and randomly assigned them to two equal-sized cohorts. Hospices in the first cohort began MCCM implementation on January 1, 2016, while hospices in the second cohort began implementation on January 1, 2018. Hospices in the two cohorts are similar in terms of ownership, location, size, and other characteristics. The hospices that volunteered for MCCM are, however, notably different from hospices that did not volunteer for MCCM. In particular, 68 percent of MCCM hospices are non-profit, compared with only 22 percent of non-MCCM hospices; and nearly 80 percent of MCCM hospices are large, compared with only 30 percent of non-MCCM hospices. This suggests that MCCM hospices are not representative of all Medicare hospices nationwide. This has implications for the generalizability of evaluation findings, and we will explore this issue further as the model progresses.
- One quarter (26.2 percent) of hospices have withdrawn from MCCM. As of December 2017, 37 hospices had either stopped participating (cohort 1) or decided not to begin implementation (cohort

2);[4] and 104 hospices remained in MCCM: 53 in cohort 1 and 51 in cohort 2. Hospices that withdrew from the model said their main reason for doing so was the difficulty of enrolling beneficiaries due to MCCM eligibility criteria. Others decided that the $400 PBPM payment was insufficient to cover the costs of model implementation and services for beneficiaries.

- A total of 1,092 beneficiaries enrolled in MCCM between January 1, 2016 and June 30, 2017. Enrollment was lower than expected, which may be due in part to MCCM eligibility criteria CMS implemented to ensure that hospices enrolled only those beneficiaries who were clinically appropriate for MCCM and that the model could be evaluated. For example, MCCM excludes beneficiaries in Medicare managed care plans because encounter data are not available for analysis. MCCM also requires beneficiaries to have had certain patterns of care prior to enrolling, such as prior use of hospital services. Participating hospices reported that these requirements made many interested beneficiaries ineligible for the model.
- Nearly one in four (24 percent) of MCCM-eligible referrals elected to go directly into traditional hospice care rather than starting with MCCM. Since one goal of MCCM is to increase access to supportive care services provided by hospice, declining MCCM in favor of MHB is a positive outcome.
- The beneficiaries enrolled in MCCM tended to be younger than MCCM-eligible beneficiaries not enrolled in the model (age 78, on average, in MCCM versus age 83 among those not in MCCM). Those who enrolled were also more likely to live in the Northeast or the Midwest, compared with those not in the model, and were more likely to be diagnosed with cancer than with the other MCCM conditions (CHF, COPD, and HIV/AIDS). We will account for these differences when we measure the impacts of MCCM.

What Elements of Care Do MCCM Enrollees Receive? (Section 3)

- MCCM hospices conduct an in-person initial assessment, followed by check-ins and periodic comprehensive assessments (per model requirements). On average, enrolled beneficiaries who died prior to June 30, 2017, remained in MCCM for 64 days and received an average of 10.6 visits, phone check-ins, and/or mail-email contacts per month from hospice staff. In-person visits comprised about 75 percent of contacts. The services provided varied depending on the needs of the beneficiary.
- We explored patterns in the use of other Medicare-covered services. Nearly 40 percent of MCCM-enrolled beneficiaries who died during the period of January 1, 2016 through June 30, 2017 had also received services from home health agencies. In the last 90 days of life, MCCM enrollees on average, had 1.5 emergency department (ED) visits, 1.2 inpatient hospitalizations, and $30,741in total Medicare expenditures. In the future, we will measure the impact of MCCM on use of health care services and on Medicare expenditures.

How Do Participating Hospices Implement MCCM? (Section 4)

- Hospices have considerable flexibility in designing and implementing their care choices program under MCCM. Staff we interviewed at several MCCM hospices indicated that they used a registered

[4] As of April 1, 2018, two additional cohort 1 hospices and six additional cohort 2 hospices were planning to withdraw in 2018.

nurse (RN) and social worker to serve MCCM enrollees, with other disciplines from the hospice team contributing as needed. Almost all of the hospices participating in MCCM reassigned existing staff rather than hiring new staff. Many cross-trained the entire interdisciplinary hospice team to serve both MHB and MCCM enrollees, and ensured that the same care team worked with a beneficiary as he or she transitioned from MCCM to hospice care.

- Challenges that MCCM hospices reported included model eligibility criteria that limited which beneficiaries could enroll; costs greater than the $400 per beneficiary monthly payment; data-reporting requirements; and the complexities of coordinating medications and durable medical equipment (DME) for MCCM enrollees. MHB covers medications and DME, but MCCM does not. Because participating hospices were concerned about the eligibility criteria, CMS relaxed several requirements, and enrollment increased somewhat after these changes occurred.
- MCCM hospices enrolled beneficiaries from a variety of sources. Physicians' offices referred about half of MCCM enrollees, followed by home health agencies, hospitals, EDs, and skilled nursing facilities. Over 40 percent of the physicians referring MCCM enrollees were oncologists; and nearly 40 percent were internists and family medicine physicians.
- MCCM hospices that had the highest levels of enrollment tended to have one centralized process for determining eligibility for MCCM and all other programs the hospice offers (MHB, palliative care, etc.) Referring providers preferred this centralized eligibility/intake process because it increased the likelihood that their hospice would find some type of service (MCCM or another service) that would meet their beneficiaries' needs. Hospices that used their existing referral relationships with other providers, or leveraged their affiliation with health systems, were also better able to enroll beneficiaries and implement MCCM.

How Do Participating Hospice Staff, Referring Providers, and Enrollees Perceive MCCM? (Section 5)

- Hospice staff, referring providers, and MCCM enrollees all generally expressed high levels of satisfaction with the concept of MCCM.
- Several MCCM hospice staff told us they felt professional satisfaction in having the time to develop relationships with terminally ill beneficiaries who were not yet ready for hospice, rather than beginning the relationship when beneficiaries are actively dying (as often happens in hospice care). Hospice staff believe these relationships ease the beneficiary's transition to hospice care. However, concerns with the MCCM eligibility requirements, reporting burden, and reimbursement reduced satisfaction for some participating hospices.
- The referring providers that we interviewed shared largely positive perceptions of MCCM, and appreciated the additional support and in-home services their beneficiaries received from the participating hospices. They also felt that the model may have reduced the number of visits to the ED by providing MCCM enrollees 24/7 access to hospice clinicians. Some MCCM hospices suggested that providers were reducing inappropriate referrals to MCCM as they (along with the MCCM hospices) learned which beneficiaries would meet eligibility requirements and which would not.
- MCCM enrollees and their caregivers whom we interviewed were quite satisfied with MCCM. They reported improved quality of life and peace of mind from having 24/7 access, and from having assistance managing the transition from active medical treatment to the realities of a terminal

diagnosis. Enrollees and their caregivers appreciated the care coordination aspect of MCCM as well as the emotional support.

What Do We Know about Transitions from MCCM to Hospice? (Section 6)

- CMS designed MCCM to improve the quality of care for beneficiaries at the end of life. We assessed the extent to which MCCM helps beneficiaries transition to MHB before their last days of life. The majority of MCCM enrollees who died prior to June 30, 2017, had left MCCM and transitioned to MHB (83.2 percent). These beneficiaries were, on average, enrolled in MCCM for 62.0 days, followed by 30.5 days in MHB.

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List of Exhibits

Acronym List

AIDS	Acquired Immunodeficiency Syndrome
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CCN	CMS Certification Number
CECS	Caregiver Experience of Care Survey
CHF	Congestive Heart Failure
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
CTI	Certification of Terminal Illness
DME	Durable Medical Equipment
ED	Emergency Department
EHR	Electronic Health Record
HCC	Hierarchical Condition Category
HIV	Human Immunodeficiency Virus
ICD	International Classification of Disease
ICU	Intensive Care Unit
MAC	Medicare Administrative Contractor
MCCM	Medicare Care Choices Model
MHB	Medicare Hospice Benefit
N	Number
PBPM	Per Beneficiary Per Month
RN	Registered Nurse
SNF	Skilled Nursing Facility

1. Introduction

1.1 MCCM Background

Terminally ill beneficiaries and their caregivers face a difficult choice when considering the Medicare hospice benefit (MHB). Payment rules require beneficiaries to forgo treatment of their terminal condition in order to receive hospice services. Due in part to this requirement, fewer than half of all Medicare beneficiaries elect MHB at the end of life, and they often do so too late in their disease trajectory to experience the full benefit of hospice care. Prior research studies have found improved quality of life, higher satisfaction with health care services, and lower rates of inpatient admissions to the intensive care unit (ICU) when beneficiaries can receive hospice services that increase comfort concurrently with treatment for their terminal condition.[5,6,7,8,9,10,11,12,13]

Launched in 2014 by the Center for Medicare & Medicaid Innovation (CMMI) in the Centers for Medicare & Medicaid Services (CMS), the Medicare Care Choices Model (MCCM) invited hospices to test the effect of allowing eligible beneficiaries the option to receive supportive services from participating hospices while continuing to receive treatment for their terminal condition, if desired, through fee-for-service Medicare. Under this new model, implemented in 2016, MCCM hospices provide symptom and treatment support, and care coordination through the following services, which are available 24 hours a day, seven days a week:[14]

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5 Temel, JS, Greer, JA, Muzikansky, A (2010). Early palliative care for patients with metastatic non-small-cell lung cancer. *New England Journal of Medicine*, *363*, 733-742.

6 Bakitas, M, Lyons, KD, Hegel, MT (2009). The project ENABLE II randomized controlled trial to improve palliative care for rural patients with advanced cancer: baseline findings, methodological challenges, and solutions. *Palliative & Supportive Care*, *7*, 75-86.

7 Brumley, R, Enguidanos, S, Jamison, P (2007). Increased satisfaction with care and lower costs: results of a randomized trial of in-home palliative care. *Journal of the American Geriatrics Society*, *55*, 993-1000.

8 Krakauer, R, Spettell, CM, Reisman, L, Wade, MJ (2009). Opportunities to improve the quality of care for advanced illness. *Health Affairs*, *28*, 1357-1359.

9 Spettell, CM, Rawlins, WS, Krakauer, R (2009). A comprehensive case management program to improve palliative care. *Journal of Palliative Medicine*, *12*, 827-832.

10 Morrison, RS, Dietrich, J, Ladwig, S (2011). Palliative care consultation teams cut hospital costs for Medicaid beneficiaries. *Health Affairs*, *30*, 454-463.

11 Penrod, JD, Deb, P, Dellenbaugh, C (2010). Hospital-based palliative care consultation: effects on hospital cost. *Journal of Palliative Medicine*, *13*, 973-979.

12 Brody, AA, Ciemins, E, Newman, J, Harrington, C (2010). The effects of an inpatient palliative care team on discharge disposition. *Journal of Palliative Medicine*, *13*, 541-548.

13 Morrison, RS, Penrod, JD, Cassel, JB (2008). Cost savings associated with US hospital palliative care consultation programs. *Archives of Internal Medicine Journal Impact & Description*, *168*, 1783-1790.

14 Request for Applications, Medicare Care Choices Model. https://innovation.cms.gov/files/x/mccm-rfa.pdf

- Nursing
- Social work
- Hospice aide services
- Hospice homemaker services
- Direct services from volunteers
- Access to a chaplain
- Bereavement counseling
- Nutritional support
- Respite care (in home only)

Ultimately, the success of this model could alter the current delivery of care for terminally ill Medicare beneficiaries, and improve the quality of their end-of-life care.

MCCM targets hospice-eligible Medicare beneficiaries with a diagnosis of advanced cancer, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), and a prognosis of six months or less to live if the disease runs its expected course.

This first report of the MCCM evaluation addresses the following topics:

- Who participates in MCCM? (Section 2)
- What elements of care do MCCM enrollees receive? (Section 3)
- How do participating hospices implement MCCM? (Section 4)
- How do participating hospice staff, referring providers, and enrollees perceive MCCM? (Section 5)
- What do we know about the transitions from MCCM to hospice? (Section 6)
- Lessons learned and next steps (Section 7)

Future reports that have more years of data and more MCCM enrollees will measure the impact of MCCM by comparing outcomes for MCCM users with those of a matched group of non-MCCM users.

1.2 Overview of MCCM

Section 3021 of the Affordable Care Act authorizes CMS, through CMMI, to test innovative payment and service delivery models that have the potential to reduce Medicare expenditures while maintaining or improving the quality of care for Medicare beneficiaries. Through the MCCM evaluation, CMS will determine whether providing additional support and care coordination for beneficiaries at the end of life improves quality of life and beneficiary and caregiver satisfaction while reducing Medicare expenditures. The target population for MCCM is Medicare beneficiaries who are eligible for MHB.[15] Beneficiaries who enroll in MCCM retain the option to elect MHB at any time. Entry to MHB allows beneficiaries to experience the full array of hospice services, beyond those offered under MCCM.

[15] Current criteria for MCCM eligibility, in addition to MHB eligibility (six-month prognosis documented with a Certificate of Terminal Illness) and not having elected the MHB or Medicaid hospice benefit in the last 30 days, are that the beneficiary:

- has been enrolled in Medicare fee-for-service Part A and Part B as primary insurance for the past 12 months
- has a diagnosis of terminal cancer, COPD, HIV/AIDS, or CHF
- has had at least one hospital encounter in the last 12 months
- has had at least three office visits with any provider (defined as primary care or specialty provider)
- has lived in a traditional home continuously for the last 30 days
- resides within the service area of the participating hospice

Hospices participating in MCCM receive a $400 per beneficiary per month (PBPM) payment to provide symptom and treatment support, care coordination, and case management services to MCCM enrollees. If the beneficiary is enrolled for fewer than 15 days in the first calendar month of enrollment, the MCCM hospice receives only $200 for that month. In the month a hospice discharges[16] a beneficiary from MCCM, CMS pays the hospice $400 regardless of the days of service provided, as long as one service was provided during that month. The PBPM payment is the total payment for all MCCM services the hospice provides to the beneficiary in a given month.

MCCM offers services that are similar to those that MHB offers, but the two differ in important ways. We outline these differences in Exhibit 1.1 and Exhibit 1.2.

Due to robust interest in the model, CMS increased the number of hospices accepted into MCCM from 30 Medicare-certified hospices to 141 hospices and extended the model period from three years to five years. For evaluation purposes, CMS randomized participating hospices to one of two cohorts. Cohort 1 hospices were eligible to enroll Medicare beneficiaries into MCCM on January 1, 2016, and cohort 2 hospices became eligible for MCCM enrollment on January 1, 2018. The model is scheduled to run through 2020.

As of December 2017, 18 hospices had withdrawn and 53 hospices remained in cohort 1. From January 1, 2016, through June 30, 2017, health care providers referred more than 5,000 Medicare beneficiaries to these participating hospices for MCCM, and 1,092 eligible beneficiaries enrolled in the model (see Section 2.2.3 for a discussion of factors affecting enrollment rates). Another 51 hospices in cohort 2 began implementing MCCM on January 1, 2018.[17]

[16] Discharge could involve enrolling in MHB (which is the most common reason), withdrawal from MCCM without enrolling in MHB, or death.

[17] As of April 1, 2018, two additional cohort 1 hospices and six additional cohort 2 hospices were planning to withdraw in 2018.

Exhibit 1.1: Goals, Eligibility, and Payment for the Medicare Hospice Benefit and MCCM

	Medicare Hospice Benefit	MCCM
Goals of care	Addresses physical, intellectual, emotional, social, and spiritual needs; but Medicare does not pay for treatment related to the terminal condition.	Focuses on improving comfort and quality of life, and beneficiaries can continue to receive treatment for their terminal condition.
Eligibility requirements "at a glance"	Beneficiaries must have a terminal prognosis of six months or less to live if the terminal illness runs its normal course, and a certification of terminal illness (CTI) signed by their physician.	
	Medicare beneficiaries living at home or in any type of setting, including a skilled nursing facility/nursing facility, intermediate care facility for the developmentally disabled, or assisted living facility. Enrollees may have any Medicare coverage. Medicare managed care plans revert to fee-for-service Medicare when the beneficiary elects hospice.	Medicare beneficiaries living in a traditional home in the end stage of cancer, chronic obstructive pulmonary disease, human immunodeficiency virus/acquired immunodeficiency syndrome, or congestive heart failure. Enrollees must have Medicare Parts A & B as primary payer. Cannot be enrolled in Medicare managed care plans.
Payment structure	Per diem basis for all related care at the following rates (fiscal year 2018): • Routine home care: $192.78/day for days 1–60; $151.41/day for days 61+ • General inpatient care: $743.55/day • Continuous home care: $40.68/hour • Inpatient respite care: $172.78/day • Limited co-pays (i.e., $5 per prescription and five percent for inpatient respite care)	Per beneficiary per month payment: • $400/month for full months of enrollment (15 days or more), and $200/month for the initial month if it is less than 15 calendar days of enrollment. CMS pays $400 for the final month of enrollment, regardless of duration but must provide at least one service in that month to the beneficiary. • Enrollees remain responsible for usual share of Medicare costs, including co-pays.

Source: https://www.medicare.gov/coverage/hospice-and-respite-care.html and https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10131.pdf

Exhibit 1.2: Services Provided by the Medicare Hospice Benefit and MCCM

	Medicare Hospice Benefit	MCCM
Beneficiary receives care for their terminal diagnosis	No	Yes, as covered under Medicare Parts A & B.
Levels of care and services offered	Four levels of care are offered: • Routine home care: hospice services delivered at the beneficiary's residence • General inpatient care: services for acute symptom management that cannot be provided in another setting • Continuous home care: care provided in the residence for acute symptom management as necessary to maintain the beneficiary at home between 8 and 24 hours a day • Inpatient respite care: provides temporary respite for the primary caregiver for a maximum of five consecutive days	MCCM supportive services are similar to services that the Medicare hospice benefit provides through routine home care.
Other services	Nursing, social work, aide services, volunteers, bereavement services/chaplain, counseling (nutritional, spiritual, emotional)	Nursing, social work, aide services, volunteers, bereavement services/chaplain, counseling (nutritional, spiritual, emotional)
Respite care	Inpatient	In-home only
Durable medical equipment	Yes	No. Available as covered under Medicare Part B.
Medications	Yes. Covers all medications to relieve pain and manage symptoms related to the beneficiary's terminal condition. Medications that are unrelated to the terminal condition are available through the beneficiary's usual resources (including Medicare Part D, other insurance, or private pay).	No. Available through the beneficiary's usual resources (including Medicare Part D, other insurance, or private pay).
Therapy	Yes. Physical therapy, occupational therapy, and speech-language pathology services are provided as related to the terminal condition.	No. Available as covered under Medicare Part B.
Physician services	Yes. The hospice medical director and physician staff direct the beneficiary's care in collaboration with the beneficiary-identified attending physician, if any. The attending (non-hospice) provider can continue to see the beneficiary and bill Medicare separately for services and conditions not related to the terminal illness.	No. Available as covered under Medicare Part B.

Source: https://www.medicare.gov/coverage/hospice-and-respite-care.html and https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10131.pdf

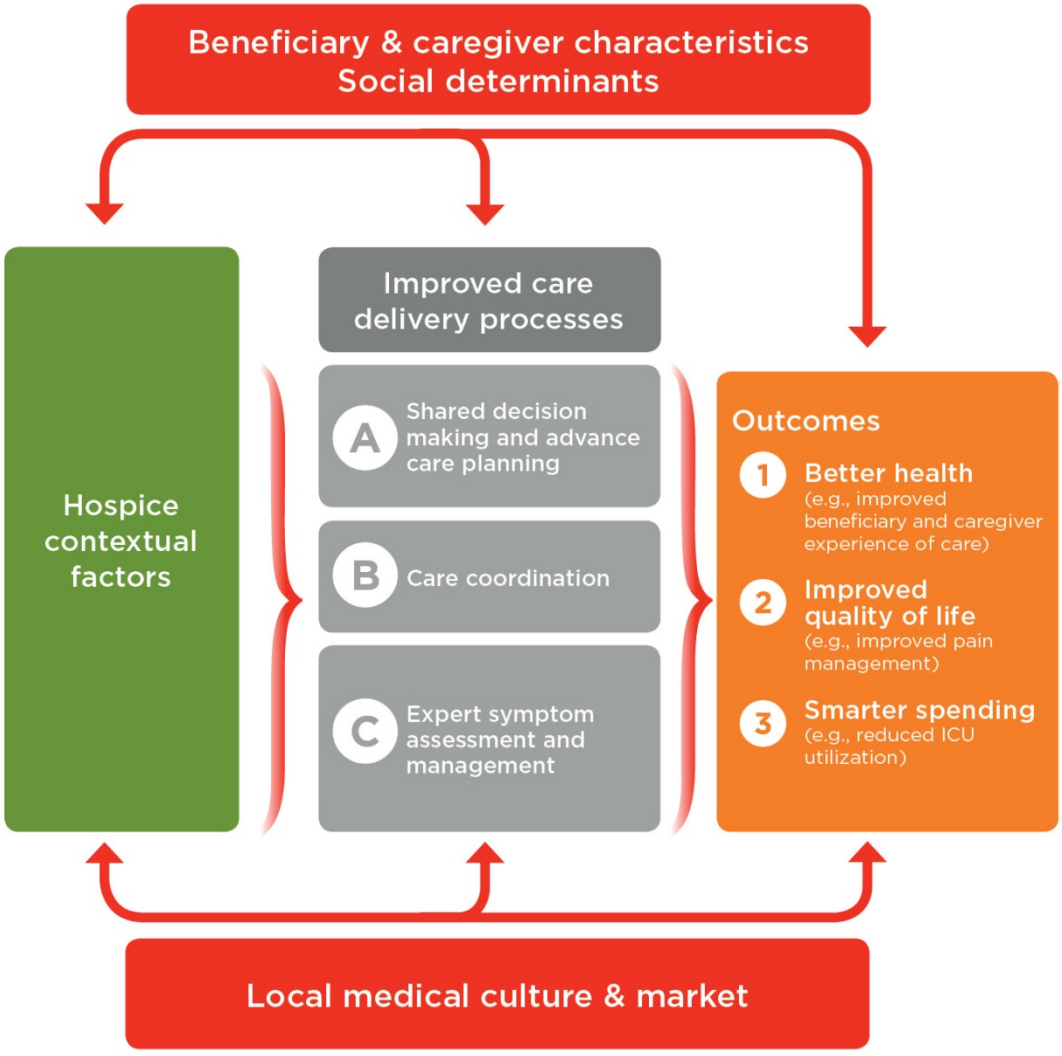
1.3 MCCM Evaluation Overview

CMS contracted with Abt Associates and our partners to conduct a robust, mixed-methods evaluation of MCCM, and to help CMS determine whether the model increases access to supportive services, improves

coordination of care among hospice and other community providers, enhances quality of care and satisfaction with end-of-life care, and reduces Medicare expenditures.

We based the conceptual framework that informs this evaluation design on a validated model of treatment intensity and quality of end-of-life care, as shown in Exhibit 1.3. For MCCM hospices to produce better health outcomes, improve quality of life, and reduce Medicare spending, they must provide high-quality care that improves treatment and management of symptoms. MCCM hospices also must educate beneficiaries and help them make informed decisions based on an understanding of their prognosis and treatment options. Additionally, MCCM hospices need to enhance care coordination and ensure that medical care emphasizes the needs and preferences of beneficiaries and their caregivers.

Exhibit 1.3: MCCM Conceptual Framework



The evaluation will synthesize findings from a variety of data sources, including Medicare claims and administrative data, caregiver and hospice staff surveys, and case studies, in order to:

- Understand the characteristics of hospices participating in MCCM and the MCCM-enrolled beneficiaries they serve, as compared with hospices and beneficiaries not participating in MCCM
- Describe how hospices participating in MCCM obtain referrals and deliver care, in contrast to typical delivery of care under MHB
- Compare the PBPM payment made to MCCM hospices for their provision of MCCM services to the costs they incur in delivering those services
- Evaluate whether beneficiaries enrolled in MCCM elect MHB at a higher rate, and earlier in their terminal disease trajectory, than those not enrolled in MCCM
- Estimate the impact of MCCM on Medicare expenditures
- Assess beneficiary and caregiver satisfaction with MCCM services
- Evaluate whether enrolled beneficiaries had better health outcomes than those not enrolled in MCCM, and whether MCCM beneficiaries received better quality of care at the end of life

We provide the complete set of MCCM evaluation research questions in Appendix B. We show the research questions addressed in this report in Exhibit 1.4.

Exhibit 1.4: MCCM Evaluation Research Questions

Research Domain	Question	Section of this Report
Implementation effectiveness	1. Describe the characteristics of beneficiaries enrolled in the model, the participating hospices, and their markets.	2.1, 2.3
	2. What are the reasons for beneficiary participation or non-participation?	2.3.2
	3. Are there any factors that limited the number of beneficiaries enrolled in the model? If so, to what degree?	2.2.4
	4. What are the characteristics of those beneficiaries and hospices that withdrew from the model, and why did they leave?	2.3.1
	5. What are the elements of care delivered under this model?	3
	6. How long did it take to implement the organizational changes necessary to deliver services?	4.1.1
	7. What referral patterns are observed?	4.3
	8. What costs do hospices incur in providing services, and beneficiaries incur in receiving services?	4.1.5
	9. What features of hospices' administration and structure account for the successes or failures of their implementation of the model?	4.4
	10. How effective were learning system activities in preparing hospices to succeed?	4.4.1
	11. What participant, provider, and beneficiary perceptions contribute to or hinder the success of this model?	5
Utilization and costs	13. Do the beneficiaries in the model elect the Medicare or Medicaid hospice benefit at a higher rate and earlier in their disease?	6
	15. Do beneficiaries in the model receive different patterns of supportive services and life-prolonging treatment?	3.3
Quality of care and health outcomes	19. Do beneficiaries in the model and their caregivers express greater satisfaction and improved experiences with their care?	5

Notes: This report addresses a subset of research questions. Exhibit B.1 in Appendix B contains the complete set of research questions for the evaluation.

1.3.1 Approaches to Using Administrative Data

One purpose of this report is to examine characteristics of MCCM participants and enrollees. To provide a point of comparison, we used the MCCM eligibility criteria as applied to Medicare administrative data to select a comparison group for the enrollees.

From January 1, 2016, through June 30, 2017, 1,092 Medicare beneficiaries enrolled in MCCM. Of these beneficiaries, 595 died before June 30, 2017. The total enrolled beneficiaries, and the subset of those who died (referred to in this report as decedents), constitute the two MCCM-enrolled populations that we use for analyses within this report.

To understand how MCCM enrollees differ from non-enrollees—which will have implications for future reports where we measure the impact of MCCM on various outcomes—we identified Medicare beneficiaries who would have been eligible for MCCM had it been offered in their communities.

Nationwide, 305,375 beneficiaries would have been eligible for MCCM[18] but did not enroll in the period from January 1, 2016, through June 30, 2017.

We verified MCCM eligibility using the following criteria:

- Enrolled in Medicare fee-for-service Part A and Part B as primary insurance for the past 12 months
- A diagnosis as indicated by specific International Classification of Disease (ICD) 9/10 codes for terminal cancer, COPD, HIV/AIDS, or CHF
- At least one hospital encounter (either emergency department (ED) visit, observation stay, ICU stay, or hospital inpatient admission) in the last 12 months
- At least three office visits with any provider (defined as primary care or specialty provider) in the last 12 months
- Has not elected MHB within the last 30 days
- Lived in a traditional home continuously for the last 30 days; a beneficiary who is in a skilled nursing facility (SNF), assisted living facility, or inpatient rehab facility that is not their permanent residence can enroll in MCCM 30 days after discharge from that setting

Using these eligibility criteria, we attempted to select a non-MCCM comparison group of beneficiaries that is similar to the MCCM group. However, not all MCCM eligibility requirements can be determined through claims data. For example, a criterion for enrolling in MCCM is that a community provider certifies that the beneficiary will be within six months of death if his or her end-stage condition runs its usual course; this cannot be ascertained through claims data. In addition, claims data does not contain information on factors such as the beneficiary's preference for treating the terminal illness versus receiving only supportive services. As a result, comparisons between MCCM enrollees and unenrolled MCCM-eligible beneficiaries are necessarily descriptive and it is premature to draw conclusions from differences between these groups. Future evaluation reports will use matching techniques to rigorously estimate the impact of the model.

We list the full set of secondary data sources used in this report in Technical Appendix A, Section A.3.[19] One important data source that is unique to MCCM is the MCCM portal, operated by the MCCM implementation contractor. MCCM hospices use the portal to enter information about referrals and enrollment. The MCCM portal captures information about participating hospices' characteristics,

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[18] These are beneficiaries who died between January 1, 2016 and June 30, 2017. There were three eligibility criteria that we omitted; the first was residence in the service area of a participating hospice (we excluded this to determine the nationwide count of MCCM-eligible individuals), the second was a prognosis of death within six months certified by a physician, and the third was prior use of the Medicaid hospice benefit. To approximate terminal prognosis, we verified the beneficiary's eligibility for the other MCCM criteria on the date six months prior to their death. Although we know the individual died within six months of that date, it does not mean a physician would have judged them to have six months or less to live (the actual criterion), but it serves as a reasonable proxy for a prognosis of death within six months. Through December 2017, only three referrals were deemed ineligible because they had used the Medicaid hospice benefit in the 30 days before MCCM enrollment.

[19] Appendix A describes the development of the analytic files we use for our analyses. It also includes a more in-depth explanation of the populations examined, input data files used, data cleaning steps, and the construction of quantitative performance measures.

characteristics of referred beneficiaries, beneficiaries' enrollment status and discharge status, encounters and services provided by the MCCM hospice to the beneficiary, whether the beneficiary has a caregiver at home, and measures of quality. MCCM hospices are required to report information about the beneficiaries and services no later than the seventh day of the month after each referral, enrollment, encounter, or discharge.

Our mixed-methods evaluation also includes primary data collected directly from hospice staff, beneficiaries, and other stakeholders, as described below.

1.3.2 Case Studies and Other Qualitative Data Collection

We used primary data collected through case studies, telephone interviews, and surveys to answer research questions that we cannot address with existing secondary data. An overview of the primary data collection activities we conducted during the first year of the evaluation appears in Exhibit 1.5, the findings of which are included in this report. During 10 case studies with cohort 1 hospices, we interviewed a number of hospice staff, including hospice leaders and MCCM care team members. We also interviewed community providers who referred beneficiaries to MCCM, as well as MCCM enrollees and their caregivers. Because cohort 2 hospices were not yet implementing MCCM during the period covered by this report, we conducted telephone interviews with hospice leaders in eight cohort 2 hospices to discuss their planning efforts for MCCM implementation. We conducted telephone interviews with a subset of six cohort 1 hospices that had low MCCM enrollment to explore reasons for the low enrollment. Finally, we conducted telephone interviews with 18 hospices that withdrew from MCCM, to understand their experiences and reasons for withdrawal.

We coded themes from the information gathered during interviews and case studies, using the qualitative analytic software NVivo. The evaluation team analyzed emergent themes and experiences. It is important to note that we base our analyses on the limited number of case studies and interviews shown in Exhibit 1.5, and that any findings from those analyses may not be generalizable to the entire group of MCCM hospices and enrollees. We consider this information preliminary and not necessarily representative of all MCCM participants. We include findings in this report only if interviewees from more than one MCCM hospice described similar experiences and provided similar information. Our approach to analyzing these data is in Appendix C, and Appendix F presents a matrix of findings from all of the qualitative data we collected in the first year of the evaluation.

Exhibit 1.5: Qualitative Data Collection Activities during Year 1 of the MCCM Evaluation

Data Collection Activity	Number Conducted in Year 1	Objectives
Cohort 1 hospice case studies (in-person)	10	Gather front-line qualitative information on MCCM implementation and the impact MCCM may be having on the local hospice and beneficiary population.
Cohort 2 hospice case studies (telephone)	8	Discuss the hospice's planning for MCCM implementation, including current staffing and services offered.
Low enrollment interviews (telephone)	6	Explore barriers the hospice is facing in enrolling beneficiaries into MCCM, including whether programs available in the service area may have less-stringent requirements than MCCM and therefore 'siphon' beneficiaries away from MCCM.
Withdrawn interviews (telephone)	18 (see table note)	Understand the circumstances and experiences that led the hospice to withdraw from MCCM, including lessons learned, and/or suggested programmatic changes that might improve the experience for hospices continuing to participate in the model.

Source: Qualitative data collection, March–December 2017.

Note: Other sections of this report present information on all 37 hospices that had withdrawn from MCCM through December 31, 2017. The evaluation team reaches out to all of the hospices that withdraw from MCCM, with a request to participate in a telephone interview about their experiences. Six hospices refused to participate in an interview for evaluation purposes. In four cases, hospices with separate CMS certification numbers (CCNs) were part of the same parent organization (i.e., four organizations with multiple CCNs). In these examples, we conducted only one interview but applied the information to multiple CCNs. Furthermore, Abt did not interview the six hospices that withdrew from the model prior to the start of the evaluation contract. As a result, the number of withdrawn interviews included in this report does not match the total number of withdrawals from the model.

1.3.3 Organizational Survey

The organizational survey collected information on the characteristics and organizational structure of MCCM-participating hospices and a matched group of non-MCCM hospices. Survey items address:

- Hospice staff experience coordinating care with community providers whose goal is to extend life
- Changes the hospice made to implement MCCM
- Implementation challenges
- Whether MCCM hospices are partnering with palliative care programs for enrollees who have advanced illnesses and have not yet elected hospice

We surveyed cohort 1 and cohort 2 hospices, and provide results in this report. A comparison survey of non-MCCM hospices is under way and results will be included in a future evaluation report. We fielded the cohort 1 survey between September and December 2017, toward the end of the second year of model implementation for cohort 1. We fielded the cohort 2 survey during the same period, prior to the start of cohort 2 implementation, but after an in-person MCCM training held at CMS. The cohort 2 survey asked about anticipated plans for implementation activities, especially changes to the referral process for MCCM. A second round of the organizational survey will be conducted in mid-2018 to learn how cohort

2 hospices actually implemented the model, and to compare planned approaches to implementation with actual implementation. Additionally, we will send the second round survey to cohort 1 hospices to identify any changes that occurred during MCCM, or to explore additional topics that we did not cover in the first survey.

A summary of the number of surveys sent and the response rate appears in Exhibit 1.6. For more information on the organizational survey, please see Appendix D.

Exhibit 1.6: Response Rates from the Year 1 Organizational Survey

Survey Group	Number of Surveys Sent	Number (%) of Surveys Completed
MCCM cohort 1	58	49 (84.4%)
MCCM cohort 2	55	45 (81.8%)
Total	113	94 (83.2%)

Source: Cohort 1 and 2 organizational survey fielded September–December 2017. Surveys were sent to hospices active in the model as of August 2017.

1.3.4 Caregiver Experience of Care Survey

To assess the experiences of beneficiaries served by hospices participating in MCCM, we are administering a modified version of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Hospice Survey, called the Caregiver Experience of Care Survey (CECS). The CECS addresses the degree to which beneficiaries in the model receive better quality of care and higher quality of life (and of death), and whether beneficiaries in the model and their caregivers have better care experiences than comparable beneficiaries who received traditional hospice care alone. The core content of the CECS is identical to the CAHPS Hospice Survey, with the addition of supplemental questions that address issues of particular interest for the MCCM evaluation.

During the first year of the evaluation, we designed and tested the CECS. Survey administration began in January 2018 for caregivers of MCCM enrollees[20] who had died in the fall of 2017, and results were not available in time for this report. Future evaluation reports will include detailed information on the findings from the CECS.

1.4 Organization of This Report

This report includes descriptive findings from the MCCM evaluation. Section 2 presents information on MCCM participation (both hospices and beneficiaries) and enrollment. Section 3 describes the elements of care MCCM enrollees receive. Section 4 describes how participating hospices are implementing MCCM, including their referral patterns and organizational features associated with implementation effectiveness in MCCM. Section 5 presents findings on the perceptions of hospice staff, referring providers, and beneficiaries involved in MCCM. Finally, Section 6 provides information on transitions to traditional hospice care after MCCM. Section 7 discusses these findings in the context of lessons learned, and next steps to take in the MCCM evaluation and the content of future reports.

[20] We also survey a comparison group of caregivers to hospice beneficiaries who received care from non-MCCM hospices prior to their deaths.

2. Who Participates in MCCM?

Medicare-certified hospices applied to participate in MCCM, and CMS selected hospices for the model based on their experience with care coordination and case management, and their ability to involve beneficiaries and caregivers in shared decision making.[21] Continued participation in MCCM over time requires operational capacity, a steady stream of referrals from providers, and leadership engaged in and committed to MCCM. In this section, we describe the characteristics of MCCM hospices and enrolled beneficiaries. We discuss why hospices and beneficiaries chose to participate in MCCM, and why some hospices have withdrawn from the model. We also explore trends in MCCM enrollment and identify recruitment and enrollment challenges, as well as beneficiaries' reasons for leaving MCCM.

Key Findings about MCCM Participation

- Hospice participation: CMS initially accepted 141 hospices into the model in 2015, and randomly assigned 71 hospices to cohort 1 and 70 hospices to cohort 2. A total of 104 hospices remained in MCCM as of December 31, 2017: 53 in cohort 1 and 51 in cohort 2. (Section 2.1.1)
- Eighteen cohort 1 hospices and 19 cohort 2 hospices withdrew before 2018. Reasons for withdrawal included concerns about the MCCM eligibility criteria, reporting requirements, and adequacy of the $400 per beneficiary per month payment. (Section 2.1.2)
- Hospices in the two cohorts were alike in ownership type, location, and size; but they were unlike other hospices that chose not to participate in MCCM, which may limit generalizability of findings to the entire nation. In particular, 68 percent of MCCM hospices were non-profit, compared with only 22 percent of non-MCCM hospices; and nearly 80 percent of MCCM hospices were large, compared with only 30 percent of non-MCCM hospices. (Section 2.1.3)
- Enrollment: A total of 1,092 beneficiaries enrolled in MCCM between January 1, 2016 and June 30, 2017; and 595 (54.5 percent) of these enrollees had died as of June 30, 2017. (Section 2.2)
- Nearly one in four (24 percent) of MCCM-eligible referrals elected to go directly into traditional hospice care rather than starting with MCCM. Since one goal of MCCM is to increase access to supportive care services provided by hospice, declining MCCM in favor of MHB is a positive outcome. (Section 2.2)
- Beneficiary enrollment into MCCM was lower than anticipated, and 8 out of 71 hospices were responsible for the majority of enrollment (58.6 percent). Many other hospices reported challenges in recruiting beneficiaries who met all eligibility criteria, and in determining eligibility in a timely fashion. Nearly 30 percent had zero enrollment as of June 30, 2017. (Section 2.2.3)
- MCCM enrollees were younger than those who were eligible but did not enroll (age 78 in MCCM, on average, compared with age 83 among those not in MCCM). Enrollees were also more likely to be dying of cancer (without other comorbidities), and to live in the Northeast or Midwest, than was true for beneficiaries who were eligible but did not enroll. We will take these differences into account in the evaluation. (Section 2.3.1)
- The most common reason that enrollees left MCCM was entry into MHB, which is consistent with the goals and objectives of MCCM (Section 2 3 2)

[21] Request for Applications, Medicare Care Choices Model. https://innovation.cms.gov/files/x/mccm-rfa.pdf

2.1 MCCM Hospice Participation

This section explores the characteristics of hospices that participated in MCCM in contrast with non-MCCM hospices. These analyses address components of the following research questions:

- *Describe the characteristics of beneficiaries enrolled in MCCM, the participating hospices, and their markets. To what extent were MCCM-enrolled beneficiaries and hospices representative of Medicare overall?*

Below we present the number of participating and withdrawn hospices, and map their locations. Next, we discuss reasons provided by hospices for withdrawing from the model. We then compare the remaining MCCM hospices with non-MCCM (never participated) hospices on a variety of characteristics. Additionally, we compare characteristics of hospices that are active in the model to those that withdrew, to help understand whether any characteristics seemed related to withdrawal. Then, we discuss the affiliations MCCM hospices have with other health care providers, as this may impact referral patterns. Finally, we examine characteristics of local markets that MCCM and non-MCCM hospices draw beneficiaries from, to help understand whether the types and quantity of healthcare services these local markets provide are similar or different.[22]

2.1.1 Number and Locations of MCCM Participants and Withdrawals

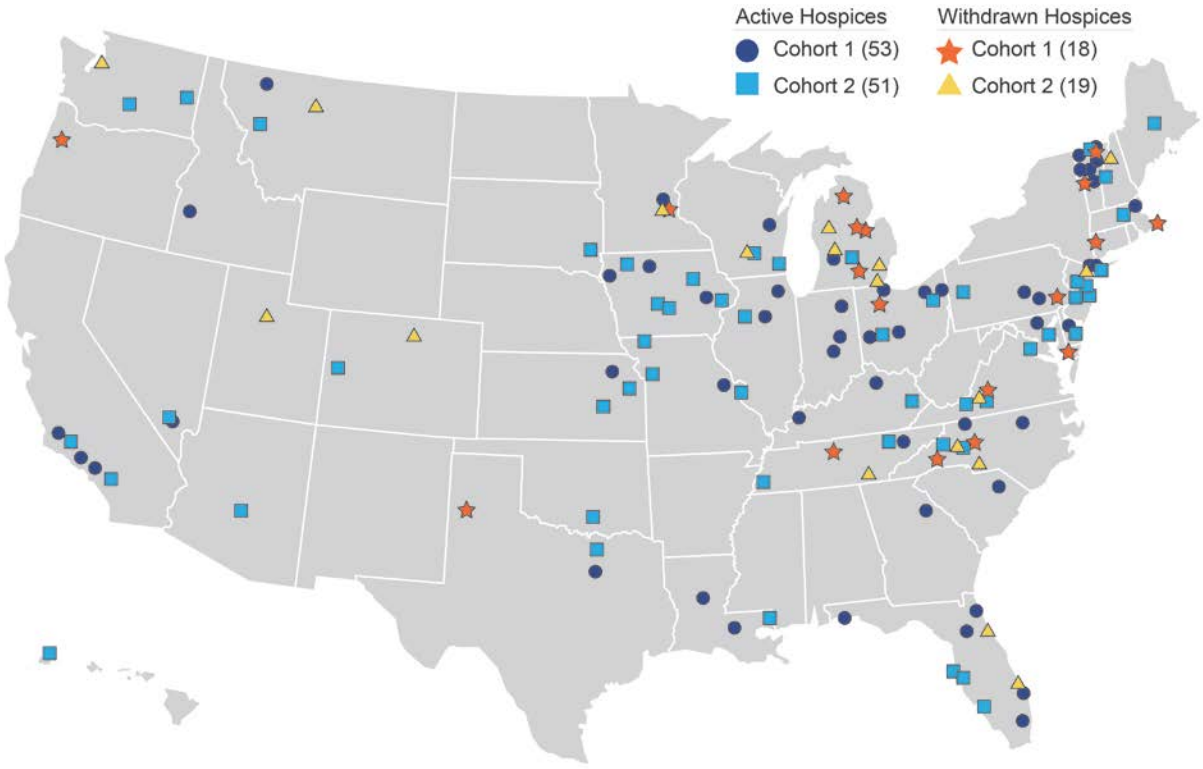
CMS initially accepted 141 hospices into the model in 2015, and randomized 71 hospices into cohort 1 and 70 hospices into cohort 2. Through December 31, 2017, 18 cohort 1 hospices and 19 cohort 2 hospices had withdrawn from MCCM, as shown in Exhibit 2.1,[23] and 53 cohort 1 and 51 cohort 2 hospices remained in the model. As of April 1, 2018, two additional cohort 1 hospices and six additional cohort 2 hospices planned to withdraw in 2018, or had already withdrawn in early 2018. There was a spike in withdrawals toward the end of 2017, as shown in Exhibit 2.2. This spike coincided with cohort 2 hospice's efforts to prepare to begin the model in 2018. As these efforts were underway, hospices may have reconsidered whether they wanted to participate. Similarly, some cohort 1 hospices had indicated they had organizational and leadership changes that caused them to withdraw.

Withdrawn hospices were more likely to be non-profit than hospices that remained active (see Section 2.1.3). Otherwise, the withdrawn and active hospices are similar across a variety of characteristics. Future evaluation reports will examine withdrawals to determine whether the hospices that withdraw are different from those that remain active, and whether these differences will affect estimations of the impact of the model or interpretations of findings. Additionally, we will monitor if there are reasons that non-profits were more likely to withdraw.

[22] We will control for differences across these markets in future impact analyses.

[23] We report the city and state of each hospice and whether they are active or withdrawn in Appendix Exhibit E.1.

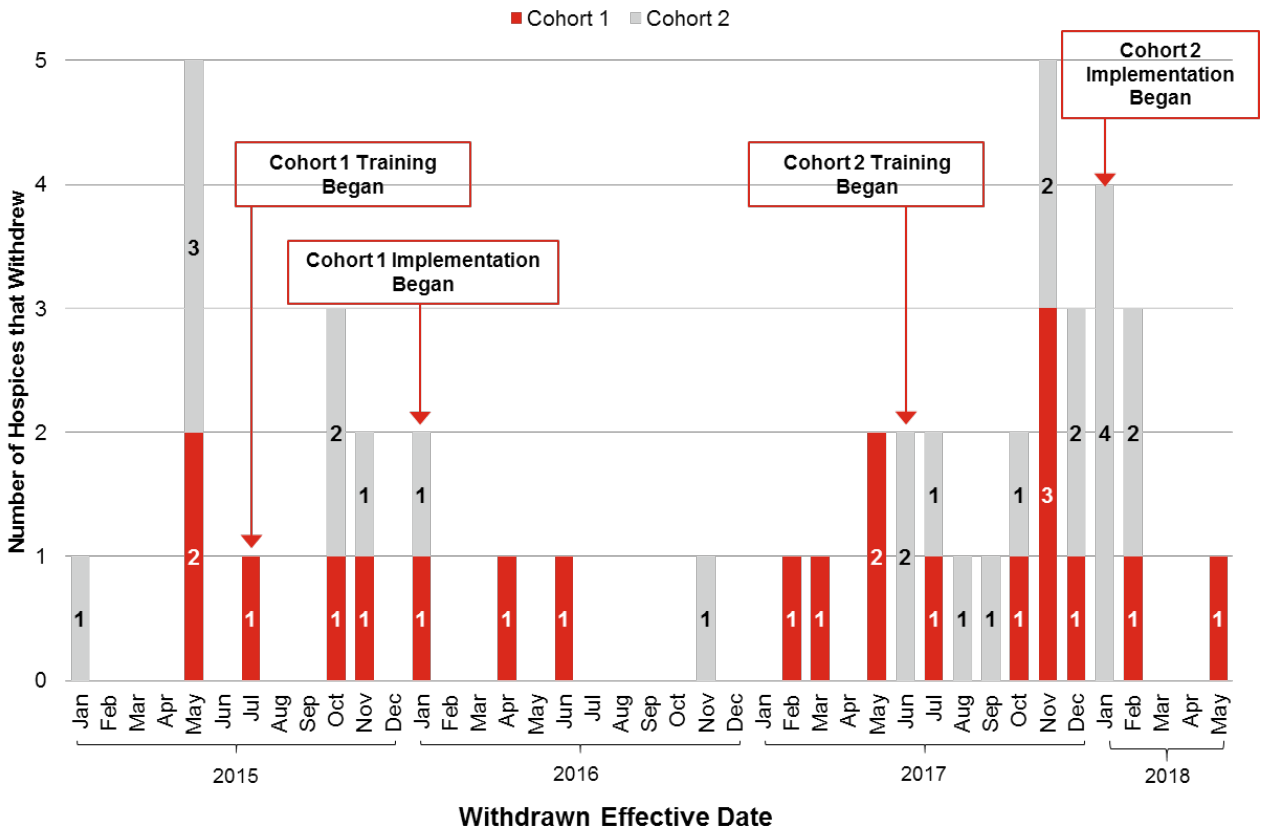
Exhibit 2.1: Location of MCCM Hospices



Source: Abt Associates analysis of implementation contractor's April 2018 report of hospice participation.

Note: Exhibit 2.1 presents hospices actively participating in the model as of December 31, 2017.

Exhibit 2.2: Number of MCCM Hospices That Withdrew, by Cohort and Time



Source: Abt Associates analysis of implementation contractor's April 2018 report of hospice participation.

Note: Hospices notify CMS of their intent to withdraw, and there is a 90-day window before their withdrawal is effective. Dates listed in this exhibit are the effective date of withdrawal.

2.1.2 Reasons for Hospice Withdrawal from MCCM

Hospices that withdrew from MCCM, both prior to starting the model and after some months of participation, told us their reasons for withdrawal, which included internal reasons, such as leadership changes at the hospice, as well as the following:[24]

- *Eligibility criteria and low beneficiary enrollment:* These issues were by far the most common reasons for hospice withdrawal. In particular, many beneficiaries that community providers referred to MCCM did not qualify for the model. Some hospices found it difficult to confirm whether a referral met the criteria. See Section 2.2.3 for detail on which eligibility criteria limited enrollment.
- *Overlapping palliative care program:* All of the cohort 1 hospices that withdrew after implementing the model for at least one year had palliative care programs that overlapped with MCCM in some way. Although all hospices knew what the MCCM payments would be, these hospices felt that the

[24] Our findings for withdrawal reasons are summarized in Exhibit E.2 in Appendix E, Section E.2.1.

payment for MCCM was not high enough for their participation to be sustainable, and that their existing palliative care programs (which had higher reimbursement) served the same populations.

- *Randomization and other issues leading to withdrawal prior to model start:* Nine hospices out of 18 we interviewed withdrew from MCCM prior to implementing the model: seven in cohort 2 and two in cohort 1. Of these, several indicated that issues related to their randomization into cohorts played some role in their decision to withdraw, even if it was not the primary reason. These hospices typically had multiple CMS certification numbers (CCNs) in the same parent organization accepted to participate in the model, but random selection put the CCNs in different cohorts. The parent organizations felt that they could not comply with CMS guidance that prohibited sharing of information between cohorts.

Impacts of Withdrawal on the MCCM Evaluation

Withdrawal from MCCM may impact the evaluation if it limits the overall enrollment of beneficiaries into the model. In response to the model participants' concerns, CMS relaxed elements of the eligibility criteria (see Section 2.2.3), which made more of the referred beneficiaries eligible for MCCM. Going forward, enrollment should be less of a challenge for the remaining hospices, which in turn may avert additional withdrawals.

2.1.3 Characteristics of MCCM Participating Hospices versus All Other Hospices

Organizational and market characteristics of hospices participating in MCCM could influence how the model is implemented and ultimately shape model outcomes, as shown in the conceptual framework, Exhibit 1.3. Below we compare the characteristics of hospices in the two MCCM cohorts to all other hospices nationwide.[25] We show hospice characteristics for both the original group of hospices starting MCCM, and the remaining hospices that did not withdraw. We also compare withdrawn hospices with those remaining in MCCM to understand whether certain characteristics are associated with withdrawing from the model.

Hospices in cohorts 1 and 2 were similar in terms of ownership type,[26] location, and size, as shown in Exhibit 2.3. However, MCCM hospices differ from hospices not participating in MCCM along those same characteristics. These differences may affect the generalizability of the impacts of MCCM. Except for ownership status, hospices that withdrew from the model had similar characteristics to MCCM hospices that remain, as shown in Exhibit 2.4 (with additional characteristics shown in Exhibit E.4 in Appendix E, Section E.2.1). This suggests that withdrawal from the model was not related to the underlying characteristics of the hospices, and the two cohorts remain well matched on characteristics we can observe. We summarize the findings below:

Ownership: The ownership structure of cohort 1 hospices appears similar to that of cohort 2 hospices, as shown in Exhibit 2.3. The majority of MCCM hospices in cohorts 1 and 2 are non-profit (66.2 and 71.4 percent, respectively). In contrast, the majority of all other hospices nationwide are for-profit (64.7

[25] We found there were 4,362 hospices in 2016 with at least one hospice claim. Of those, there were 141 cohort 1 and cohort 2 hospices. There were 4,221 hospices that had at least one claim in 2016 that were not participating in cohort 1 or cohort 2.

[26] Ownership types include for-profit, non-profit, government, and other.

percent) and only 22.3 percent are non-profit.[27] That difference is statistically significant. The model may therefore be less generalizable to for-profit hospitals, which are more numerous in the hospice industry.

For both cohorts, withdrawn hospices are more likely to be non-profit compared with the hospices that remain in the model, as shown in Exhibit 2.4. In particular, 62.3 percent of active cohort 1 hospices and 62.7 percent of active cohort 2 hospices are non-profit, while 77.8 percent of withdrawn cohort 1 hospices and 94.7 percent of withdrawn cohort 2 hospices are non-profit. That difference is also statistically significant. We will monitor this closely in future reports to determine whether this trend holds, and will explore the special challenges non-profit hospices face in the model.

Census region: The geographic locations of cohort 1 and 2 hospices are similar to each other, but different from that of all other hospices nationwide, as shown in Exhibit 2.3. The differences between MCCM and all other non-MCCM hospices in each census region (except "Other") are statistically significant. The model may be less generalizable for some regions of the nation than for others.

Size: We measure hospice size by the number of routine home care days a hospice provided under MHB in FY2016.[28] In particular, we distinguish hospices that had 20,000 or more routine home care days in FY2016 (large), those that had between 3,500 and 19,999 routine home care days (medium), and those that had fewer than 3,500 routine home care days (small).[29] We classify roughly 80 percent of hospices in both cohorts as large, 15 percent as medium, and 5 percent as small, as shown in Exhibit 2.3. However, we classify only 30 percent of non-MCCM hospices as large. These size differences are statistically significant. There is little difference in the size distribution between active and withdrawn cohort 1 and 2 hospices, as shown in Exhibit 2.4. As with our other findings, these results show that MCCM may be less generalizable for some sizes of hospices than for others, and that size must be taken into consideration when we measure model impacts.

For reference, the tabulations of additional characteristics for the groups of hospices shown in the above exhibits appear in Appendix Exhibits E.3 in Appendix E, Section E.2.3.

Implications: Phased implementation of MCCM and the similarities between hospices in cohorts 1 and 2 allow for cohort 2 to serve as a natural comparison group for cohort 1 during the first two years of the model test. That is, because cohort 1 and cohort 2 hospices are similar across many characteristics, we can measure how MCCM (and not underlying differences between the two cohorts) impacted outcomes in cohort 1. However, due to low enrollment in cohort 1 (see Section 2.2), we will not be able to fully rely on that approach going forward and plan to construct a matched comparison group for both cohorts using administrative data. Also, all other hospices not in MCCM are substantially different from participating hospices, which could limit the generalizability of what we learn from the model.

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27 We will consider these differences more when evaluating the generalizability of the impacts of the model,

28 Hospices that provide more days of routine home care under the MHB are larger (i.e., providing more services and treating more beneficiaries) than those that provide fewer days of routine home care.

29 Size categories match those traditionally used by CMS when setting payment rates for the Medicare hospice benefit. See Table 20 in the FY 2018 Hospice Wage Index and Payment Rate Update Final Rule https://www.federalregister.gov/documents/2017/08/04/2017-16294/medicare-program-fy-2018-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting

Exhibit 2.3: Key Characteristics across MCCM and All Other Hospices

Hospice Characteristic	MCCM Cohort 1 (N=71)	MCCM Cohort 2 (N=70)	All Other Hospices (N=4,221)	Significance
Ownership: Non-profit	66.2%	71.4%	22.3%	***
Ownership: For-profit	19.7%	14.3%	64.7%	***
Ownership: Other	12.7%	14.3%	9.5%	
Ownership: Government	1.4%	0.0%	3.4%	*
Census region: Midwest	33.8%	34.3%	21.7%	***
Census region: South	32.4%	31.4%	39.0%	*
Census region: Northeast	22.5%	17.1%	10.0%	***
Census region: West	11.3%	17.1%	28.2%	***
Census region: Other/unknown	0.0%	0.0%	1.1%	
Size: Large	81.7%	75.7%	30.4%	***
Size: Medium	14.1%	20.0%	47.1%	***
Size: Small	4.2%	4.3%	22.5%	***
Age: Founded in 1980s	54.9%	48.6%	11.7%	***
Age: Founded in 1990s	31.0%	37.1%	23.9%	***
Age: Founded in 2000s	9.9%	10.0%	30.7%	***
Age: Founded in 2010s	4.2%	4.3%	33.6%	***
Location: Urban	81.7%	85.7%	78.7%	
Location: Rural	18.3%	14.3%	21.3%	
Type: Freestanding	64.8%	71.4%	81.4%	***
Type: Facility-based	35.2%	28.6%	18.6%	***

Source: Abt Associates analysis of data from the CMS Provider of Services file.

Note: Percentages are column percentages within a particular characteristic. The all other hospices group consists of the 4,221 hospices that had at least one claim in 2016 nationwide and were not in cohort 1 or cohort 2. Chi-square tests were used to identify differences across hospices for each characteristic (e.g., for-profit versus all other ownership types), with statistical significance at the 10 percent (*), 5 percent (**), and 1 percent (***) levels. Reported significance is for the comparison between MCCM cohort 1 and 2 hospices versus all other hospices. None of the differences between cohort 1 hospices and cohort 2 hospices were significant at the 10 percent level. Hospice size was defined using the number of routine home care days in fiscal year 2016. Hospices with 0–3,499 routine home care days are classified as small, 3,500–19,999 as medium, and 20,000+ as large. https://www.federalregister.gov/documents/2017/08/04/2017-16294/medicare-program-fy-2018-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting

Exhibit 2.4: Key Characteristics across Active and Withdrawn MCCM Hospices

Hospice Characteristic	Active – Cohort 1 (N = 53)	Active – Cohort 2 (N = 51)	Withdrawn – Cohort 1 (N = 18)	Withdrawn – Cohort 2 (N = 19)	Significance
Ownership: Non-profit	62.3%	62.7%	77.8%	94.7%	***
Ownership: For-profit	20.8%	19.6%	16.7%	0.0%	*
Ownership: Other	15.1%	17.6%	5.6%	5.3%	*
Ownership: Government	1.9%	0.0%	0.0%	0.0%	
Census region: Midwest	34.0%	35.3%	33.3%	31.6%	
Census region: South	32.1%	29.4%	33.3%	36.8%	
Census region: Northeast	20.8%	19.6%	27.8%	10.5%	
Census region: West	13.2%	15.7%	5.6%	21.1%	
Census region: Other/unknown	0.0%	0.0%	0.0%	0.0%	
Size: Large	81.1%	76.5%	83.3%	73.7%	
Size: Medium	15.1%	21.6%	11.1%	15.8%	
Size: Small	3.8%	2.0%	5.6%	10.5%	
Age: Founded in 1980s	54.7%	43.1%	55.6%	63.2%	
Age: Founded in 1990s	30.2%	39.2%	33.3%	31.6%	
Age: Founded in 2000s	9.4%	13.7%	11.1%	0.0%	
Age: Founded in 2010s	5.7%	3.9%	0.0%	5.3%	
Location: Urban	83.0%	84.3%	77.8%	89.5%	
Location: Rural	17.0%	15.7%	22.2%	10.5%	
Type: Freestanding	32.1%	29.4%	44.4%	26.3%	
Type: Facility-based	67.9%	70.6%	55.6%	73.7%	

Source: Abt Associates analysis of data from the CMS Provider of Services file.

Note: Percentages are column percentages within a particular characteristic. Chi-square tests were used to identify differences across hospices for each characteristic (e.g., for-profit versus all other ownership types), with statistical significance at the 10 percent (*), 5 percent (**), and 1 percent (***) levels. Reported significance is for the comparison between all active MCCM hospices versus all withdrawn MCCM hospices. None of the differences between cohort 1 hospices and cohort 2 hospices were significant at the 10 percent level. Hospice size was defined using the number of routine home care days in fiscal year 2016. Hospices with 0–3,499 routine home care days were classified as small, 3,500–19,999 as medium, and 20,000+ as large.
https://www.federalregister.gov/documents/2017/08/04/2017-16294/medicare-program-fy-2018-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting

2.1.4 Organizational Affiliations of MCCM Participating Hospices

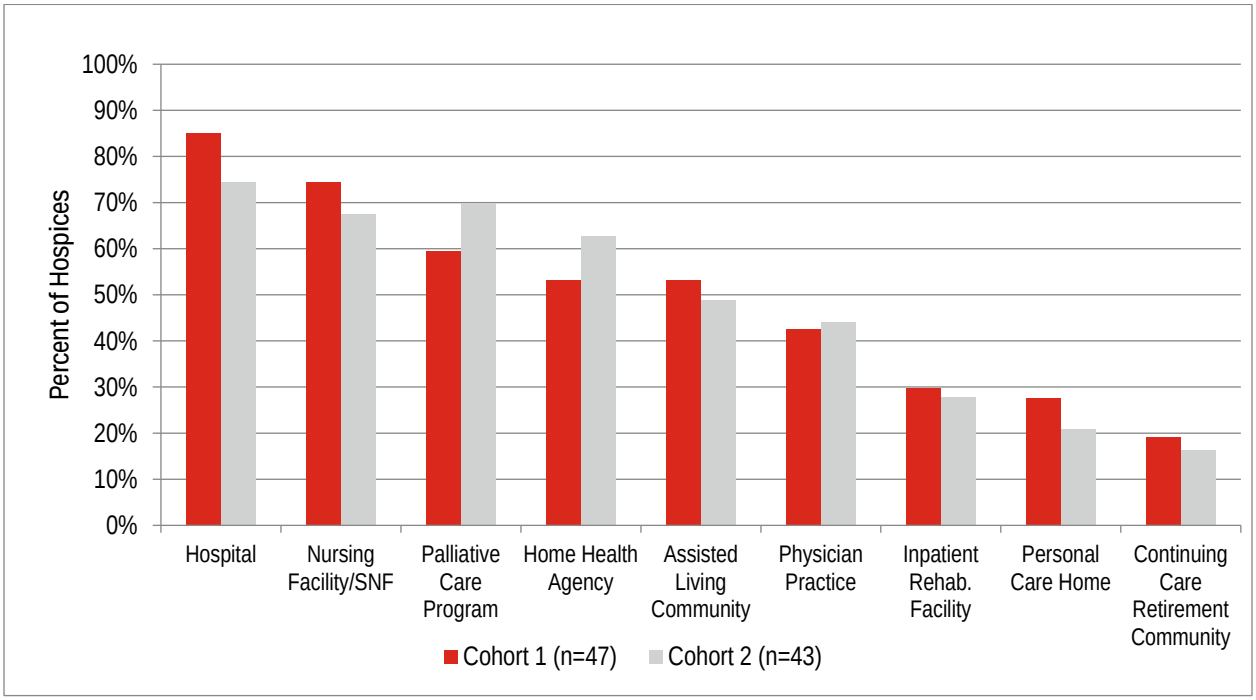
How hospices are organized, and their affiliations with other health care providers and other care delivery programs, may affect their ability to enroll eligible beneficiaries and succeed in MCCM. Below we examine affiliations with other health care providers as an important source of referrals. Additionally, we explore hospice affiliations with palliative care programs, since they may be a particularly important source of referrals. Finally, we examine participation in other payment models to determine whether any of the outcomes we find in MCCM will be directly impacted by hospices' participation in other models.

Affiliations with Other Health Care Providers

A majority of hospices in the model reported relationships with other external health care organizations. Most hospices in cohorts 1 (85.1 percent) and 2 (74.4 percent) reported affiliations with a hospital, as

shown in Exhibit 2.5. Additionally, more than half of the hospices in both cohorts reported affiliations with palliative care programs, nursing facilities/SNFs, and home health agencies. Many MCCM hospices also had affiliations with assisted living facilities and physician practices. The affiliations may help with beneficiary referrals to MCCM. In future evaluation reports, we will test whether having certain kinds of affiliations results in a larger number of referrals and enrollees.

Exhibit 2.5: Affiliations of MCCM Hospices with Other Health Care Organizations



Source: Cohort 1 and cohort 2 organizational survey, fielded September–December 2017.

Note: Not all hospices participating in the model responded. We based this table on survey responses from 47 of 49 cohort 1 hospices and 43 of 45 cohort 2 hospices. Sample size for this graphic differs from the total number of hospices surveyed because not all respondents answered every question on the survey. Percentages reported in the table represent the percentage of affirmative responses. Hospices could indicate that they had multiple affiliations, and therefore may appear under multiple affiliation types. The word affiliation was not defined in the organizational survey and therefore is open to interpretation by the respondent. The meaning of personal care home was not defined in the organizational survey, but is meant to describe residential facilities that offer personal care services, assistance, and supervision for a small group of people, typically four or five, and are licensed by the states. SNF = skilled nursing facility.

Relationships with Palliative Care Programs

MCCM has elements that closely align with the philosophy of palliative care, including the focus on symptom management and quality of life while an individual continues treatment for a serious illness. Hospice enrollees have already made the decision to discontinue treatment for their illness, and hospice staff focus on symptom alleviation and managing the process of dying. In contrast, individuals receiving palliative care are still in the process of making decisions about their goals and the extent of treatment they are receiving. Staff caring for these individuals often facilitate conversations about goals of care and when to discontinue certain treatments. For staff accustomed to serving only hospice beneficiaries, treating individuals who are in the middle of the difficult decision-making process can add a new dimension to their work. Hospices that also operate or affiliate with a palliative care program may be able to share staff between palliative care and MCCM to take advantage of the skills and experience of

palliative care staff. Palliative care programs may also be an important source of referrals to MCCM. Future reports will include analyses that examine whether having certain affiliations impact enrollment into MCCM.

Palliative Care Programs – Hospital-Based

Nearly two-thirds of the hospices in cohort 1 and cohort 2 operate or affiliate with a hospital-based palliative care program (61.2 and 64.4 percent, respectively). Of the hospices that operate or affiliate with a hospital-based palliative care program, 33.3 percent of cohort 1 and 27.6 percent of cohort 2 hospices share staff with the palliative care program. Hospice staff who also work in the hospital setting in these palliative care programs may receive training on MCCM eligibility requirements and how to discuss the benefits of MCCM with potential enrollees and their attending physicians. These discussions could then lead to enrollment in MCCM after hospital discharge.

Palliative Care Programs – Community-Based

MCCM hospices often have relationships with community-based palliative care programs: 48.9 percent of cohort 1 hospices and 68.9 percent of cohort 2 hospices reported such affiliations. Of the hospices with these affiliations, 54.1 percent of cohort 1 hospices and 70.9 percent of cohort 2 hospices reported sharing staff with the community-based programs. The shared staff may be nurse practitioners, care coordinators, or other clinical staff. In three of the 10 cohort 1 case studies we conducted, MCCM enrollees simultaneously received care from the hospice's community-based palliative care program and from MCCM. In these instances, MCCM enrollees received visits from a palliative care nurse practitioner, and MCCM staff coordinated the visits as part of the larger effort to coordinate all the care the beneficiary received. Hospice staff who used this approach told us that it made care coordination much smoother because the palliative care nurse practitioner could prescribe medications or make referrals to other specialties, and then the MCCM staff knew which providers they should reach out to for coordination.

Participation in Other Care Delivery Models or Programs

MCCM hospices that are familiar with other alternative payment models or care delivery programs may be better able to implement a model like MCCM. There may also be overlaps—competing or complimentary—between MCCM and other models/programs. Roughly a quarter of MCCM hospices responding to the survey (11 hospices in cohort 1, and 10 hospices in cohort 2) had some experience with other payment models and programs, operated by Medicare or other payers, as shown in Exhibit 2.6. Given the low participation in other models and programs, this is not likely to be an important factor for the evaluation, but we will continue to gather information about involvement in, and impact of, other concurrent models and programs.

Exhibit 2.6: MCCM Hospices' Participation in Other Care Delivery Programs

Response	MCCM Cohort 1 (N = 45)	MCCM Cohort 2 (N = 39)
Accountable care organizations	11.1%	17.9%
Preferred provider network	13.3%	5.1%
Medical home	11.1%	0.0%
Bundled payment	0.0%	5.1%
Other	2.2%	2.6%
Shared savings programs	0	0.0%

Source: Cohort 1 and cohort 2 organizational survey, fielded September–December 2017.

Note: Not all hospices participating in the model responded. Hospices could also indicate they were participating in multiple programs. We based this table on survey responses from 45 of 49 cohort 1 hospices and 39 of 45 cohort 2 hospices. Sample size for this graphic differs from the total number of hospices surveyed because not all respondents answered every question on the survey. Percentages reported in the table represent the percentage of affirmative responses.

2.1.5 Markets Served by MCCM Hospices

It is not only the choices made by beneficiaries and hospices that impact end-of-life outcomes, but also the larger environment of health care services in a city or town (referred to here as a health care market). It is important to understand whether and how MCCM hospices' health care markets differ from those of hospices not participating in MCCM. Market characteristics may impact how hospices implement MCCM and the outcomes of the model, as described in our conceptual framework in Exhibit 1.3.

Market characteristics of hospices participating in MCCM are similar in magnitude to the market characteristics of hospices not participating in MCCM, as shown in Exhibit 2.7.[30] The main difference in market characteristics is that Medicare spending per decedent was on average slightly lower in cohort 1 and 2 hospices ($66,526.00 and $65,730.78 respectively) than for other hospices nationwide ($71,246.44). That difference, as shown in Exhibit 2.7, is statistically significant. Differences across health care markets in Medicare spending per decedent could in part reflect different preferences for end-of-life care within certain communities and cultures, and this could impact who enrolls in MCCM and their use of costly services at the end of life. Other market differences are also statistically significant, but the differences are small in magnitude.

For future evaluation analyses, we will select a non-MCCM comparison group of hospices, based in part on market features, and will control for market differences that could contribute to MCCM outcomes. We will also explore utilization patterns of MCCM enrollees (e.g., prior inpatient hospitalizations, ED visits, home health care) to understand how patterns of care—especially those that vary across markets—may affect which hospices participate (and remain) in MCCM.

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[30] As a rough estimate of market, defined as the area hospices enroll beneficiaries from, we grouped all hospices into a hospital referral region based on the ZIP code of their mailing address. That is, each hospice in our analysis was assigned to a single hospital referral region. For this analysis we used characteristics from the Dartmouth Atlas that have already been calculated, as opposed to characteristics we calculate ourselves from Medicare administrative data. See http://www.dartmouthatlas.org/tools/faq/researchmethods.aspx for a description of a hospital referral region and the market-level characteristics shown in Exhibit 2.7. Additional information is available in Appendix A.5.2.

Exhibit 2.7: Market Characteristics of MCCM and All Other Hospices

Market Characteristic	MCCM Cohort 1 (N = 71)	MCCM Cohort 2 (N = 70)	All Other Hospices (N = 4,158)
	Mean	Mean	Mean
Medicare spending per decedent during last two years of life***	$66,526.00	$65,730.78	$71,246.44
Skilled nursing facility/long-term care spending per decedent during last two years of life***	$11,480.28	$10,941.85	$13,286.06
Hospice spending per decedent during last two years of life	$6,312.77	$6,655.11	$6,749.70
Payments for physician visits per decedent during last two years of life*	$5,117.44	$5,130.84	$5,461.33
Home health agency spending per decedent during last two years of life***	$3,849.25	$3,589.73	$4,389.31
Physician visits per decedent during last two years of life***	51.0	51.4	56.7
Intensive care unit days per decedent during last two years of life***	4.9	5.0	5.7
Percentage of deaths occurring in hospital*	20.3%	20.0%	20.9%

Source: Dartmouth Atlas of Health Care.

Note: Analysis is based upon all Medicare beneficiaries who died in 2014 and had utilized services under fee-for-service Medicare in the markets of cohort 1, cohort 2, or all other hospices. We assigned each hospice to one hospital referral region, as a proxy for hospice market, based on the ZIP of their mailing address. We examined market-level characteristics per decedent during the last two years of life, from the 2014 Dartmouth Atlas of Health Care, the most recent year for which these data were available. The all other hospices group consists of the 4,221 hospices that had at least one claim in 2016 nationwide and were not in cohort 1 or cohort 2. ZIP code information, obtained from the Provider of Services files for 2015 through 2017, was missing for 16 of 4,221 non-MCCM hospices, and ZIP could not be matched to hospital referral region for 47 hospices. Therefore, statistics reported in the last column are based on the 4,158 hospices with complete data. We identified differences among the three groups of hospices using a multivariate test of means that allowed for heterogeneous covariance matrices across groups. Statistical significance was identified at the 10 percent (*), 5 percent (**), and 1 percent (***) levels.

2.2 Trends in MCCM Enrollment

MCCM enrollees must meet eligibility criteria to ensure that those who enroll are clinically appropriate to receive services under the model and that the model can be evaluated. Many referred beneficiaries did not meet all of the eligibility criteria. This limited enrollment in the model, and also contributed to some hospices' withdrawal from the model (discussed in more detail in Section 2.1.2). In this section, we examine information on enrollment and address the following research questions:

- *Did any factors limit the number of beneficiaries enrolled in MCCM, and to what degree?*
- *What referral patterns are observed?*
- *What participant, provider, and beneficiary perceptions contribute to or hinder success of this model?*

We first present information on the numbers of referrals and on enrollment in the model. Then we examine changes in the enrollment criteria since the inception of the model. We then explore variation in enrollment across MCCM hospices. Finally, we discuss factors that may limit MCCM enrollment.

2.2.1 Referrals and Enrollment

CMS originally projected that enrollment over the course of the five-year model could reach as high as a maximum of 150,000 Medicare beneficiaries.[31] Other estimates were much more modest. Because a model like MCCM has never been tested before in the Medicare population, there was considerable uncertainty about potential enrollment size and barriers to enrollment.

As of June 30, 2017, 5,022 beneficiaries were referred to, and received screening[32] for enrollment into, MCCM. Of those referred and screened, 3,020 (60 percent) were not eligible for participation because they did not meet one of the eligibility requirements for the model[33], as shown in Exhibit 2.8. Of the remaining 2,002 (40 percent) who *were* eligible,[34] 1,092 (55 percent) enrolled in MCCM. In addition, 489 (24 percent) of the eligible elected to go directly into MHB rather than starting with MCCM, 345 (17 percent) declined to enroll in MCCM, and 76 (4 percent) died before making an enrollment decision. Although only a little over half of the eligible beneficiaries who were referred actually enrolled in MCCM, roughly a quarter enrolled in MHB instead. Since one goal of MCCM is to transition beneficiaries to MHB, declining MCCM in favor of MHB is a positive outcome.

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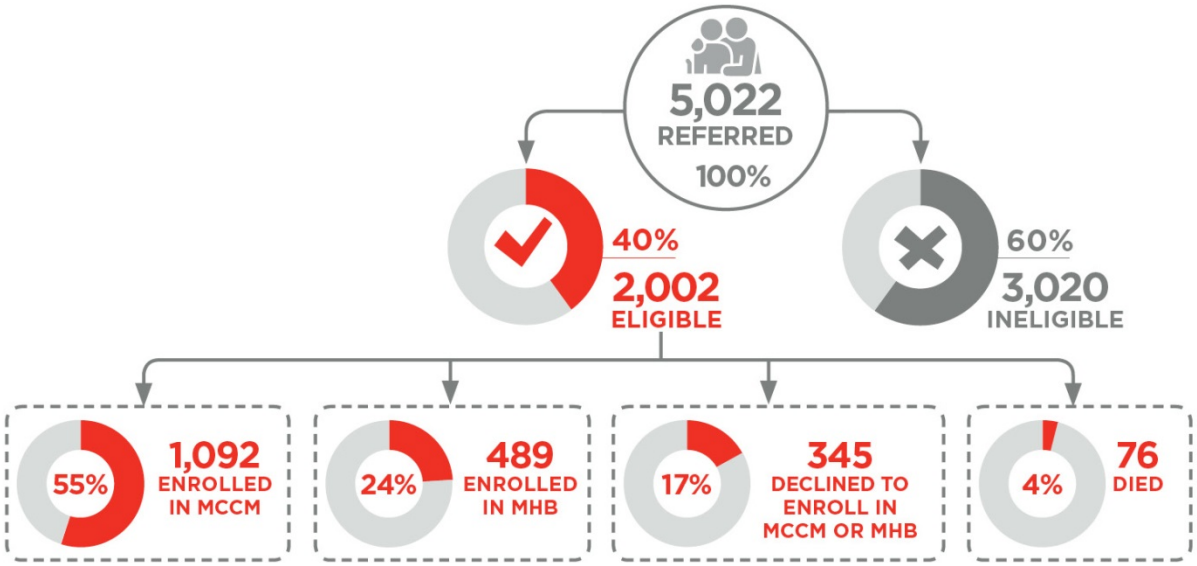
31 https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10094.pdf

32 Information on beneficiaries referred to MCCM and screened comes from the MCCM portal that the implementation contractor uses to collect data from MCCM hospices. It is not clear whether all hospices are entering all referrals into the portal, so the actual number of referrals may be higher than reported. Additionally, if a provider (e.g., hospital) refers a beneficiary to MCCM, but the beneficiary never follows up with the hospice, the hospice will not be able to record that referral.

33 For example, a beneficiary may not have a certification by their community provider that they have six months or less to live.

34 We discuss beneficiary eligibility requirements in Section 1.1, Overview of the Medicare Care Choices Model. Hospices check for these eligibility requirements when screening beneficiaries, and then enter whether a beneficiary is eligible for MCCM into the MCCM portal.

Exhibit 2.8: Number of Beneficiaries That Were Referred to and Enrolled in MCCM



Source: Abt Associates analysis of MCCM portal data through June 30, 2017.

Note: MHB= Medicare hospice benefit.

2.2.2 Variation in Enrollment among MCCM Hospices

Among the 71 cohort 1 hospices originally in MCCM, 49 hospices (69.0 percent) had enrolled at least one beneficiary into MCCM through June 30, 2017; eight hospices (11.3 percent) had 50 or more enrollees. Those eight hospices cared for the majority (58.6 percent) of all MCCM enrollees. At the same time, 19 hospices (26.8 percent) had 100 or more referrals, and 27 hospices (38.0 percent) had 10 or fewer referrals. Among MCCM hospices that had at least one beneficiary enrolled in the model, enrollment ranged from fewer than 10 beneficiaries to more than 100.

This variability may limit the generalizability of findings from this evaluation. Not only are MCCM hospices unlike other hospices in important ways, but also only some of the MCCM hospices had substantial enrollment. Future reports will explore whether variation in enrollment among participating hospices is explained by the size of a hospice's market, by other health care providers in the market (e.g., an abundance of hospices or palliative care programs), or by other factors.

2.2.3 Changes in MCCM Eligibility Criteria and Impact on Enrollment

Originally, the following eligibility criteria applied:

- Beneficiaries must have been enrolled continuously in Medicare Parts A and B for the 24 months prior to enrollment, must not be enrolled in a Medicare managed care organization, and must have had a Medicare Part D plan. CMS eventually eliminated the requirement to have a Part D plan.
- Beneficiaries must have been living in a traditional residence (in the service area of a participating hospice) and not in a nursing home, assisted living facility, or group home.
- Beneficiaries must have had two hospital admissions during the 12 months prior to MCCM enrollment that were both related to the MCCM qualifying diagnosis (AIDS, CHF, COPD, or advanced cancer). This was later changed to one hospital encounter.

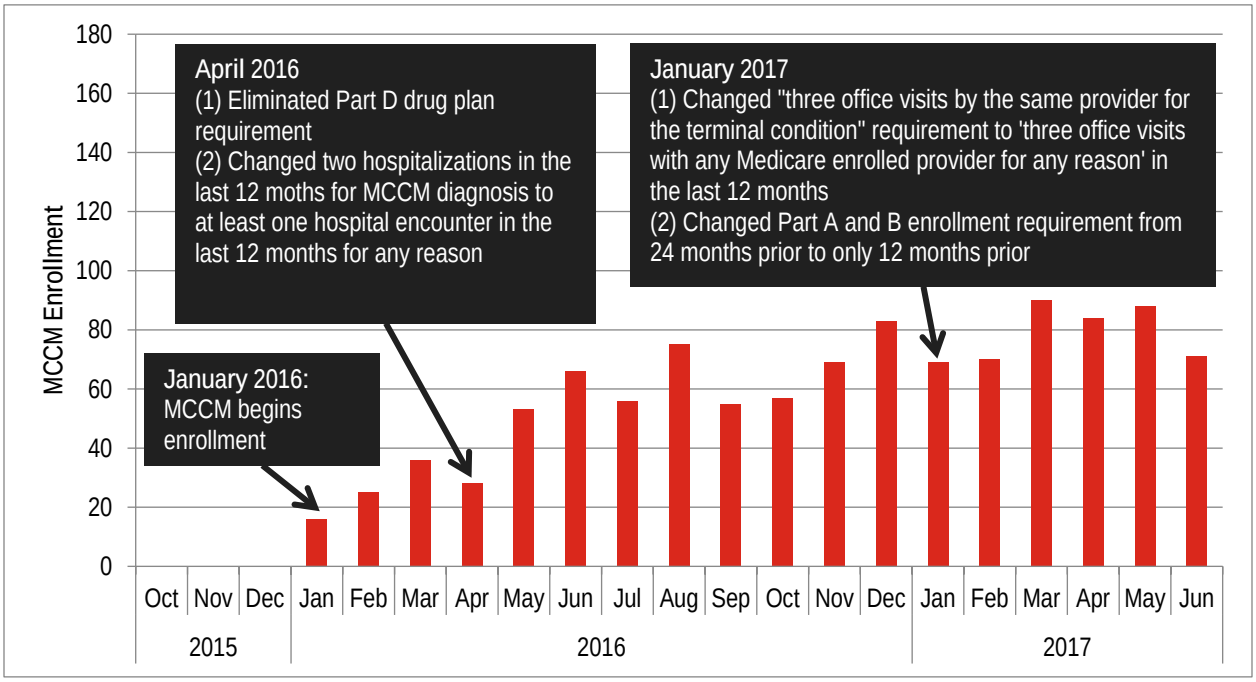
- Beneficiary must have had three office visits in the prior year with the same provider, and the visits needed to be related to the MCCM qualifying diagnosis. This was later changed to require the beneficiary to have three office visits with any provider for any reason.
- Beneficiary must not have elected the Medicare or Medicaid Hospice Benefit in the 30 days prior to enrollment.
- Beneficiary had to be certified as terminally ill.

Some of these criteria posed challenges for recruiting and enrolling beneficiaries, which in turn contributed to low enrollment, as discussed below in Section 2.2.4. In April 2016, CMS adjusted several criteria, specifically: removing the requirement that beneficiaries be enrolled in a Medicare Part D plan, and lowering the prior hospitalization requirement to one hospital *encounter* (ED visit, observation stay, or inpatient admission) in the prior 12 months. Additionally, that one encounter could be for any diagnosis, and was not limited to an MCCM qualifying diagnosis.

In January 2017, CMS made additional changes, including changing the office visit requirement so that beneficiaries needed to have three prior office visits with any Medicare provider for any reason. Also in January 2017, CMS began requiring beneficiaries to be enrolled in Medicare Parts A and B for at least 12 months prior to MCCM enrollment, not 24 months as previously required.

We show the monthly number of new MCCM enrollees between January 1, 2016, and June 30, 2017, and the timing of CMS changes to the eligibility criteria in Exhibit 2.9. Enrollment steadily increased over the time period, with noticeable increases following the relaxation of eligibility criteria. This indicates that CMS addressed the challenges posed by the original criteria through mid-course corrections. During interviews, hospice staff told us that after the changes in eligibility criteria they tried to contact beneficiaries whom they had previously judged ineligible but who might have become eligible because of the revised criteria. The hospices were able to successfully enroll some of these beneficiaries, although not if the beneficiary had already transitioned to hospice, had passed away or was ineligible for MCCM for another reason.

Exhibit 2.9: New MCCM Enrollment by Month



Source: Abt Associates analysis of MCCM portal data through June 30, 2017.

2.2.4 Enrollment Challenges

Lower than anticipated enrollment was a focus of our interviews and case studies with MCCM hospices, and we also interviewed a subset of hospices that were struggling to enroll anyone into MCCM. There was a clear distinction between hospices struggling to find beneficiaries who met eligibility criteria, and hospices that had difficulty with the process of verifying eligibility criteria.

The following sections discuss several of the original MCCM eligibility issues, before CMS made any changes, and the challenges each posed for participating hospices. Our findings are summarized in Exhibit E.5 in Appendix E, Section E.2.2.

Medicare coverage requirement: During our case studies and interviews, staff from MCCM hospices told us that the eligibility criterion that disqualified more beneficiaries than any other was the requirement for individuals to be enrolled in fee-for-service Medicare for the prior 12 months and not be enrolled in a Medicare managed care plan. This combined requirement was especially challenging for hospices in markets with high penetration of Medicare managed care plans, because many beneficiaries who would otherwise be eligible for MCCM have these plans. Five of the six low enrollment hospices we interviewed mentioned this criterion as an important disqualifier. For three of 10 withdrawn hospices that identified this eligibility criterion as the most important disqualifier, the process of confirming whether or not beneficiaries were in a Medicare managed care plan and had the requisite fee-for-service Medicare coverage was the actual barrier, not necessarily that potential enrollees failed to meet the criteria. One hospice told us that beneficiaries are sometimes unaware they are in a Medicare managed care plan, and staff are concerned about piquing interest in the model, then later telling beneficiaries they are not eligible.

Qualifying diagnoses: MCCM is available for beneficiaries with four specific diagnoses. MCCM hospices identified additional diagnoses that are common in the Medicare population, and for which MCCM services could be extremely valuable, including end-stage renal disease, dementia, and amyotrophic lateral sclerosis.

Hospital encounters: The MCCM eligibility criterion of at least one hospital inpatient encounter in the prior 12 months was challenging for some hospices to verify. In addition, some MCCM hospices were working on other successful programs to reduce hospital use for beneficiaries with terminal diagnoses, leaving fewer beneficiaries with hospitalizations that met MCCM eligibility criteria. Similarly, two hospices indicated that their own palliative care programs were so successful in preventing ED visits (many of which lead to hospitalization) that few beneficiaries met the MCCM prior hospitalization eligibility criterion. Several hospices that withdrew mentioned that local hospitals were increasing the use of observation units, which also reduced inpatient admissions and made the MCCM prior hospitalization eligibility threshold harder to meet. CMS's April 2016 eligibility revisions (to include ED visits and observation stays, and remove the requirement that a prior hospitalization was related to the MCCM qualifying diagnosis) addressed some of these issues by shifting the emphasis from prior inpatient hospitalizations to prior use of hospital services more generally.

> *"The [oncology clinic] is doing a good job keeping patients out of the hospital, but that means they are also keeping them out of MCCM."*
>
> –Cohort 1 hospice leader

Office visit requirement: Four of the 10 cohort 1 hospices that we visited described the three prior office visit criterion as challenging because these visits are difficult for a hospice to verify. One hospice told us that they assumed beneficiaries with one of the four diagnoses would always have at least three office visits related to that diagnosis. They did not try to verify this, because the cost of verifying prior visits would have consumed a disproportionate share of the MCCM payment. A few MCCM hospices told us they asked referring providers to verify dates of previous office visits, a strategy that was not generally successful.

Waiting period after hospice discharge: Some MCCM hospices we visited mentioned that waiting 30 days after discharge from hospice prevented them from enrolling beneficiaries who tried hospice and realized they were not ready, but who had immediate needs that MCCM could meet.

> *"The leadership team expected that marketing a program with so many restrictions and eligibility criteria would be difficult; in this industry you want to say 'yes', not 'but, but, but.'"*
>
> –Cohort 2 withdrawn hospice

Certification of terminal illness (CTI): Some cohort 1 hospices mentioned difficulty getting signed CTIs from physicians. Some referring physicians told them it is difficult to predict life expectancy, especially for beneficiaries with CHF and COPD, whose terminal disease phase can be variable and unpredictable. MCCM hospices reported a somewhat easier time obtaining CTIs for beneficiaries with cancer. We note that CTIs are required for MHB as well, and this requirement is not unique to MCCM.

Residence: Some hospices we interviewed felt that they could enroll beneficiaries who reside in nursing homes, assisted living, or group homes who would benefit from MCCM. However, none mentioned this eligibility criterion as a primary barrier for MCCM enrollment.

Part D coverage: Three MCCM hospices that withdrew, and two others that had very low enrollment, noted that Part D coverage was problematic before CMS removed this eligibility criterion in April 2016. We note, however, that those three hospices withdrew after CMS had already made this change, and

likely faced other challenges in implementing the model. None of the 10 hospices with which we conducted case studies mentioned this as a meaningful barrier.

2.3 MCCM Beneficiary Participation

This section explores the characteristics of beneficiaries enrolled in MCCM, their reasons for enrollment, and explanations for why other eligible beneficiaries did not enroll or withdrew voluntarily from MCCM. These analyses address the following research questions:

- *Describe the characteristics of beneficiaries enrolled in MCCM, the participating hospices, and their markets. To what extent were MCCM-enrolled beneficiaries and hospices representative of Medicare overall?*
- *What are the reasons for beneficiary participation or non-participation in MCCM?*
- *What are the characteristics of those beneficiaries and hospices that withdrew from the model and why did they leave?*

We start by examining characteristics of beneficiaries enrolled in MCCM and comparing them to Medicare beneficiaries who were eligible but did not enroll.[35] We then review reasons beneficiaries gave for enrolling in MCCM, declining MCCM, or leaving MCCM.

2.3.1 Characteristics of Beneficiaries in MCCM versus MCCM-Eligible Beneficiaries Nationwide

From January 1, 2016 through June 30, 2017, 1,092 Medicare beneficiaries enrolled in MCCM, and 595 of these enrollees died before June 30, 2017. During the same time period, 305,375 Medicare beneficiaries nationwide who met the MCCM eligibility criteria died. We call these two groups MCCM decedents and nationwide decedents in the remainder of this section.[36] We focus on decedents for our comparison because otherwise it would be difficult to pick a comparison sample of non-MCCM enrollees who are close to the end of life. We include counterparts to Exhibits 2.10, 2.11, and 2.12 in Appendix E.2. Specifically, in Exhibit E.6, E.7, and E.8, we present additional supplementary information about all MCCM enrollees through June 30, 2017, regardless of death, including demographics, clinical characteristics, and social support characteristics. Comparing results across the decedents and ever-enrolled group shows no meaningful differences. There are slight differences in functional status and diagnosis.

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[35] The beneficiary populations we examine in this report are described in Appendix A, Section A.1. There are three primary groups which we refer to as *MCCM decedents – cohort 1*, *MCCM ever-enrolled beneficiaries – cohort 1*, and *MCCM-eligible nationwide decedents*. *MCCM ever-enrolled beneficiaries – cohort 1* is comprised of all (n = 1,092) MCCM enrollees that ever enrolled (though June 30, 2017) and *MCCM decedents – cohort 1* is comprised of all (n = 595) MCCM enrollees with recorded dates of death (through June 30, 2017). In some analyses we also included *MCCM-eligible nationwide decedents*, comprised of Medicare beneficiaries with recorded dates of death that we determine would have been otherwise eligible for MCCM based on their administrative heath care records.

[36] As discussed in Section 1.1, to determine eligibility for MCCM we identified Medicare decedents from January 1, 2016 through June 30, 2017, and looked back six months prior to their deaths. We then checked each MCCM eligibility criterion, except for six-month life prognosis, at that point (six months prior to death) to determine whether they could have enrolled in MCCM given the opportunity. This estimate represents the maximum number of people who could have enrolled in MCCM. However, many of these beneficiaries might not have been given a six-month life prognosis by a physician, which is an important MCCM eligibility criterion that we cannot verify using claims data.

There are important differences in age, diagnosis, multimorbidity, and geography between MCCM decedents and nationwide decedents, as shown below in Exhibits 2.10, 2.11, and 2.12.[37] These exhibits, and Exhibit E.9 in Appendix E Section E.2.3, also show many similarities between these two groups, including race and ethnicity and hierarchical condition category (HCC) risk scores (indicating severity). Beneficiary characteristics are important to examine because, as explained in our conceptual framework in Exhibit 1.3, they describe who used MCCM, and could affect MCCM outcomes.

In future reports, when we estimate the impact of MCCM, we will control for differences between beneficiaries who use MCCM and similar beneficiaries who do not. It is also important to note that to date, enrollment in MCCM has been modest, and it is possible that the population characteristics described below could change as enrollment increases over time.

Demographics

Age: The average age of MCCM decedents was 77.8, while the average age of decedents nationwide was 82.9 at the time of death. In addition to their being younger on average than the nationwide decedents, 77.6 percent of the MCCM decedents were under 84 years of age, compared with only 50.2 percent of nationwide decedents, as shown in Exhibit 2.10. These differences are statistically significant. Age differences may correlate with beneficiaries' disease trajectories, treatment patterns, and Medicare spending. Therefore, these differences will be important to control for when measuring the impact of MCCM.

[37] We present summary statistics for all MCCM enrollees (i.e., not just those that died) in Appendix E, Section E.2.3 for demographics of enrollees (Exhibit E.6), clinical characteristics (Exhibit E.7), and social support (Exhibit E.8).

Exhibit 2.10: Beneficiary Demographics

Beneficiary Characteristic	MCCM Decedents – Cohort 1 (N = 595)	MCCM-Eligible Nationwide Decedents (N = 305,375)	Significance
Age: 0–64	5.4%	5.4%	
Age: 65–74	30.9%	15.9%	***
Age: 75–84	41.3%	28.9%	***
Age: 85+	22.4%	49.8%	***
Gender: Male	51.1%	46.1%	**
Gender: Female	48.9%	53.9%	**
Race & ethnicity: White	87.7%	88.7%	
Race & ethnicity: Black	8.6%	7.5%	
Race & ethnicity: Hispanic	0.5%	1.3%	*
Race & ethnicity: Other	3.2%	2.5%	
Census region: South	42.9%	42.6%	
Census region: Midwest	29.1%	24.8%	**
Census region: Northeast	22.0%	15.4%	***
Census region: West	6.1%	17.1%	***
Census region: Other/unknown	--	0.1%	
Dual eligible: No	90.9%	86.1%	***
Dual eligible: Yes	9.1%	13.9%	***

Source: Abt Associates analysis of Master beneficiary summary file.

Note: Percentages are column percentages within a particular characteristic. Analysis based upon MCCM enrollees with dates of death on or before June 30, 2017, less one MCCM enrollee with a potentially incorrect date of death (that is listed as occurring prior to other recorded Medicare claims). Chi-square tests were used to specify differences relative to MCCM cohort 1 enrollees for each statistic (e.g., Age 85+ versus Not Age 85+), with statistical significance identified at the 10 percent (*), 5 percent (**), and 1 percent (***) levels.

Race: The vast majority of MCCM decedents are identified in Medicare data as "White" (87.7 percent), followed by "Black" (8.6 percent). This distribution is similar to the distribution of race for the nationwide decedents, with only the "Hispanic" category being statistically different between MCCM decedents (0.5 percent) and nationwide decedents (1.3 percent).

Geography: Relative to the nationwide decedents, MCCM decedents were slightly more likely to come from the Northeast census region (22.0 percent versus 15.4 percent) or the Midwest census region (29.1 percent versus 24.8 percent), and less likely to come from the West census region (6.1 percent versus 17.1 percent), as shown in Exhibit 2.10. These results are similar to what we reported earlier regarding hospice locations, and are statistically significant differences. As with the other characteristics, geography may be related to outcomes at the end of life, and possibly willingness to consider MCCM and/or hospice, and therefore will be important to control for when measuring the impact of MCCM.

Clinical Characteristics

The distribution of qualifying MCCM diagnoses differed substantially for MCCM decedents and nationwide decedents.[38] For example, 60.8 percent of MCCM cohort 1 decedents were diagnosed with cancer without CHF or COPD, while only 17.1 percent of the nationwide decedents received the same diagnosis, a statistically significant difference, as shown in Exhibit 2.11. Additionally, the nationwide decedents had higher rates of certain comorbidities (e.g., hypertension) than did the MCCM decedents. These differences are also statistically significant. A beneficiary's clinical condition is an important contributing factor to outcomes at the end of life. Therefore, diagnosis and multimorbidity will be important to control for when measuring the impact of MCCM.

Information submitted to the MCCM portal shows that 59.8 percent of MCCM decedents had a functional status labeled as "Needs Some Assistance," and only 25.9 percent had a functional status labeled as "Dependent." Functional status is one indicator of a beneficiary's health, and care delivery patterns can depend on functional status. Beneficiaries who are "Dependent" may require more support from MCCM than someone who is "Independent." Future analyses will examine how outcomes and services provided by MCCM hospices correlated with those functional status measures. Equivalent data are not available for nationwide decedents nor are they available for beneficiaries referred to MCCM but do not enroll in MCCM.

[38] Diagnoses for MCCM decedents came from the MCCM portal while diagnoses for the nationwide decedents came from prior claims. We assume that the MCCM portal provides the most accurate record of the terminal condition that qualified the beneficiary for MCCM. Looking at prior claims will likely identify more conditions than what is reported in the MCCM portal because health care providers record a range of diagnoses in claims. Claims data also lack specific information about whether the diagnosis is considered to be terminal. The diagnosis from the MCCM portal, by contrast, represents the condition listed in the beneficiary's certificate of terminal illness, signed by a physician, as required for MCCM eligibility. We are refining our methodology for identifying MCCM qualifying diagnoses in claims so that we can select closer matches on MCCM diagnosis in future impact analyses.

Exhibit 2.11: Beneficiary Clinical Characteristics

Beneficiary Characteristic	MCCM Decedents – Cohort 1 (N = 595)	MCCM-Eligible Nationwide Decedents (N = 305,375)	Significance
Functional status: Independent	14.3%	Unavailable	
Functional status: Needs some assistance	59.8%	Unavailable	
Functional status: Dependent	25.9%	Unavailable	
Diagnosis: Cancer	60.8%	17.1%	***
Diagnosis: CHF	13.4%	16.6%	***
Diagnosis: COPD	9.4%	7.8%	***
Diagnosis: Other (including HIV/AIDS)	5.9%	10.2%	***
Diagnosis: Cancer + COPD	4.9%	11.8%	***
Diagnosis: COPD + CHF	4.9%	21.4%	***
Diagnosis: Cancer + COPD + CHF	0.7%	15.0%	
Comorbidity: Hypertension	74.3%	85.0%	***
Comorbidity: Hyperlipidemia	59.7%	60.4%	
Comorbidity: Anemia	56.6%	60.7%	**
Comorbidity: Ischemic heart disease	53.9%	60.6%	***
Comorbidity: Chronic kidney disease	46.2%	55.6%	***

Source: Abt Associates analysis of Medicare claims and MCCM portal data (for functional status –unavailable for the nationwide decedents). Diagnosis came from the MCCM portal, which contains the most accurate information available for MCCM decedents. Diagnosis came from prior claims for the nationwide decedents, because the MCCM portal does not include information on diagnosis for beneficiaries not enrolled in the model.

Note: Percentages are column percentages within a particular characteristic. Analysis based upon MCCM enrollees with dates of death on or before June 30, 2017, less one MCCM enrollee with a potentially incorrect date of death (that is listed as occurring prior to other recorded Medicare claims). Diagnoses listed were only the four used to establish MCCM eligibility. Comorbidities are based on the five most common chronic conditions among MCCM enrollees. Chi-square tests were used to identify differences relative to MCCM decedents for each statistic (e.g., hypertension versus no hypertension), with statistical significance identified at the 10 percent (*), 5 percent (**), and 1 percent (***) levels. In the list of diagnoses, if a diagnosis (i.e., COPD) is listed, that represents beneficiaries with only COPD (and who do not have cancer, CHF, or HIV/AIDS). CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

Social Supports

There was considerable variation in the level of social support that MCCM enrollees had at home. This information comes from the MCCM portal, and equivalent data are not available for the nationwide decedents. When enrolled in MCCM, 53.8 percent of MCCM decedents were married, and 27.1 percent were widowed, as shown in Exhibit 2.12. Only 4.4 percent of MCCM decedents had indicated they had no caregiver available, and 20.0 percent had indicated that they lived alone. Beneficiaries with fewer social supports may require more support from the MCCM hospice. Equivalent data are not available for beneficiaries referred to MCCM but not enrolled in MCCM. Future analyses will examine how outcomes and services provided by MCCM hospices correlate with these social supports.

Exhibit 2.12: Beneficiary Social Supports

Beneficiary Characteristic	MCCM Decedents – Cohort 1 (N = 595)
Marital status: Married	53.8%
Marital status: Widowed	27.1%
Marital status: Divorced	9.1%
Marital status: Never married	5.9%
Marital status: Partner	0.7%
Marital status: Declined to report	3.5%
Caregiver availability: Spouse	46.4%
Caregiver availability: Child/children	32.4%
Caregiver availability: Paid caregiver other than family member	4.7%
Caregiver availability: Other	12.2%
Caregiver availability: No caregiver	4.4%
Living arrangements: Patient lives with other person(s)	80.0%
Living arrangements: Patient lives alone	20.0%

Source: Abt Associates analysis of MCCM portal data

Note: Percentages are column percentages within a particular characteristic. Analysis based upon MCCM enrollees with dates of death on or before June 30, 2017, less one MCCM enrollee with a potentially incorrect date of death (that is listed as occurring prior to other recorded Medicare claims).

2.3.2 Reasons for Beneficiary Participation or Non-Participation in MCCM

Given low MCCM enrollment, it is important to understand why some beneficiaries enrolled in MCCM. We interviewed 20 MCCM enrollees as part of case studies. All 20 understood that MCCM was related to hospice care but distinct from the hospice services they could receive if they enrolled in MHB. All seemed to understand that MHB would require forgoing treatment for their terminal disease while MCCM would not, but few identified this as the reason they chose MCCM instead of MHB. Reasons for MCCM enrollment that interviewees most often mentioned included:

- MCCM was recommended by a discharge planner or other acute/post-acute care provider (10 of 20 interviewees cited this reason), due to an acute change in condition.
- Beneficiaries had reached a point in their disease trajectory where they needed extra support in addition to the assistance of their primary caregiver (five of 20 interviewees cited this reason).
- Beneficiary was eligible for, but unwilling to accept, MHB (four of 20 interviewees cited this reason).

- MCCM was recommended by a palliative care provider or specialist (four of 20 interviewees cited this reason).

MCCM hospice staff reported that when eligible MCCM beneficiaries learned the details of the model, they were generally enthusiastic about enrolling.

Reasons for Declining MCCM

MCCM hospices report through the MCCM portal on beneficiaries they screen to determine eligibility for MCCM. They then report whether the beneficiary enrolls in or declines MCCM. Among 345 beneficiaries who were screened and determined to be eligible, but declined to enroll in MCCM or MHB, 44.6 percent indicated that they were "not ready for palliative care," 17.4 percent "declined care coordination," 5.5 percent declined due to not wanting staff in their home, and 32.5 percent cited another reason, as shown in Exhibit 2.13. Less common reasons included in the "other" category included: selecting MHB,[39] lack of interest, beneficiary does not live in the hospice's defined service area, and change in eligibility status.

The reasons for declining may offer important lessons to hospices that could help target referrals—although prior to the referral it may be difficult to identify whether certain beneficiaries might fit into these categories. Since only 17.2 percent of beneficiaries referred to MCCM and eligible for MCCM declined to enroll in either MCCM or MHB, these findings show that MCCM is successful in enrolling the majority of their eligible referrals in either MCCM or MHB.

[39] Note that in the MCCM portal, hospices can select one option for each MCCM-eligible referral: patient enrolled in MCCM, declined to enroll in MCCM, enrolled in MHB, or patient died. It is unclear why hospices listed 25 beneficiaries as declining MCCM but then later indicated the patients declined in order to enter MHB. Four hundred eighty-nine eligible referrals enrolled directly in MCCM.

Exhibit 2.13: Reasons for MCCM-Eligible Beneficiaries Declining MCCM

Reason for Decline	Percentage Declined (N = 345)
Not ready for palliative care	44.6%
Declined care coordination	17.4%
Free response: Family or patient not interested	7.8%
Free response: Selected the Medicare hospice benefit	7.2%
Declined staff in home	5.5%
Free response: Not within service area	3.8%
Free response: Cannot contact patient, family, or physician	3.5%
Free response: Change in eligibility criteria or status	3.2%
Free response: Selected post-acute care, long-term care, or enrolled in another program	2.6%
Free response: Selected home health	2.3%
Free response: Maintain inpatient care	2.0%

Source: Abt Associates analysis of MCCM portal data (n=345 beneficiaries that declined MCCM).

Note: Percentages are column percentages. Analysis based upon 5,022 beneficiaries screened for MCCM through June 30, 2017, 3,020 (60.1 percent) of whom were not eligible. Of the remaining 2,002 referred to MCCM, 1,092 (54.5 percent) enrolled, 76 (3.8 percent) died, 489 (24.4 percent) chose to use the Medicare hospice benefit (MHB), and 345 (17.2 percent) declined MCCM. Note: 25 beneficiaries who declined MCCM and selected MHB are not included in the 489, because these are two distinct outcomes reported in the MCCM portal, and it is unclear why they were not included in the subgroup who chose to use MHB instead of MCCM. Data used to populate this table were from the patient baseline form (MCCM portal). Free response items were when the hospice typed in their own answer instead of using a pre-populated option within the portal. Similar free response entries were then combined into a larger category to aid the analysis.

Reasons That MCCM Enrollees Leave MCCM

Of the 1,092 beneficiaries who had enrolled in MCCM by June 30, 2017, 70.4 percent were discharged from MCCM following a median length of stay in MCCM of 63 days (2.1 months). Of the 1,092 beneficiaries that enrolled, 54.5 percent had died by June 30, 2017 and their median length of stay in MCCM prior to death was 42 days (1.4 months).

Among the 769 beneficiaries who enrolled in MCCM and subsequently left, 75.7 percent transitioned from MCCM to MHB. In addition, 13.0 percent died while in MCCM without using MHB, as shown in Exhibit 2.14. Other reasons for leaving MCCM (e.g., moved out of hospice service area, extended life expectancy) were relatively infrequent. Transitioning to MHB is a desired outcome of MCCM (see Section 6), and these results show that this occurs frequently for beneficiaries enrolled in MCCM. As described earlier in Exhibit 1.2, MHB provides additional services not available under MCCM, which could incrementally improve outcomes at the end of life beyond those achieved by MCCM.

Exhibit 2.14: Reasons for Leaving MCCM

Reason for Leaving MCCM	Percentage Leaving (N= 769)
Elected the Medicare hospice benefit	75.7%
Died	13.0%
Requested voluntary discharge from MCCM	4.0%
Moved out of hospice service area	1.7%
Free response: Extended life expectancy	1.7%
Resided in long-term nursing facility for more than 90 days	1.2%
Free response: Hospice withdrew from MCCM	0.8%
Free response: Changed to a Medicare managed care plan	0.7%
Free response: Patient not available for MCCM services	0.5%
Discharged for cause	0.3%
Transferred to another MCCM hospice	0.3%
Free Response: Discharged to a skilled nursing facility or home health	0.2%

Source: Abt Associates analysis of MCCM portal data (n=769 beneficiaries discharged from MCCM).

Note: Percentages are column percentages. Analysis based upon 1,092 beneficiaries enrolled in MCCM as of June 30, 2017. Categories (rows) in the table are mutually exclusive, with one reason counted for each beneficiary. Figures represent the percentage of 769 MCCM enrollees who left MCCM. The number of MCCM users transitioning to MHB is reported as a higher number in Section 6, because hospices may have misreported the transition to MHB in the MCCM portal, or beneficiaries may have transitioned to MHB after leaving MCCM for one of the other reasons listed in the portal. (For example, a beneficiary could have voluntarily disenrolled from MCCM and later enrolled in MHB). Beneficiaries discharged for cause were disruptive or abusive to hospice staff, or the beneficiary's home was unsafe for hospice staff to visit. The two beneficiaries who transferred to another MCCM hospice were considered discharged from the original hospice, but were still receiving MCCM services. Free response items were when the hospice typed in their own answer instead of using a pre-populated option within the portal. Similar free response entries were then combined into a larger category to aid the analysis.

2.4 Conclusion

As of April 2018, a large number of hospices, 97 in total, were implementing MCCM. This is lower than the 141 hospices initially selected to participate in MCCM. Hospices withdrew from MCCM for a variety of reasons, including concerns about eligibility criteria, costs that exceeded the $400 PBPM payment, and data reporting requirements. The hospices that remain in MCCM in many ways are different from other hospices nationwide that are not participating. Future analyses will control for differences between hospices that do and do not participate, to understand the true impact in hospices that implemented the model. The results of these analyses, however, may not be generalizable to all hospices nationwide.

The MCCM hospices that are actively participating in the model have very different levels of enrollment, with eight hospices caring for 58.6 percent of all MCCM-enrolled beneficiaries, and 21 hospices having no enrollment as of June 30, 2017. Due to concerns about eligibility criteria contributing to low enrollment, CMS adjusted several criteria, and enrollment increased following these changes.

The beneficiaries who enrolled in MCCM and later died were somewhat different from other Medicare decedents nationwide who were eligible for MCCM but did not enroll, in terms of age, diagnosis and multimorbidity, and geography. MCCM hospices report that beneficiaries in MCCM are enthusiastic about the model.

Section 2 focused on the hospices and beneficiaries that are participating in MCCM. Section 3 focuses on the services that beneficiaries receive while in MCCM. Understanding these services is important for understanding how the model may be impacting end-of-life care for those in the model.

3. What Elements of Care Do MCCM Enrollees Receive?

Each MCCM enrollee receives specified services under a plan of care developed to meet the person's individual needs. MCCM hospices conduct ongoing assessments of beneficiaries in the model, provide supportive services, and coordinate care with other providers in the community. Unlike under MHB, beneficiaries enrolled in MCCM can receive treatment for their terminal condition while also receiving MCCM services. An important aspect of this evaluation is to understand the care MCCM enrollees receive under the model, how participating hospices deliver this care, and what non-MCCM services enrollees receive under Medicare.

This section addresses the following research question:

- *What are the elements of care delivered under this model?*

Key Findings about MCCM Services

- MCCM enrollees who died prior to June 30, 2017 had an average of 10.6 encounters per month under the model; of these, 3.7 were with a care coordinator, 2.7 with a nurse, and 2.4 with a social worker. On average, each encounter included 4.1 services. (Section 3.1.2)
- Three-quarters of encounters were in person and most of the rest were by telephone. Most encounters were with patients, but caregivers were included in more than half. (Section 3.1.3)
- Enrolled beneficiaries spent an average of 64 days in MCCM, but 41 percent were in MCCM for less than a month. (Section 3.1.4)
- During the last 90 days of life, MCCM enrollees experienced, on average, 1.5 ED visits, 1.2 inpatient admissions, and total Medicare spending of $30,741. (Section 3.2)
- Nearly 40 percent of MCCM enrollees received home health care for some portion of the time they were enrolled in MCCM, on average 4.1 home health visits per month. (Section 3.2.3)
- During case studies, we learned that MCCM hospices are often part of an organization that also includes a home health agency, opening new avenues for relationships between these hospices and home health agencies. (Section 3.2.3)
- Use of in-home respite was rare; only 3.5 percent of MCCM enrollees received these services under the model. (Section 3.1.3)
- MCCM enrollees and their caregivers whom we interviewed reported considerable satisfaction with the model, especially the care coordination aspects of MCCM that include both logistical support and emotional support. (Section 3.3)

3.1 Care Received by MCCM Enrollees

Medicare beneficiaries enrolled in MCCM can receive a variety of services under the model. MCCM services consist of routine home care, which is one of the four levels of care provided under MHB. MCCM enrollees can also receive in-home respite care, to support their caregivers by providing non-

medical services to the beneficiary for short periods of time.[40] Each MCCM enrollee receives comprehensive assessments, care coordination, and case management,[41] in addition to services defined by the beneficiary's plan of care such as medication administration, wound care, medical social encounters, nutritional support, and bereavement counseling. Care under the model is delivered by nurses, social workers, home health aides, chaplains, dietary counselors, other counselors, volunteers, therapists,[42] and pharmacists.

MCCM services must be available 24 hours a day, 7 days a week, and 365 days a year. Services covered under the traditional MHB, but not covered under MCCM, can be billed separately under Medicare Parts A, B, and D if medically necessary.[43] For example, speech therapy, occupational therapy, physical therapy, medications, and DME are available to MCCM enrollees under Medicare A, B, and D, but are not covered under MCCM.

We define two metrics for care under the model used in this section—encounters and services—below, and further illustrate their relationship in Exhibit 3.1. See Appendix A, Section A.5.6 for additional information on these metrics.

> ***Encounters***. An MCCM encounter is defined as any recorded action by an individual provider to or for an MCCM enrollee or caregiver/family member.
>
> ***Services***. A service consists of direct care or care coordination provided during an encounter. Each provider may perform multiple services during a single encounter. For example, a care coordinator may perform both a caregiver conference and advance care planning, and a nurse may both provide care for a wound and discuss case management needs.

MCCM hospices report the encounters they provide to MCCM enrollees or their caregiver, through the service and activity log (SAL) on the MCCM portal. For each encounter, MCCM hospices document the encounter date, the type(s) of professionals who provided care, and the type(s) of services provided. Through December 31, 2017, hospices could report encounters so that multiple providers (e.g. social worker and nurse) were listed for the encounter and all services provided by those multiple providers were attributed to each provider. Starting on January 1, 2018, the MCCM portal was changed so that only a single provider was listed for each encounter and only the services associated with that provider were listed. As a result, the number of services listed in this report may be inflated due to a service being attributed to multiple providers. In future reports, we will compare the number of services recorded before and after this change to better understand how the change impacted reporting.

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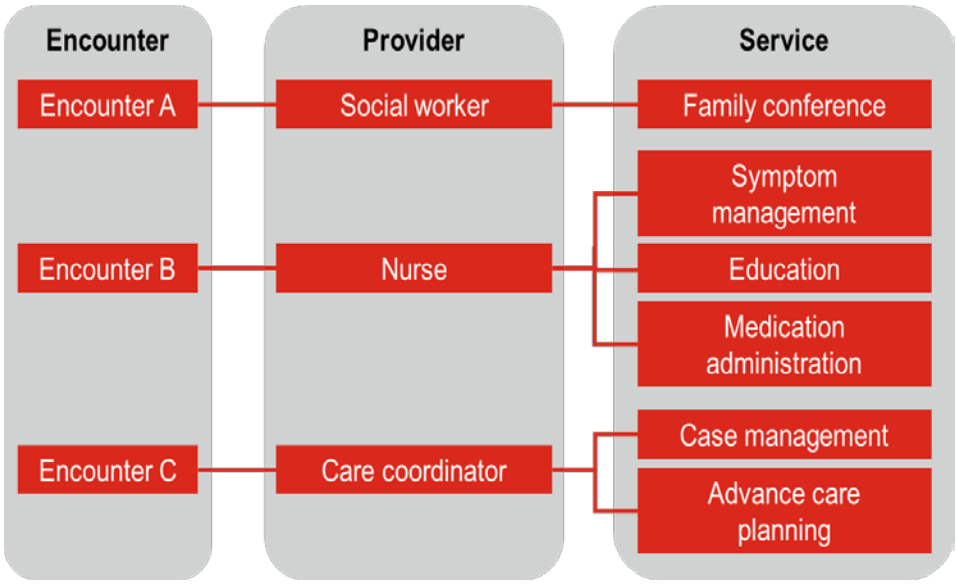
[40] Two other levels of care under MHB that are not available under MCCM are reserved for periods of crisis where additional services are needed to manage patients' symptoms: the continuous home care level, when additional services may allow the patient to remain at home (beyond routine home care), and in severe instances, the general inpatient level of care, when the patient has symptoms so severe they can be addressed only in an institutional setting.

[41] Case management involves continuous oversight of a patient's care. Case management includes care coordination, which ensures that the patient is referred to appropriate providers, who get the information they need to provide appropriate care, in a timely manner.

[42] Not including speech, occupational, or physical therapy.

[43] The similarities and differences between care covered under the MHB and care covered under MCCM appear in Exhibit 1.1.

Exhibit 3.1: Relationship between MCCM Encounters and Services



3.1.1 Encounters and Services Provided under MCCM

MCCM enrollees that died prior to June 30, 2017 (or implicitly, their families or caregivers[44]) received a total of 35,470 recorded[45] services during 8,561 encounters with MCCM providers, between January 1, 2016 and June 30, 2017.[46] The percentage of encounters by type of MCCM provider, and the average number of services provided during encounters, are displayed in Exhibit 3.2. Care coordinators provided one-third of all MCCM encounters (33.1 percent), followed by social workers and nurses (22.5 percent and 20.3 percent of encounters respectively). Less than three percent of MCCM encounters were provided by physicians and nurse practitioners combined. Chaplains, bereavement counselors, and spiritual counselors provided 7.3 percent of encounters combined. There were just a few encounters provided by music therapists, other spiritual counselors (distinct from chaplains), nutritional counselors, pharmacists, or pet therapists, and none recorded provided by art therapists.

On average, each encounter included 4.1 services, with about half of encounters having more than three services, and the most complex encounter having 16 services. Care coordinators, social workers, and nurses (RNs and licensed practical nurses) each provided an average of five services during an encounter.

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44 We explore the recipients of MCCM encounters in Section 3.1.3.

45 Activity checkbox indicators for services performed during encounters were not *required* fields in the MCCM portal, so our estimate of 35,470 is an undercount: notably, there were no specific services recorded in 72 out of 8,561 encounters (slightly less than 1 percent).

46 Analyses in this section include a calculation of rates of encounters/services per month in MCCM, which requires knowing the total MCCM enrollment length through death. We present characteristics of all beneficiaries that ever enrolled in MCCM n Section E.3.1 of Appendix E in Exhibits E.10 through E.18.

Exhibit 3.2: MCCM Encounters and Services, by Provider Type

MCCM Provider	Percentage of Encounters (N = 8,561)	Total Services	Average Number of Services per Encounter
Care coordinator	33.1%	13,516	4.8
Social worker	22.5%	8,563	4.5
Nurse	20.3%	8,758	5.0
Aide	11.8%	1,999	2.0
Chaplain	6.3%	1,344	2.5
Volunteer	1.9%	405	2.5
Hospice physician	1.7%	268	1.8
Bereavement counselor	0.9%	129	1.6
Nurse practitioner	0.5%	244	5.4
Massage therapist	0.5%	99	2.3
Other therapist	0.3%	67	3.0
Music therapist	0.1%	18	2.0
Other spiritual counselor	0.05%	19	4.8
Nutritional counselor	0.04%	20	6.7
Pharmacist	0.04%	11	3.7
Pet therapist	0.01%	10	10.0
Art therapist	0.0%	0	N/A
Total	100.0%	35,470	4.1

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring from January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. "Service" refers to the type of care or care coordination taking place during the encounter. Typically, multiple services are provided during a single encounter. Prior to January 1, 2018, service data were reported in one encounter record when multiple providers met with the patient at the same time. As a result, the "average number of services per encounter" column may be inflated because there is no way to disaggregate the service data by provider type. Starting January 1, 2018, all data are now collected in separate encounter records for each provider.

3.1.2 MCCM Encounters per Enrollee per Month

Overall, the 595 MCCM enrollees who died between January 1, 2016 and June 30, 2017 had 8,561 encounters; an average of 10.6 encounters per enrollee per month during their MCCM enrollment.[47,48] Less than one quarter of these decedents had fewer than 4.2 encounters per month, and more than one

[47] Monthly rates of encounters were calculated as follows: we totaled each enrollee's number of encounters and divided that by their length of enrollment in MCCM in days. This produces a daily rate of encounters, which we multiplied by 30 to scale to a monthly rate. One caveat to this method is that the estimate is subject to the influence of outliers. An alternate calculation method would be to take the total number of encounters (8,561) and divide it by the total number of MCCM days of enrollment (37,908) and again multiply by 30 to determine encounters/month, yielding (30*8561/37908) = 6.8 encounters per month. However, the drawback of this second strategy is that the estimate is in aggregate, and does not allow us to tie back the monthly rates to individuals and their characteristics for analysis.

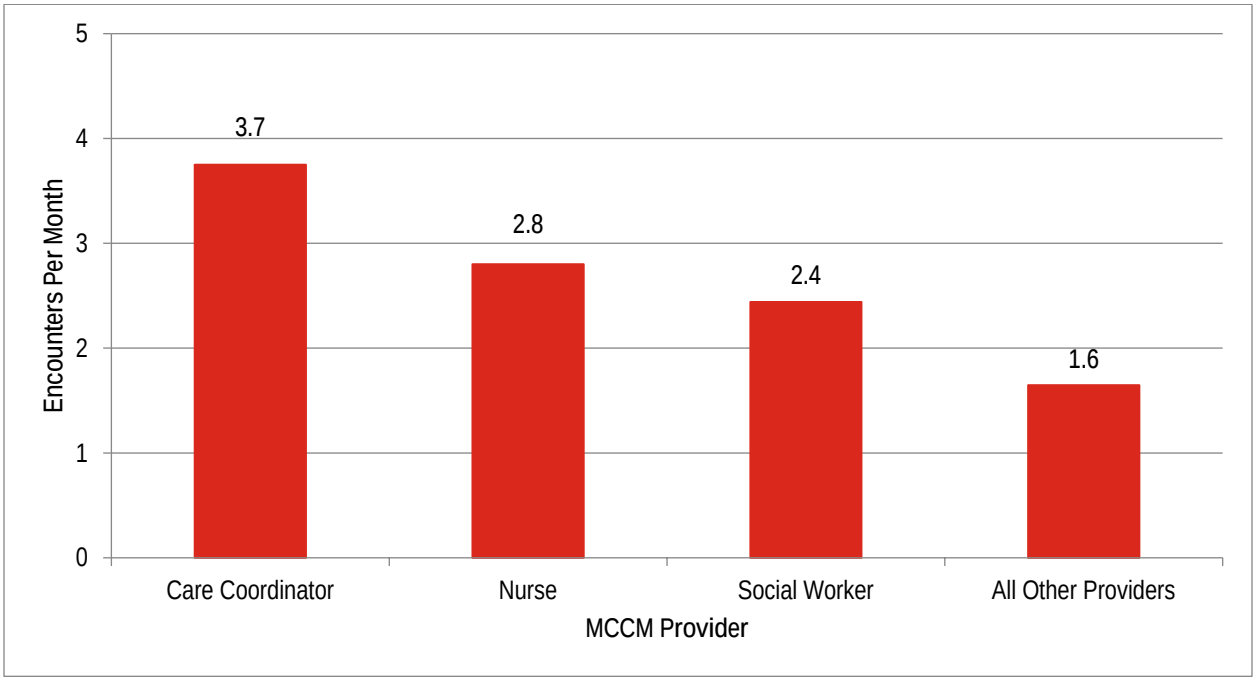
[48] An alternative approach to determine encounters per beneficiary is to simply divide the number of encounters by beneficiary. Performing that calculation shows there are 14.4 encounters per beneficiary. There is variation in how long enrollees are enrolled in MCCM and this overall average would be driven down by beneficiaries that have short stays in MCCM.

quarter had 12.9 encounters per month or more. About half of MCCM decedents had more than seven encounters per month. Some decedents had a great many more encounters per month, and some had very few—there was a wide range.

Monthly Encounters by Provider Type

Among the average 10.6 encounters per enrollee per month, care coordinators were responsible for 3.7 encounters, nurses for 2.8 encounters, and social workers for 2.4 encounters each month, as shown in Exhibit 3.3. There was also about one encounter per month for aides, and about one encounter every two months, on average, for chaplains.

Exhibit 3.3: MCCM Encounters per Month, by Provider Type



Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring from January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. Overall, 10.6 encounters per month were provided. Nurse encounters include encounters from registered nurses, nurse practitioners, and licensed practice nurses combined.

Monthly Encounters across Diagnosis, Multimorbidity, and Functional Status

The rate of encounters each month varied for MCCM enrollees with different diagnoses and multiple diagnoses, and for enrollees with different functional status (as assessed by hospice staff at MCCM intake),[49] as shown in Exhibit 3.4.

- *Diagnosis and Multimorbidity*. Beneficiaries with only cancer (362 out of 595 MCCM decedents) had slightly more encounters per month (11.0) than the average of 10.6, while those with only CHF or

[49] An overview of clinical conditions (including diagnosis, multimorbidity, and functional status) is presented in Exhibit 2.11 in Section 2.3.

COPD had fewer encounters per month than average (9.9 per month for CHF and 8.4 per month for COPD).

- *Functional Status*. Beneficiaries classified as independent (85 out of 595 MCCM decedents) received an average of 12 encounters per month, as did enrollees classified as completely dependent on others. Those beneficiaries classified as needing some assistance had fewer encounters per month (9.6 on average). It is not clear why beneficiaries classified as independent would need just as many encounters as those classified as completely dependent. We will continue to monitor this pattern, and will investigate other factors that may explain this finding.

Exhibit 3.4: MCCM Encounters by Diagnosis, Multimorbidity, and Functional Status

	MCCM Decedents – Cohort 1	Total Encounters	Encounters per Month
Total	595	8,561	10.6
Diagnosis & Multimorbidity			
Cancer	362	5,193	11
CHF	80	1,356	9.9
COPD	56	1221	8.4
Other (including HIV)	35	360	11.1
COPD + CHF	29	229	11.4
Cancer + COPD	29	183	10.3
Cancer + COPD + CHF	4	19	8
Functional Status			
Independent	85	1,358	12.0
Needs some assistance	356	5,613	9.6
Dependent	154	1,590	12.0

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. Functional status is assessed by hospice staff during MCCM intake/enrollment. CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

3.1.3 MCCM Encounters and Services per Enrollee

Enrollees with Encounters by Type of MCCM Provider

Most enrollees who died prior to June 30, 2017 had encounters with a social worker (77.5 percent), a care coordinator (70.8 percent), and a nurse (62.9 percent), as shown in Exhibit 3.5. Almost one fifth were visited by a chaplain (18.5 percent). Other providers were less common: for example, just 20 decedents (3.4 percent) met with a bereavement counselor and only three decedents (0.5 percent) met with a pharmacist.

Exhibit 3.5: MCCM Enrollees with Encounters, by Provider Type

MCCM Provider	Percentage of MCCM Decedents – Cohort 1 Having an Encounter with Each Provider (N = 595)
Social worker	77.5%
Care coordinator	70.8%
Nurse	62.9%
Aide	18.5%
Chaplain	18.5%
Volunteer	6.6%
Hospice physician	5.9%
Bereavement counselor	3.4%
Nurse practitioner	3.9%
Massage therapist	1.3%
Other therapist	1.3%
Music therapist	0.5%
Other spiritual counselor	0.5%
Nutritional counselor	0.5%
Pharmacist	0.5%
Pet therapist	0.2%
Art therapist	0.0%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider.

Mode of MCCM Encounter (In Person, Telephone, Other)

Three quarters of all MCCM encounters were in person (75.0 percent total; 72.9 percent in the beneficiary's home and 2.1 percent in a facility), as shown in Exhibit 3.6. Most of the rest (24.7 percent) were conducted by telephone. Less than 0.1 percent of encounters were by mail, email, or video conference.

Exhibit 3.6: MCCM Encounters, by Mode

Delivery Mode	Percentage of Encounters (N = 8,561)
Home/residence	72.9%
Phone	24.7%
Facility bedside	2.1%
Mail/email	0.3%
Skype	<0.1%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider.

All of the 10 cohort 1 hospices visited for a case study explained that they provide an initial in-person assessment, as required, for each MCCM enrollee. They then conduct in-person visits and telephone check-ins to meet enrollee and caregiver needs, and they conduct subsequent comprehensive assessments as the model requires.

- Three of the 10 cohort 1 MCCM hospices we visited conduct all visits in person.
- Three of the 10 cohort 1 MCCM hospices we visited focus on telephone check-ins and support, with infrequent in-person visits.
- Four of the 10 cohort 1 MCCM hospices we visited conduct either monthly or twice monthly in-person visits, with telephone check-ins as needed in between.

MCCM requires participating hospices to hold interdisciplinary group meetings to discuss the care they deliver to MCCM enrollees. Many of these hospices reported that they initially had anticipated MCCM to be more of a telephonic intervention when they applied to participate. But in their meetings, it became clear that more in-person visits were necessary to meet beneficiaries' needs. Most hospices reported that they also help connect MCCM enrollees with appropriate community services and assistance programs (e.g., Meals on Wheels, food stamps), which is usually accomplished by social workers, over the phone.

Recipients of MCCM Encounters

While most MCCM encounters are for enrolled beneficiaries, the model also provides support to caregivers (as does MHB). A single encounter may benefit the enrollee, and also their caregivers.

Overall, 89.4 percent of MCCM encounters directly benefited the enrolled beneficiary, as shown in Exhibit 3.7. Almost half of encounters (44.7 percent) were for family members, and almost one in eight (12.0 percent) for caregivers (not family). Encounters involving the caregiver were sometimes in conjunction with the enrollee and sometimes for the caregiver alone (e.g., bereavement counseling).

Exhibit 3.7: Recipients of MCCM Encounters

Encounter Recipient	Percentage of Encounters (N = 8,561)
Enrollee	89.4%
Family	44.7%
Caregiver (not family)	12.0%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. Note that single encounters may benefit multiple individuals.

Quality of Care during MCCM Encounters

A key objective of MCCM is to improve the quality of end-of-life care for Medicare beneficiaries. To this end, we examined MCCM encounter records for indication of clinical services that reflect high-quality care: comprehensive assessments,[50] depression screenings, pain screenings, and shortness of breath (i.e., dyspnea) screenings.[51]

Among the 8,561 total encounters provided to MCCM enrollees who died prior to June 30, 2017, more than half included pain screening, and nearly half included depression screening, as shown in Exhibit 3.8. Since the average enrollee had 10.6 encounters per month, we would not necessarily expect depression screening as part of every encounter, but it may be worthwhile to screen for pain during most encounters.

Over 90 percent of all MCCM enrollees were screened for depression during at least one MCCM encounter, and the same was true for pain screening and shortness of breath screening. However, only 60.7 percent of beneficiaries received an encounter that included a comprehensive assessment while enrolled in MCCM. Further analysis will be conducted to understand what, if any, improvement can be made in this area (or if the low numbers are due to a lack of reporting when these assessments are actually being provided).

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50 Comprehensive assessments in MCCM follow the same requirement as the MHB Conditions of Participation (42 CFR 418.54), in which the hospice must conduct and document a beneficiary-specific comprehensive assessment that identifies the patient's need for services, including physical, psychosocial, emotional, and spiritual care. Notes to Exhibit 3.8 describe how comprehensive assessments are identified in the portal data. Further information is available in Appendix A in Section A.5.6.

51 Advance care planning and spiritual support services also reflect quality of care; 68.4 percent of MCCM enrollees who died prior to June 30, 2017 had received advance care planning, and 53.8 percent received spiritual support, during at least one MCCM encounter, as shown in Exhibit 3.9.

Exhibit 3.8: MCCM Encounters Reflecting Quality of Care

Service Indicating Quality of Care	Encounters with Each Service (N = 8,561)	Percentage of Encounters with Each Service	MCCM Decedents – Cohort 1 Receiving Each Service (N = 595)	MCCM Decedents – Cohort 1 Percentage Receiving Each Service
Comprehensive assessment	1,339	15.6%	361	60.7%
Depression screening	3,949	46.1%	543	91.3%
Pain screening	4,287	50.1%	581	97.6%
Shortness of breath screening	4,303	50.3%	579	97.3%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. "Service" refers to the type of care or care coordination provided during the encounter.

The version of the MCCM portal used to construct this table did not specifically identify whether an encounter was a comprehensive assessment. Instead we labeled encounters as a comprehensive assessment if it was:

1. *Provided by a care coordinator, RN/LPN, nurse practitioner, and/or hospice physician*
2. *Provided in-person or at facility bedside (not electronically)*
3. *Provided to the beneficiary (not a family member or caregiver) during an initial visit, or following a change in the beneficiary's status, or following an ED visit/hospitalization.*

The MCCM portal did include a field indicating the date of an enrollee's initial comprehensive assessment. If this date corresponded to an encounter date, we then determined whether the encounter on that date met the above criteria for being a comprehensive assessment. We found that 587 (98.7%) of enrollees had an initial comprehensive assessment date recorded in the MCCM portal, but the above criteria were met for only 361 (60.7%) enrollees, as displayed above in the exhibit.

Respite Care Encounters

MCCM hospices are expected to offer in-home respite services[52] as needed by enrollees, as a condition of participation in the model. Respite care supports caregivers by providing non-medical services to the beneficiary for short periods of time, as a reprieve from caregiving duties.

Among the 595 enrollees who died prior to June 30, 2017, just 22 (3.7 percent) had received any in-home respite services for caregivers. Moreover, among the 8,561 MCCM encounters provided, only 31 (0.4 percent) were for respite care. These findings are consistent with what we learned during case studies, in which none of the cohort 1 hospices we visited reported providing in-home respite care to any MCCM enrollees. It is not clear whether this is because

> *"[MCCM] has been a real help to us, I really think it's the missing link…she is not ready for hospice, [and I know] because I have somebody in hospice. I think it helps keep her out of the hospital, by regular maintenance… Keeping her out of the hospital, keeping her well and at home, is the goal here, because that's where everybody's quality of life is good."*
>
> –Daughter of MCCM enrollee

[52] Under the traditional MHB, respite care provides for the patient to be placed in an inpatient facility to allow a brief respite for caregivers, and can occur only in a Medicare-approved inpatient facility. MCCM respite care can be provided only in-home and allows a staff member (e.g., an aide) or volunteer to remain with the enrollee in the enrollee's own home to let the usual caregiver have a brief respite.

caregivers did not need or request respite services, because MCCM hospices did not offer these services, or because hospices viewed the MCCM payment ($400 PBPM) as insufficient to support respite services. We will continue to monitor provision of respite services, and will explore this topic in future case studies.

Enrollees Receiving Services, by Type of MCCM Service

Case management, symptom management, education, and family support (and conferences) are all MCCM services, and these were provided to the majority of MCCM enrollees who died prior to June 30, 2017, as shown in Exhibit 3.9. Advance care planning services were provided to more than two-thirds of decedents (68.4 percent). Fewer decedents received (or perhaps needed) wound care (13.4 percent), and volunteer companionship services were provided (or perhaps needed) to only a few (8.7 percent).

Exhibit 3.9: Enrollees Receiving MCCM Services, by Service Type

MCCM Service	Percentage of MCCM Decedents – Cohort 1 Receiving Each Service (N = 595)
Care management: Assess needs	86.1%
Education	84.2%
Care management: Discuss service needs	79.3%
Family support	78.7%
Symptom management	72.4%
Advance care planning	68.4%
Care management: Follow up	68.1%
Family conference	66.4%
Transitional planning	58.2%
Spiritual support	53.8%
Care management: Referral made	37.5%
Care management: 1:1 consult with non-physician	35.1%
Medication administration	32.1%
Care management: 1:1 consult with physician	31.4%
Other	28.7%
Wound care	13.4%
Volunteer companionship	8.7%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Service" refers to the type of care or care coordination provided during the encounter. Note that multiple services may be provided during a single encounter and each percentage represents a cell percentage indicating what percentage of decedents had a particular MCCM service.

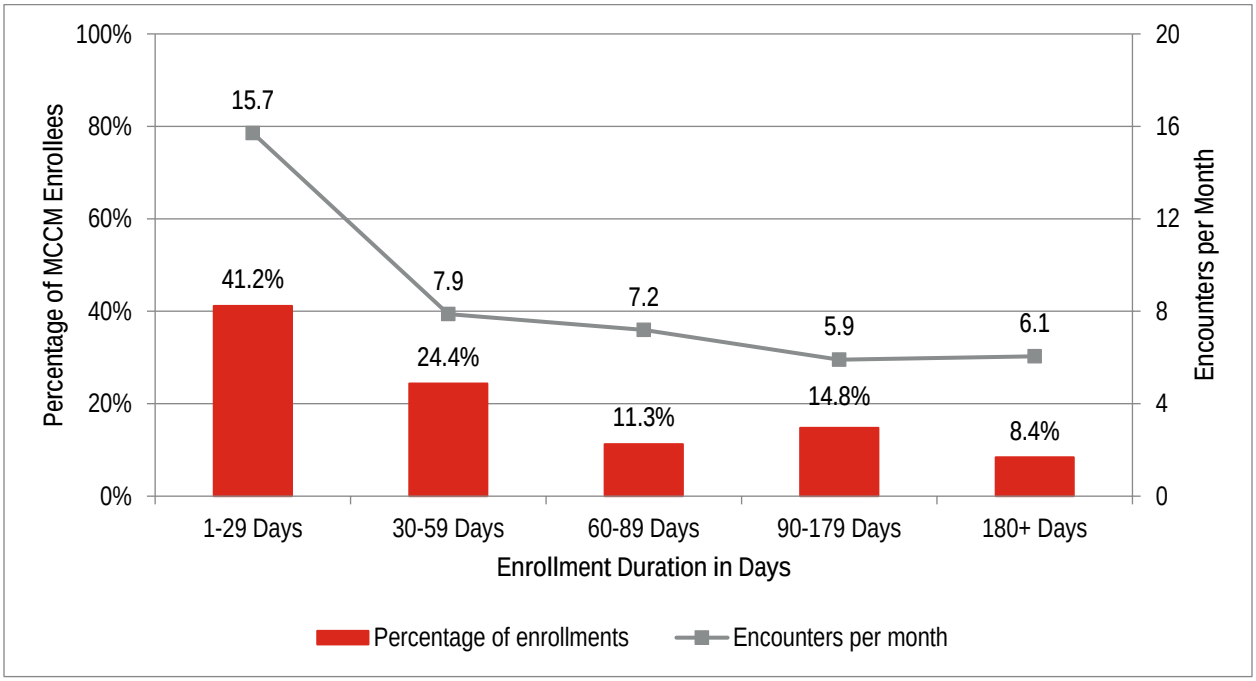
3.1.4 Duration of MCCM Enrollment and Encounters per Month

MCCM enrollees who died prior to June 30, 2017 spent an average of 64 days in the model, with half having 38 days or more in the model, a quarter having fewer than 13.5 days, and another quarter having more than 81 days. The percentage of enrollees by MCCM enrollment durations (1–29, 30–59, 60–89, 90–179, or 180+ days) is presented in Exhibit 3.10; at each enrollment duration the corresponding monthly rate of encounters among those enrollees is also displayed. About two-fifths of enrollees had less than a month in MCCM, during which they had on average 15.7 encounters per month. Encounters per month

were only 7.9 for those enrolled 30–59 days, and in general, the number of encounters per month decreased as duration in MCCM increased.

These findings suggest that there were different types of beneficiaries in MCCM: those who enrolled for just a few weeks and had a number of encounters that when inflated to a monthly level was relatively high, and those who entered MCCM several months before death and received fewer encounters each month. As the model matures, we will continue to monitor the patterns of encounters across length of MCCM enrollment.

Exhibit 3.10: Number of Encounters per Month, by Length of MCCM Enrollment



Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider.

3.2 Non-MCCM Medicare Services Received by MCCM Enrollees

A hallmark of MCCM is that beneficiaries continue to see all types of providers and receive Medicare-covered services for medically necessary care, including treatment for their terminal condition if they desire. In contrast, under MHB, beneficiaries forgo coverage for any treatment of their terminal illness or related conditions. The sections that follow explore the extent to which MCCM enrollees used non-MCCM Medicare covered services while in MCCM.

3.2.1 Medicare Utilization in the Last 90 Days of Life

To highlight patterns of end-of-life care among MCCM enrollees, we present in Exhibit 3.11 Medicare utilization in the last 90 days of life, which roughly corresponds to the average time between MCCM

entry and death.[53] Specifications for all Medicare utilization performance measures appear in Appendix A, Section A.5.7.

During the last 90 days of life, the average MCCM enrollee who died had 1.2 inpatient hospital admissions, 0.2 hospital admissions[54], 0.5 readmissions within 30 days after a hospital admission, 1.5 ED visits, 19.2 evaluation and management visits, and 1.5 ambulance services. Additionally, in the last 90 days of life, about one in three (32.5 percent) MCCM enrollees received home health services. Additional time periods (end-of-life Medicare utilization in the last 30, 180, and 365 days of life) for these same measures are presented in Exhibit E.19 of Appendix E.3.2.

Exhibit 3.11: MCCM Enrollees' Medicare Utilization in the Last 90 Days of Life

Medicare Utilization Measure	Average Utilization during the Last 90 Days of Life
Inpatient admissions	1.2
Intensive care unit admissions	0.2
Inpatient 30-day readmissions	0.5
Emergency department visits	1.5
Evaluation & management visits	19.2
Percent of beneficiaries receiving home health visits (%)	32.5%
Ambulance services	1.5

Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

Note: Utilization measures calculated using data from Medicare claims, as described in Appendix A.

3.2.2 Medicare Expenditures in the Last 90 Days of Life

Medicare expenditures summarize the intensity of service use and cost (including both MCCM and non-MCCM services) while enrollees are in MCCM. Total Medicare spending for MCCM enrollees in the last 90 days of life is shown in Exhibit 3.12.

In the last 90 days of life, the average MCCM enrollee had $30,741 in Medicare expenditures, over 40 percent of which was for inpatient hospital services ($12,664). Hospice,[55] outpatient, and physician/supplier Part B file expenditures each were responsible for between 15 and 17 percent of expenditures. Home health, SNF, and DME combined accounted for the remaining percentage of expenditures.

Details and additional results are in Appendix E Section E.3.2 (Exhibit E.20), which shows expenditures in the last 90 days of life and also the last 30, 180, and 365 days, by Medicare expenditure type (inpatient, SNF, etc.) and by diagnosis, multimorbidity, functional status, and dual eligibility. Highlights of estimates across subgroups include:

---

53 As noted in Section 6.2, average enrollment in MCCM occurred approximately three months (88.5 days) before death.

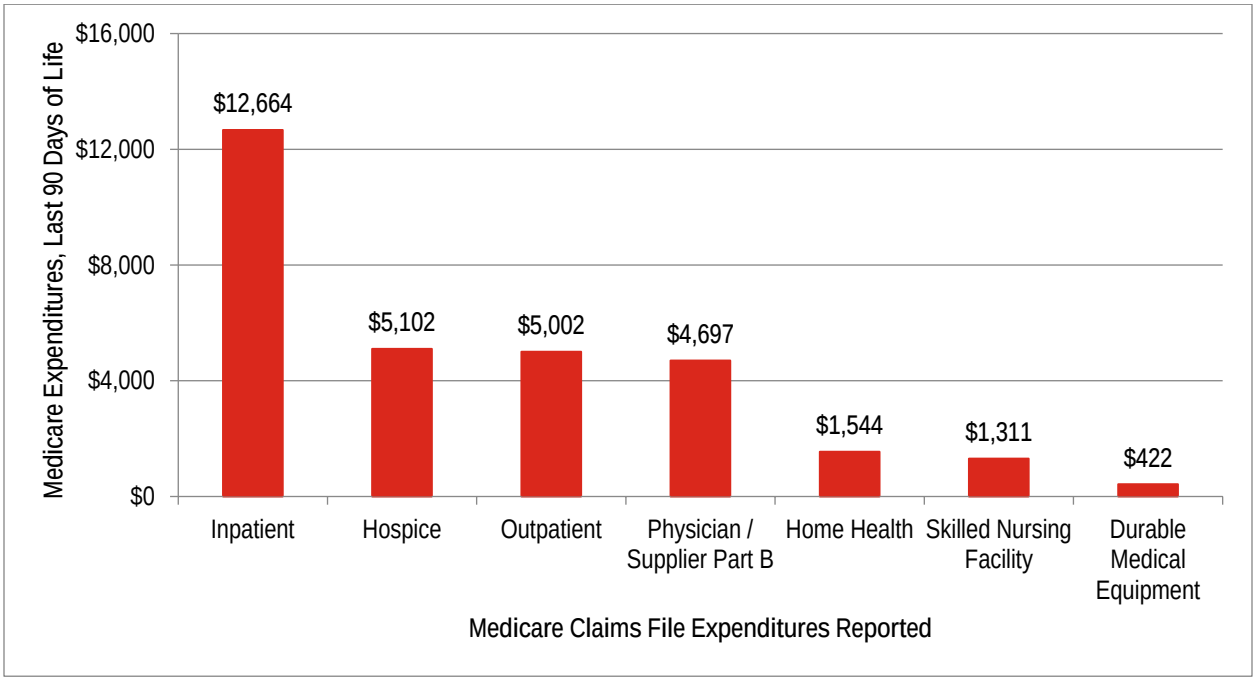
54 This could include time spent in the ICU.

55 Hospice expenditures encompass all payments recorded on the hospice claims file, for the MHB as well as the per beneficiary per month payment paid to MCCM participating hospices.

- MCCM enrollees with cancer, COPD, and CHF (i.e., had all three diagnoses) had the highest rate of spending in the last 90 days of life ($45,773) and those with CHF and COPD but no cancer had the lowest rate ($26,266).
- Medicare spending increased as functional status decreased. In the last 90 days of life, spending was $26,809 for functionally independent MCCM enrollees, $29,239 for enrollees who need some assistance, and $36,419 for enrollees classified as completely dependent on others.
- Dual eligible enrollees had higher Medicare spending: $35,946 in the last 90 days of life vs. $30,220 for enrollees eligible for Medicare but not Medicaid.

Comparing MCCM enrollees' utilization and expenditures with those of matched beneficiaries will be the primary objective of future evaluation reports.

Exhibit 3.12: MCCM Enrollees' Medicare Expenditures in the Last 90 Days of Life



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

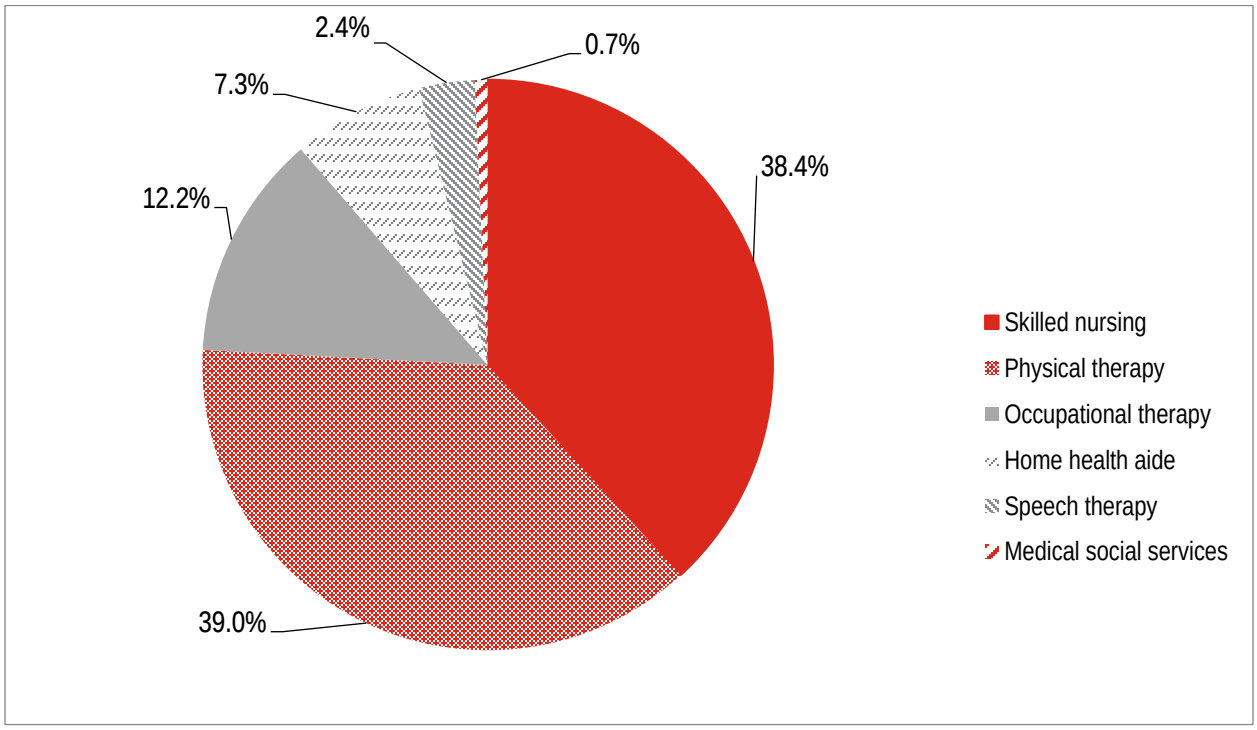
3.2.3 Home Health Care Overlap with MCCM Services

MCCM enrollees are entitled to receive services under the Medicare home health benefit when medically necessary. Nearly 40 percent of the enrollees who died prior to June 30, 2017[56] received home health care for some portion of the time they were enrolled in MCCM. Moreover, these beneficiaries received on average 4.1 home health visits per month, as shown in Exhibit 3.13. More than half of these visits (2.2 per

[56] For these analyses, one of the 595 deceased MCCM enrollees was omitted due to an inconsistent date of death (recorded in the Medicare enrollment database as occurring prior to recorded dates of hospice service), leaving a total analytic sample of 594.

month) were for therapy services: 1.6 visits per month (39.0 percent) that involved physical therapy, 0.5 visits per month (12.2 percent) that involved occupational therapy, and 0.1 visits per month (2.4 percent) that involved speech therapy. MCCM does not cover any of these services. The remaining visits (1.9 visits per month) involved services (nursing, aide, and medical social services) that MCCM does cover. Further details of home health use by MCCM enrollees are presented in Exhibit E.21 (Appendix E, Section E.3.2).

Exhibit 3.13: Distribution of Average 4.1 Home Health Visits per Enrollee per Month, by Type



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017 (excluding one enrollee with an apparent error in recorded date of death).

Note: Home health agencies record the calendar date of home health visits on the claim. We compared those dates to MCCM enrollment dates and only counted visits that occurred after MCCM enrollment. We aggregated visits by calendar month.

MCCM enrollees with CHF and COPD (i.e., had both diagnoses) but no cancer had the most home health visits, at 5.4 per month, while MCCM enrollees with cancer, COPD, and CHF had the fewest home health visits, at 1.5 per month. However, small sample sizes may explain a portion of these differences. Among other comorbidity categories, home health care use was more consistent, and ranged from 4.1 per month (hyperlipidemia) to 4.7 per month (chronic kidney disease). During case study interviews, some hospice staff suggested that MCCM enrollees who are being actively treated for cancer use fewer home health services because they have many other appointments for chemotherapy, radiation treatment, and other services related to their cancer treatment.

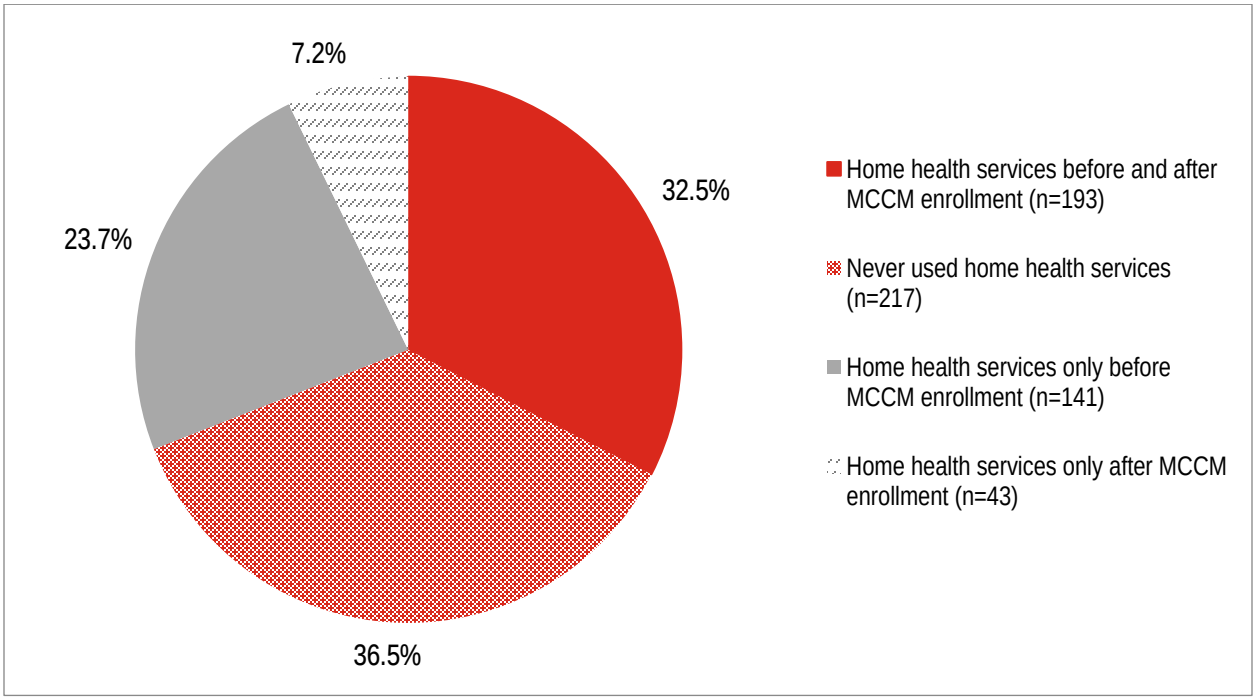
CMS is concerned about whether MCCM enrollees are receiving redundant or duplicative services under both home health care and MCCM. To that end, CMS is performing a 20 percent chart review of MCCM enrollees who received home health care, to better understand this overlap. During our case studies, two

MCCM hospices told us that some of their MCCM enrollees also receive home health services, but they see a clear distinction between the two types of service.

Home Health Utilization Before and After MCCM Enrollment

The majority of MCCM enrollees (63.5 percent) used home health services at some point before death. A total of 141 (36.5 percent) used home health services only before MCCM enrollment, while 236 (39.7 percent) used home health services after enrolling in MCCM,[57] as shown in Exhibit 3.14. Only 43 decedents (7.2 percent) received home health services for the first time after enrolling in MCCM.

Exhibit 3.14: Timing of Medicare Home Health Services by MCCM Enrollees



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017 (excluding one enrollee with an apparent error in recorded date of death).

Note: Home health agencies record the calendar date of home health visits on the claim. We examined four categories: home health services before and after MCCM enrollment, home health services only before MCCM enrollment, home health services only after MCCM enrollment, and never used home health services. To place MCCM enrollees into one of those mutually exclusive categories, we looked for the presence of at least one home health visit that occurred before and/or after MCCM enrollment.

Referrals to MCCM by Home Health Agencies

During case studies, we learned that MCCM seemed to have opened new avenues for relationships between MCCM hospices and home health agencies. Most of the 10 cohort 1 MCCM hospices we visited told us that they receive MCCM referrals from home health agencies, often as enrollees are being discharged from (i.e., no longer qualify for) home health services. Referrals go in both directions. Three

[57] The 236 consists of 193 MCCM enrollees who had home health services before and after MCCM, plus 43 MCCM enrollees who had home health services only after MCCM enrollment.

MCCM hospices reported that they frequently refer beneficiaries to home health services if they do not meet the MCCM eligibility requirements, to ensure that important needs are being addressed, even if not through MCCM.

A primary explanation for the overlap in referrals is that many MCCM hospices are part of a larger organization that also includes a home health agency; four of the 10 cohort 1 hospices we visited also have a home health agency within their organization. Only one hospice we visited explicitly used overlap with home health services as an MCCM implementation strategy. This MCCM hospice does not have its own home health agency, and the home health agencies in its market do not offer home-based palliative care or hospice services. There is no competitive reason to avoid referrals to or from the home health agencies in their community. This MCCM hospice reported that they let the home health agency take the lead in clinical care for beneficiaries with both MCCM and home health, but carefully coordinate to avoid duplication of services. MCCM hospices we visited also suggested that they were initially unsure about whether CMS permitted MCCM enrollees to also use home health services under Medicare. After CMS clarified this issue, one MCCM hospice began actively referring its MCCM enrollees to home health services, especially beneficiaries who need extensive aide services. Fully one third of its MCCM enrollees now also receive home health services.

Four of the eight cohort 2 MCCM hospices we interviewed also have a home health agency within their organization. These hospices are planning to educate their home health agency staff about MCCM to facilitate referrals.

3.3 Care Coordination and Support Services Received by MCCM Enrollees

MCCM emphasizes care coordination, not only to reduce duplication of services (e.g., with home health care) but also to help enrollees access and use all medically necessary Medicare services. In particular, care coordination and logistical support may facilitate interactions with other care providers, and ensure that beneficiary treatment preferences and goals of care are acknowledged and respected by all providers, and access is not restricted. As shown in the conceptual framework in Exhibit 1.3, care coordination likely impacts the outcomes of the model. This section addresses the following research question:

- *Do the beneficiaries in the model have greater access to curative services, including medication?*

We interviewed 20 enrollees and/or their caregivers, who generally reported a high satisfaction with the services they received as part of MCCM. Enrollees reported a particular appreciation for the care coordination and logistics management assistance they received from their MCCM hospice, and stated that having someone from the hospice to help coordinate their care and medical appointments was very helpful.

> *"[I like] just having someone to facilitate between the medical professionals and myself – 'this is abnormal, this is outside the range, this is raising a red flag' – to make suggestions to my daughter."*
>
> –MCCM enrollee

Staff at several hospices we visited told us that MCCM beneficiaries with a cancer diagnosis have so many appointments that they sometimes request fewer encounters or check-ins from MCCM staff, and prefer telephone coordination. Other beneficiaries need in-person assistance with care coordination. For example, staff at one MCCM hospice told us about an enrollee who wanted to discontinue treatment for a terminal condition, but was uncomfortable discussing this with her physician. The hospice staff

accompanied the beneficiary to an appointment and facilitated the conversation between the beneficiary and physician about goals of care.

3.4 Conclusion

Beneficiaries enrolled in MCCM are eligible to receive a variety of services under the model while still retaining traditional Medicare coverage and access to treatment for their terminal condition. This distinction is the key feature of MCCM. An important aspect of this evaluation is to understand the elements of care MCCM enrollees receive under the model, how participating hospices deliver these services, and what non-MCCM services enrollees receive while they are enrolled in MCCM.

MCCM enrollees that died prior to June 30, 2017 received a total of 35,470 services during 8,561 encounters with MCCM providers, between January 1, 2016 and June 30, 2017, with each encounter on average including 4.1 services provided. During an average enrollment of over two months (63.7 days) in MCCM, encounters were provided at an average rate of 10.6 encounters per month, primarily with care coordinators, nurses, and social workers. Three-quarters of encounters were in person, with most of the remaining encounters conducted by phone. MCCM enrollees were the predominant recipients, but almost half of encounters also included caregivers.

Nearly 40 percent of MCCM enrollees also received home health care for some portion of the time that they were enrolled in MCCM and received on average 4.14 home health visits per month. During case studies, we learned that many MCCM hospices are part of an organization that also includes a home health agency. Interviewees also suggested that MCCM is leading to new relationships and better coordination between the hospices and home health agencies.

MCCM enrollees and their caregivers whom we interviewed reported considerable satisfaction with MCCM. In particular, they appreciate the care coordination aspects of MCCM, both for logistical support and emotional support, and assistance interacting with other providers about goals of care.

4. How Do Participating Hospices Implement MCCM?

CMS allows participating hospices considerable freedom in deciding how to implement and staff MCCM. This section details the various approaches to delivering services to MCCM enrollees, including staffing models, implementation challenges, and facilitators of success. It also discusses efforts to market MCCM to referring providers, and patterns observed among cohort 1 hospices regarding MCCM referrals.

Key Findings about MCCM Implementation

- Strong organizational leadership and well-defined teams and communication channels facilitate MCCM implementation. Prior experience with a palliative care program or a similar activity was advantageous for rapid MCCM implementation, because staff were familiar with the goals of both supportive services and treatment for serious illness, which is the framework of MCCM. (Section 4.4)
- Almost all cohort 1 MCCM hospices reassigned existing staff rather than hiring new staff. They train staff themselves and make use of CMS training materials. (Section 4.4)
- Most MCCM hospices we visited for case studies expect to lose money by participating in MCCM because they believe the costs of providing services through the model may exceed the $400 PBPM. Only a few hospices told us that they are explicitly tracking staff time spent on MCCM, to understand how their actual costs of implementing MCCM compare with the MCCM PBPM. (Section 4.1.5)
- Referrals to MCCM come from many sources: oncologists account for 40.5 percent of MCCM referrals, followed by primary care physicians. (Section 4.3)
- MCCM hospices use targeted approaches to inform specialists for MCCM-eligible diagnoses (e.g., cardiologists, pulmonologists) about the model. (Section 4.3)
- MCCM hospices recruit beneficiaries for the model in physician offices, hospitals, and other settings. (Section 4.3)

4.1 MCCM Implementation Approaches

MCCM requires a different staffing and organizational structure from traditional hospice offered through the MHB, as outlined in Exhibit 1.1 and Exhibit 1.2. Hospices participating in MCCM use various implementation approaches to leverage their staff and meet the unique needs of model enrollees. This section discusses how hospices prepared for MCCM, hired and trained their staff, and used technology to deliver care under the model. These analyses answer the following research questions:

- *How long did it take to implement the organizational changes necessary to deliver services?*
- *What costs do hospices incur in providing services?*

4.1.1 Preparations for MCCM

Interested hospices submitted MCCM applications to CMMI in June 2014.[58] CMMI notified applicants of their acceptance and their cohort assignments in July 2015. After a planning phase, cohort 1 began

[58] https://innovation.cms.gov/Files/x/MCCM-RFA.pdf

implementing MCCM in January 2016 and cohort 2 began implementation in January 2018. Most of the MCCM hospices we visited for case studies reported that they did very little planning for MCCM between submitting their application and receiving their cohort assignment, because they were unsure whether they would be accepted into the model. After CMS notified hospices of their acceptance, most hospices began preparing for MCCM by:

- Identifying operational changes to accommodate MCCM implementation
- Developing an outreach strategy for marketing the model to referral sources and producing marketing materials
- Assigning and training staff to deliver services to MCCM enrollees
- Customizing their electronic health records (EHRs) to support the model

The following sections address this research question:

- *How long did it take to implement the organizational changes necessary to deliver MCCM services?*

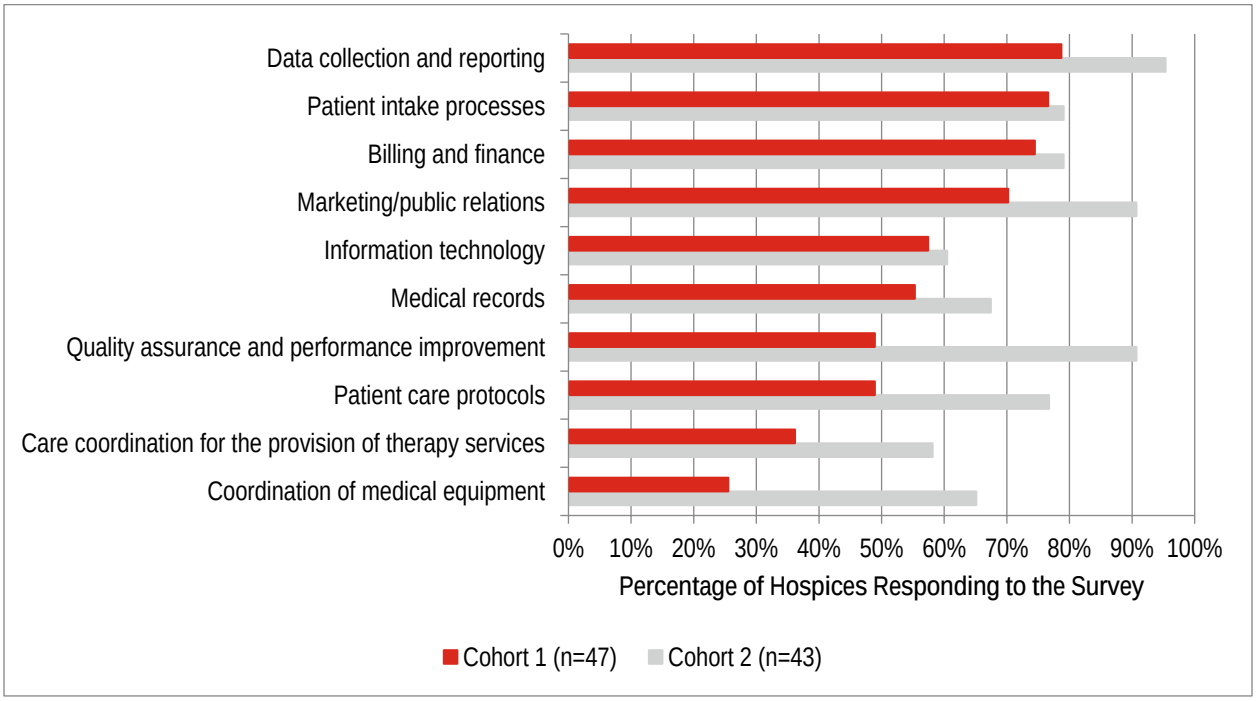
Preparation for MCCM occurred during a six-month ramp-up period prior to the start of model enrollment on January 1, 2016 for cohort 1 and January 1, 2018 for cohort 2. During this ramp-up period, CMS offered a number of training sessions and webinars for MCCM hospices, as discussed below in Section 4.4.1. Hospices were required to develop and submit an implementation plan for CMS review. Participating hospices each developed an outreach strategy and began to execute changes to business and clinical processes according to their implementation plan.

Changes in Business and Clinical Processes to Implement MCCM

More than two-thirds of hospices in cohort 1 reported changing their intake processes, data collection activities, and operating procedures related to reporting, marketing, public relations, billing, and finance, as presented in Exhibit 4.1. These changes corresponded with MCCM requirements. For example, hospices needed to create marketing materials and a marketing strategy to inform referral sources about the new MCCM services, and explain the process for referring beneficiaries. Hospices submit MCCM claims (based on a monthly payment amount) differently than they do MHB claims (based on a per diem rate), and this required changes to their billing and finance systems. These activities, and the staff time to accomplish them, represent an upfront cost of participating in the model that CMS does not directly reimburse.

More than two-thirds of cohort 2 hospices responding to our survey anticipated making even more changes than did cohort 1 hospices, in all aspects of business and clinical operations listed, other than care coordination for the provision of therapy services and information technology, as presented in Exhibit 4.1. This likely reflects the timing of survey administration—cohort 2 hospices were still in the process of identifying necessary operational changes to accommodate MCCM implementation. Cohort 2 may have recognized the need for more extensive changes, based on lessons learned from cohort 1 presented during pre-implementation discussions with CMS. When they took the survey, cohort 2 leaders had just returned from the CMS in-person training in Baltimore and had heard from cohort 1 hospice leaders about how to prepare for and overcome many of the potential challenges of MCCM implementation. The second round of the organizational survey will be helpful in more fully discerning any differences in actual implementation by cohorts 1 and 2 hospices.

Exhibit 4.1: Changes Made or Planned to Business and Clinical Operations for MCCM Hospices



Source: Cohort 1 and 2 organizational survey, fielded September–December 2017.

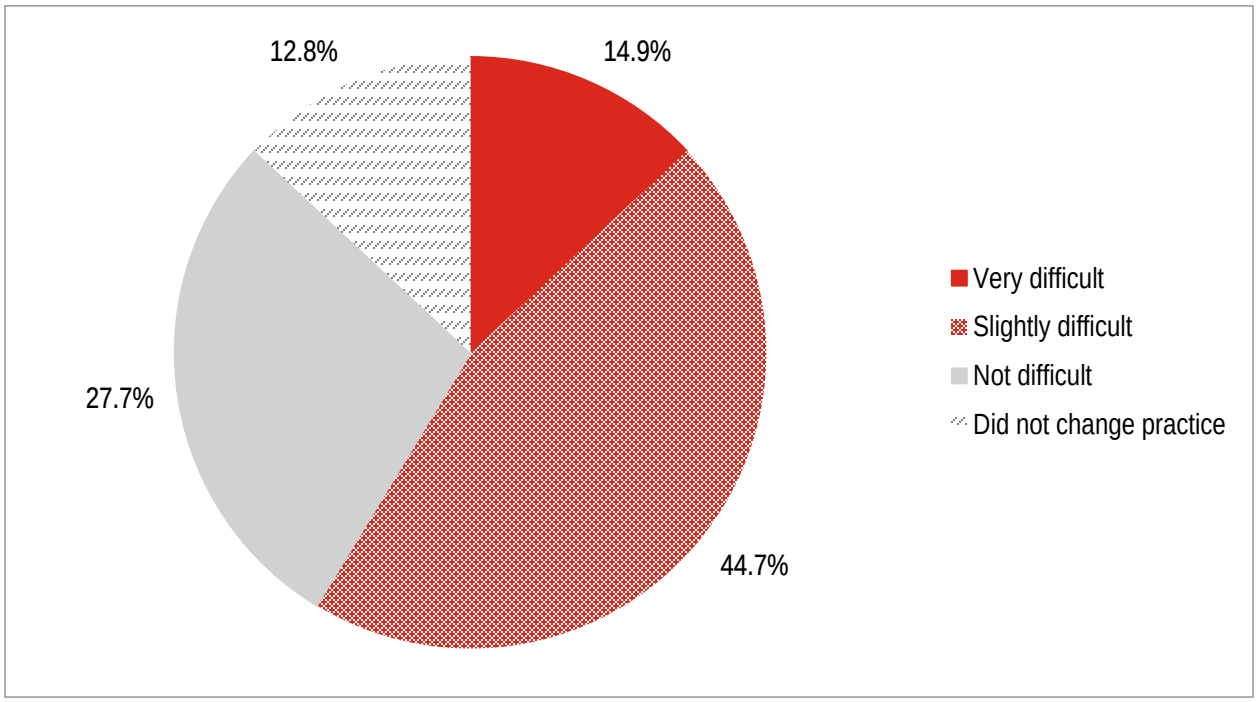
Note: Sample size for this graphic differs from the total number of hospices surveyed because not all respondents answered every question on the survey.

Changes in Referral Processes to Implement MCCM

It is especially important for hospices to implement a successful MCCM referral process, including receiving referrals from physicians and other providers, and responding to these referrals. Because the eligibility criteria for MCCM differ from those for MHB, palliative care, or any other service the hospice might have previously offered, referral practices needed revision as part of implementing MCCM.

Slightly more than half of cohort 1 hospices reported some difficulty in changing referral practices, as presented in Exhibit 4.2. Thirteen percent indicated they made no changes to their referral practices to accommodate MCCM, which may reflect strong existing relationships with the sources they believed could refer eligible beneficiaries for MCCM.

Exhibit 4.2: Difficulty in Changing Referral Practices for MCCM Cohort 1 Hospices



Source: Cohort 1 organizational survey, fielded September–December 2017. Exhibit reflects responses to this question from 47 of the 49 sampled hospices.

4.1.2 MCCM Staffing Approaches

Most MCCM teams include a nurse, social worker, medical director, chaplain, marketing staff person, and an administrative referral coordinator. The majority of cohort 1 hospices responding to the survey reassigned existing staff for MCCM positions, as presented in Exhibit 4.3. Nearly two-thirds of cohort 1 hospices reassigned existing staff for the positions of registered nurse (RN), social worker, and chaplain. Few hospices reported hiring new staff specifically for MCCM, and even fewer both hired new staff and reassigned existing administrative staff. The position most frequently filled with new hiring was RN care coordinator/case manager, with just over 22 percent of cohort 1 hospices hiring staff for that role.

Exhibit 4.3: Cohort 1 Staffing Decisions to Accommodate MCCM

Staff Type	Hospice Hired for This Position	Hospice Reassigned Existing Resources for This Position	Hospice Both Hired and Reassigned Existing Staff for This Position	Hospice Neither Hired nor Reassigned Staff for This Position
Registered nurse (RN)	18.8%	68.8%	0.0%	12.5%
Licensed practical nurse	0.0%	35.4%	0.0%	64.6%
Nurse practitioner	0.0%	29.2%	0.0%	70.8%
RN care coordinator/case manager	22.9%	54.2%	0.0%	22.9%
Nursing aide	2.1%	54.2%	2.1%	41.7%
Social worker	12.5%	66.7%	6.3%	14.6%
Physician	2.1%	52.1%	2.1%	43.8%
Chaplain	2.1%	66.7%	6.3%	25.0%
Bereavement counselor	0.0%	56.3%	2.1%	41.7%
Administrative staff	4.2%	54.2%	12.5%	29.2%
Marketing staff	2.1%	58.3%	4.2%	35.4%

Source: Cohort 1 organizational survey, fielded September–December 2017. The exhibit is based on responses from 48 of 49 cohort 1 hospices.

Note: Row percentages are shown.

Although several cohort 2 hospices anticipated hiring for certain positions (social worker and/or nurse), seven of the eight cohort 2 hospices we interviewed planned to train existing hospice and palliative care staff for MCCM, rather than hiring new staff.

We describe staffing approaches we observed during MCCM case studies below. These preliminary findings do not represent the staffing approaches of all MCCM hospices, because we visited and/or interviewed only a subset of MCCM hospices.

- **Designated RN and social worker.** One common implementation approach among cohort 1 hospices we visited was to designate an RN and a social worker to serve MCCM enrollees, and for other disciplines (e.g., chaplain, aide, and therapist) from the hospice to fill in as needed, based on the care plans for MCCM enrollees. In this approach, the MCCM RN and social worker were designated to serve MCCM enrollees exclusively. MCCM enrollees, therefore, transitioned to a new care team when they left MCCM and entered MHB, even if they stayed with the same hospice. Three of the 10 cohort 1 hospices we visited used this approach, but only one of the eight cohort 2 hospices we interviewed planned to use this approach.
- **Cross-training all hospice staff to serve MCCM enrollees**. Hospices following this approach used their existing interdisciplinary hospice teams (e.g., nurse, social worker, aide, chaplain) to serve both MCCM enrollees and MHB enrollees. The hospice typically organized these teams geographically according to the hospice's service area and the enrollee's residence. One benefit of this approach is that MCCM enrollees continue to receive care from the same team when they transition from MCCM to MHB. Two of the 10 cohort 1 hospices we visited used this approach, while four of the eight cohort 2 hospices we interviewed planned to use this approach. This difference may be due in part to the limited information about the cohort 1 experiences that had been shared with cohort 2 hospices at the time we interviewed cohort 2 hospices. It is also possible that larger hospices are better able to

designate staff to MCCM, while smaller hospices need to cross-train all hospice staff rather than hiring new staff.

- **Using the palliative care team for MCCM enrollees.** Two of the 10 cohort 1 hospices we visited used their existing palliative care teams to serve MCCM enrollees. These palliative care teams frequently included a nurse practitioner partnered with an RN care coordinator. The benefit of this approach was that the nurse practitioner could bill Medicare Part B for their visits, and could also order medications for symptom management. This made the job of the RN care coordinator easier, since they did not have to coordinate with an external community provider for visits and medication orders whenever an MCCM enrollee needed pain medication. The hospices using this approach accessed other disciplines (e.g., social work, aide, chaplain) from the hospice when needed. None of the eight cohort 2 hospices we interviewed planned to use this approach for MCCM.
- **Having a single, designated RN care coordinator**. Three of the 10 cohort 1 hospices we visited designated a single, full-time RN care coordinator to implement MCCM. In these hospices, the designated RN care coordinator was the face of MCCM to enrollees and the most involved in their care. The care coordinator accessed other disciplines from the hospice when needed. Three of the eight cohort 2 hospices we interviewed also planned to use this approach.

All hospices we visited/interviewed reported that their hospice medical director also serves as the medical director for MCCM, signing CTIs and reviewing clinical information to confirm eligibility. Similarly, all use their hospice on-call staff to provide after-hours support to MCCM enrollees. Additional information about how cohort 1 hospices provide 24/7 access to hospice staff is provided below.

Staff Assignments and Responsibilities

The volume of MCCM enrollees and the capacity of the hospice governed decisions to designate hospice staff as either full-time or part-time with MCCM.

Of the 10 cohort 1 hospices we visited, half told us about turnover in their designated MCCM staff from the inception of the model to the time of our case study. Most of the turnover was unrelated to MCCM, but staff in a few instances reported difficulty making the transition from caring for traditional hospice beneficiaries to working with those who are still receiving life-prolonging treatment, which may have led them to seek out other work assignments.

Cohort 1 hospices we visited described the following responsibilities they assigned to staff for MCCM:

- ***Social workers*** were assigned the most flexible and diverse MCCM roles. Some provided psychosocial supports, while others coordinated care, or focused on transitioning enrollees from MCCM to MHB when they were ready.
- ***Medical directors*** also had varying levels of MCCM involvement, including signing CTIs, attending interdisciplinary group meetings, and working with MCCM care teams to assess enrollee needs. Two cohort 1 hospices we visited noted that their medical directors were involved only at a cursory level and provided limited services to MCCM enrollees, while a third used its medical director in a marketing role to present the model to physicians in the community.
- ***Nurse aides.*** Of the 10 cohort 1 hospices we visited, five assigned nurse aides to MCCM enrollees, although many enrollees chose not to use these aide services.

- ***Administrative staff.*** Many hospices found it difficult for their clinical staff to cover the MCCM administrative requirements, noting the time required to document and communicate care plans with community providers. Administrative staff helped with these MCCM-specific tasks. One hospice used billing staff to provide administrative support for the project leader by entering enrollee demographic information and service details in the MCCM portal.[59] Another hospice asked billing staff to take notes on CMS conference calls. Using administrative staff to help in these ways enabled hospices' MCCM care teams to focus primarily on clinical care.
- ***Leadership.*** Many hospices told us that their central leadership team guided the MCCM staff. Of the 10 cohort 1 hospices we visited, six relied on a point person on their leadership team as the MCCM "champion." Two others relied on a small executive leadership group. Hospice staff seemed to prefer having one central leader as opposed to a group of leaders. In hospices that divided responsibilities for oversight of MCCM, we noticed some confusion among staff about who was responsible for what.

Staffing for 24/7 Access

All 10 cohort 1 hospices we visited provide 24/7 telephonic services to MCCM enrollees. Five trained their on-call nurses to use a protocol to identify MCCM enrollees, look up records in the EHR, and advise enrollees on steps to take for their clinical concern. If the issue was not resolved during this call, the hospice would send an on-call nurse or clinician for an emergency home visit, to either resolve the issue or recommend the MCCM enrollee visit the ED.

The other five cohort 1 hospices we visited offer 24/7 telephonic services but no home visits after hours. Instead, they offer to help coordinate with the enrollee's community provider, or recommend that the enrollee seek help at an urgent care center or ED. One of these hospices asks the physician who signs the CTI to write standing orders for some medications, so that beneficiaries can receive prescription changes after hours without seeing a provider in person.

4.1.3 MCCM Staff Training

Targeted MCCM training was necessary at varying levels depending on the assigned responsibilities of the staff. Staff often needed help differentiating between MCCM, MHB, and palliative care (where offered), and many hospices held MCCM-specific training on the distinctions across these service lines. All MCCM hospices visited held an initial training meeting for a group of staff they identified as the core MCCM team. In addition to the initial training, hospices used other modes of training with their staff, including:

- Creating an easily accessible guide or quick-tips reference that outlines the differences between MCCM, MHB, and palliative care (where offered)
- Holding presentations, having group phone calls, and creating literature such as pamphlets explaining MCCM

[59] See Section 1.3.1 for more information about the MCCM portal.

- Using the resources posted on the MCCM portal and participating in CMS-facilitated webinars to review shared best practices and challenges, and then integrating those findings into training sessions for staff
- Conducting role playing where staff could try out caring for MCCM enrollees and get comfortable with this new role

Initial training. Each of the 10 cohort 1 hospices we visited held a central training meeting, and often separate meetings for MCCM care teams and ancillary staff with training specific to each role. Many hospices trained their ancillary staff (e.g., volunteers, chaplains, therapists) as needed, when enrollees requested or required ancillary services. Hospices also trained their on-call staff to understand the different approaches to providing 24/7 access to MCCM enrollees versus MHB enrollees. For example, hospices typically do not suggest that MHB enrollees use the ED, but may refer MCCM enrollees to the ED for symptom management at night or on weekends.

Sample Cohort 1 Hospice MCCM Training Agenda

- A detailed description of MCCM, including a summary of eligibility criteria
- A comparison of traditional hospice to MCCM
- An overview of the services MCCM covers
- The referral/intake and enrollment processes
- Summary of the requirements for how frequently the different team members must visit each patient

Ongoing training. In addition to the initial training, many hospices used ongoing training to address staff turnover and reinforce MCCM-relevant topics. One hospice created an orientation video to explain MCCM to new staff, and did not repeat the full training program. Some hospices used their interdisciplinary team meetings for ongoing discussion about MCCM enrollees and to review training materials. Others integrated MCCM into regular operations meetings to keep awareness high. Most hospices had both official and unofficial opportunities for questions and answers to ensure uniform understanding of MCCM among all staff. During case study interviews, some staff at two hospices indicated that they had not received formal MCCM training other than a brief overview of the program. Instead, the skills they used for MCCM came from training they received to treat MHB enrollees or from their hospice's existing palliative care program, with no training specifically about MCCM.

Sources of training. MCCM training and materials can come from a variety of sources including the hospice itself, CMS and its MCCM implementation contractor, and other sources such as hospice associations. The MCCM implementation contractor offered webinars to cohort 1 hospices, starting shortly before implementation and periodically as needed thereafter. For more information on the learning and diffusion activities offered by CMS and its MCCM implementation contractor, see Appendix G. At the time of this report, staff from cohort 1 hospices had on average attended 14 of the 19 webinars offered to them, and cohort 2 hospice staff had attended an average of four out of seven webinars offered to them.[60]

[60] September 2017 Monthly Engagement Report from the MCCM implementation contractor. This report tracks monthly MCCM referral and enrollment figures by hospice, as well as their participation in webinars, submission of quarterly reports, and other model engagement information.

The training sources hospices used for various topics are presented in Exhibit 4.4. Nearly two-thirds of cohort 1 hospices trained their staff on the following topics: MCCM eligibility, MCCM marketing and outreach, coordination of palliative care and life-prolonging treatment, delivery of clinical services in the home, quality assurance, and performance improvement. For each of the training topics except using the MCCM portal, the hospice—rather than CMS or its implementation contractor—provided the majority of the training. Some hospices indicated that multiple sources provided training on the same topic. The hospice leaders we interviewed reported that the leadership team members typically attend the trainings CMS or its implementation contractor provide, and then tailor the material as needed to train their other staff. When a hospice decided not to include a topic in the training, it was because the leadership viewed the material as unnecessary or not relevant, based on their chosen MCCM implementation approach or the existing skills of their staff.

Exhibit 4.4: Source of Cohort 1 Training for Implementation of MCCM

	Training Provided by the Hospice	Training Provided by CMS or Implementation Contractor	Training Provided by Another Source	Training Not Provided
MCCM eligibility	81.3%	37.5%	2.1%	0.0%
MCCM marketing and outreach	81.3%	39.6%	2.1%	4.2%
MCCM enrollment strategies	70.8%	41.7%	2.1%	6.3%
MCCM billing processes	62.5%	50.0%	2.1%	8.3%
Using the MCCM portal	54.2%	64.6%	0.0%	8.3%
Coordination of palliative care and life-prolonging treatment	75.0%	29.2%	2.1%	12.5%
Delivery of clinical services in the home	77.1%	20.8%	0.0%	10.4%
Quality assurance and performance improvement	72.9%	27.1%	0.0%	12.5%

Source: Cohort 1 organizational survey, fielded September–December 2017.

Note: Categories in the columns are not mutually exclusive—hospices could indicate multiple sources of training for a topic. Table is based on 48 cohort 1 hospices responding to the survey. Percentages are cell percentages and report percent of hospices indicating they had a particular type of training for a particular topic.

Cohort 2 hospices anticipate providing training on similar topics to those of cohort 1, as shown in Exhibit 4.5. However, the percentage of cohort 2 hospices planning to provide training was higher than the percentage of cohort 1 hospices that actually had training for each topic. This may be due to cohort 2 hospices recognizing the need for more staff training, based on what they learned from cohort 1 leaders and CMS during pre-implementation training; or, it may reflect some uncertainty about their MCCM implementation plans at the time of survey administration. The majority of cohort 2 hospices anticipate providing training themselves on the MCCM portal rather than relying on CMS or its implementation contractor. This finding may be indicative of the cohort 2 hospices not yet understanding the full spectrum of offerings that CMS will provide.

Exhibit 4.5: Anticipated Source of Cohort 2 Training for Implementation of MCCM

	Training Provided by the Hospice	Training Provided by CMS or Implementation Contractor	Training Provided by Another Source	Training Not Provided
MCCM eligibility	91.3%	17.4%	0.0%	0.0%
MCCM marketing and outreach	87.0%	26.1%	0.0%	2.2%
MCCM enrollment strategies	84.8%	26.1%	0.0%	2.2%
MCCM billing processes	60.9%	50.0%	0.0%	4.3%
Using the MCCM portal	65.2%	52.2%	2.2%	2.2%
Coordination of palliative care and life-prolonging treatment	87.0%	15.2%	8.7%	4.3%
Delivery of clinical services in the home	87.0%	13.0%	6.5%	6.5%
Quality assurance and performance improvement	84.8%	34.8%	4.3%	4.3%

Source: Cohort 2 organizational survey, fielded October–December 2017.

Note: Categories in the columns are not mutually exclusive—hospices could indicate multiple sources of training for a topic. Table is based on 45 cohort 2 hospices responding to the survey. Percentages report percent of hospices indicating they anticipated having particular type of training for a particular topic.

4.1.4 Use of Technology to Deliver MCCM Services

Participating hospices can use in-person visits, telephone calls, and other technology such as telehealth to deliver services to MCCM enrollees. Hospices may also use technology to share information with other providers. The MCCM portal for submitting beneficiary demographic and service information is new technology for most hospices. We explored all these uses of technology to understand how they contribute to MCCM implementation.

Very few of the MCCM hospices rely solely on paper medical records, as shown in Exhibit 4.6. Most hospices in both cohorts use fully electronic health records (73.5 and 66.7 percent, respectively), and roughly a quarter of participating hospices use both paper and electronic records.

MCCM requires participating hospices to coordinate all of the care enrollees receive, and hospices with experience sharing information with external providers may be better able to meet this requirement. We found that 76.1 percent of cohort 1 hospices communicate with external providers who see MCCM enrollees, and 68.2 percent of cohort 2 hospices anticipate communicating with such external providers, as presented in Exhibit 4.6. Further (not shown in Exhibit 4.6), the majority (83 out of 94) of responding hospices have some access to their enrollees' records in the EHRs of local hospitals. Many also have at least some access to the EHRs of local palliative care programs, nursing facilities, home health agencies, and physician practices. Access to the EHRs of other providers, and sharing information with them electronically, can support coordinated transitions between care settings, as well as referrals. We will continue to monitor EHR access and information sharing as an important component of MCCM implementation.

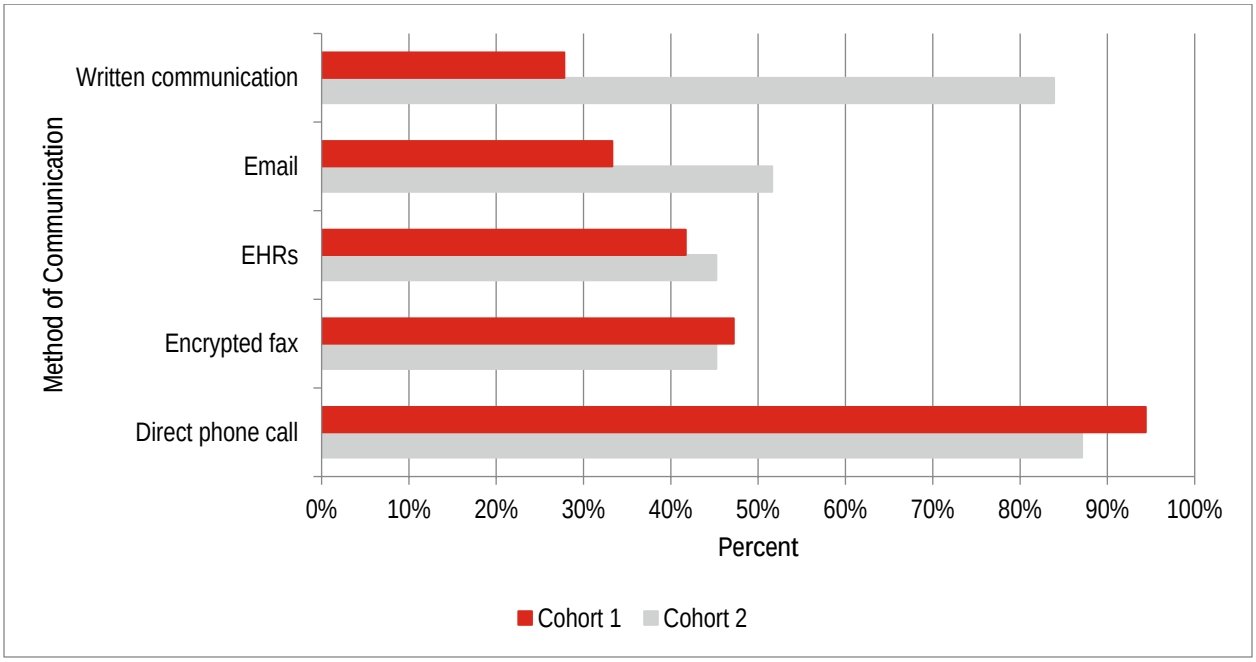
Exhibit 4.6: Information Sharing between MCCM Hospices and External Providers

	Cohort 1	Cohort 2
Provide and receive information from external providers who see MCCM enrollees	76.1%	68.2%
Use only electronic health records	73.5%	68.2%
Use only paper health records	2.0%	4.5%
Both electronic and paper health records	24.5%	27.3%

Source: Cohort 1 and 2 organizational survey, fielded September–December 2017. Table is based on responses from 49 cohort 1 hospices and 45 cohort 2 hospices responding to the survey. Percentages are column percentages by item and cohort.

Although most MCCM hospices use an EHR and have access to the EHR systems of some other providers in their community, only 41.7 percent of care coordination and communication between cohort 1 MCCM hospices and community providers is done via sharing of electronic health record information, as shown in Exhibit 4.7. Most care coordination is conducted via direct phone call (94.4 percent in cohort 1), and 47.2 percent of care coordination communication is done via encrypted fax.

Exhibit 4.7: Communication Methods between MCCM Hospices and External Providers



Source: Cohort 1 and 2 organizational survey, fielded September–December 2017.

Note: Exhibit is based on responses from 36 of the 49 cohort 1 hospices, and 31 of the 45 cohort 2 hospices responding to the survey and answering this question. Hospices could indicate multiple methods of communication. EHRs = Electronic health records.

None of the 10 cohort 1 hospices we visited reported investing in new technologies such as telehealth, or new EHR systems, to implement MCCM. Likewise, none of the cohort 2 case study hospices planned to upgrade their EHRs or invest in new technologies to implement MCCM in their hospices for the January 2018 launch.

None of the 10 cohort 1 hospices we visited had the ability to extract and upload information automatically from their EHRs directly to the MCCM portal at the time of our visit.[61] One hospice's EHR vendor initially promised to build this functionality, but reversed this decision because its clients MCCM volume was too low to justify this effort. None of the hospices ask clinical staff to record the services they provide directly in both the EHR and the MCCM portal. One hospice tried this, but found the duplicate data entry was too time-consuming for clinical staff. Instead, the hospices told us that their clinical staff document in the EHR as usual for MCCM enrollees, and a data manager or administrative support person enters the required information into the MCCM portal for each enrollee. All the hospices we visited centralize portal data entry in this manner, to reduce burden on clinical staff and limit the number of people they must train to use the portal.

Many hospices created a new form in their EHR that mirrors the fields in the MCCM portal. Four of 10 cohort 1 hospices we visited worked with either their EHR vendor or their information technology department to build these forms. These forms expedite portal data entry by eliminating the need to search free text notes for requisite information. Hospices incurred upfront investment to build these forms into their EHRs, but none cited this investment as a significant burden.

4.1.5 Costs of Participating in MCCM

Hospices' costs associated with implementing MCCM primarily included staff time and upfront investments in technology, such as developing the MCCM portal forms in their EHRs as described above, or adding new EHR user licenses for administrative staff. This section of the report addresses the following research question:

- *What costs do hospices incur in providing services?*

Staff Costs

Very few hospices hired new staff members to assist with implementation, as shown in Exhibit 4.3. Most cohort 1 hospices responding to the organizational survey reallocated their current staff and added responsibilities to assist with MCCM, rather than hire new staff. However, it is unclear whether any had to hire new staff to fill any of these positions to continue serving their hospice populations when existing staff moved into new roles for MCCM.

Only a few hospices are explicitly tracking staff time spent on MCCM, to understand how their actual costs of implementing MCCM compare with the MCCM reimbursement. Of those hospices that keep track of staff time spent serving MCCM enrollees, one tracks staff travel time to reach MCCM enrollees, and time spent on the phone with MCCM enrollees and caregivers. Another tracks mileage and the proportion of time staff spent providing care to enrollees and on administrative MCCM duties. Hospices that were not tracking staff members' hours expressed concern that they have no clear understanding of the level of effort for MCCM, especially among staff with only peripheral MCCM administrative duties (e.g., medical director, hospice director).

[61] In January 2018, CMS enhanced the MCCM portal to accept automated uploads from hospices.

MCCM Cost Concerns

Eight of the 10 cohort 1 hospices we visited told us that they expect to lose money on MCCM because the cost of participating in the model, and delivering services to enrollees, exceeds the reimbursement. They explained that MCCM enrollees require more in-person visits than the hospices initially anticipated, and encounters by phone cannot avert many of these in-person visits. In addition, most hospices had lower enrollment than anticipated, and the resulting lower total MCCM revenue was inadequate to support administrative requirements (e.g., building electronic forms, portal submission). A few hospices told us that insufficient funding that did not cover administrative costs eventually caused them to restrict MCCM enrollment, despite receiving eligible referrals. Although some cohort 2 hospices raised the same concerns during interviews, others suggested that $400 PBPM is similar to their current reimbursements for similar services in their palliative care programs.

4.1.6 Implementation Challenges

MCCM hospices we interviewed and surveyed raised other implementation challenges not discussed elsewhere in this report, including:

- **DME.** MCCM does not cover DME as MHB does (see Exhibit 1.1), and beneficiaries obtain DME the same way they would if not enrolled in MCCM (i.e., through Medicare Part B). Hospice staff told us that coordinating DME and helping MCCM enrollees obtain DME are new tasks for them, and more complex than obtaining DME for beneficiaries in MHB. In at least one non-profit hospice, staff borrowed equipment from their own hospice program, to fill gaps while finalizing paperwork for MCCM enrollees to obtain DME. Since most of their MCCM enrollees eventually transition to hospice, this hospice assumes that they will eventually recoup some of the costs of borrowed equipment once enrollees transition to MHB.
- **Medications.** Prescription drugs are generally covered under MHB (see Exhibit 1.1), and MCCM enrollees go through their usual channels to fill prescriptions using Medicare Part D, Medicaid, or other coverage. In two cohort 1 hospices, staff told us that physicians in the community hesitate to prescribe narcotics and/or opioids, even for beneficiaries with limited life expectancy, due to concerns about addiction and overdoses. In both of these hospices, the hospice medical directors or palliative care physicians work with the MCCM enrollee's other physicians to address such concerns.
- **Referrals from community physicians.** Several cohort 1 hospices told us that the complex eligibility requirements of MCCM (prior to CMS's changes) were difficult to explain to community referral sources. In addition, physicians who did not fully understand MCCM were reluctant to sign CTIs for beneficiaries not electing MHB. In 2017, CMS created a physician brochure that addresses the latter issue, for MCCM hospices to distribute to their referral sources as needed. Hospices reported that the brochure is useful in their outreach efforts, but not always sufficient to prompt referrals from physicians in the community.
- **Unpaid claims/reimbursements.** Several hospices mentioned that they did not receive their MCCM payments in what they perceived to be a timely manner, especially when beneficiaries transitioned from MCCM to MHB. In October 2017, CMS updated the system used by the MACs to administer

MCCM payments.[62] If there are ongoing issues, CMS works closely with hospices and the MACs, which the MCCM hospices appreciate.

4.2 Marketing Efforts to Generate MCCM Referrals

For many participating hospices, MCCM represents a new service line, different from anything they have previously offered and unlike services otherwise available in their communities. They therefore need to market MCCM to potential referral sources, and educate them about the services MCCM offers, and how the model differs from MHB. How MCCM hospices go about marketing the model to their referral sources may be related to the volume of referrals they receive and how many of the referred beneficiaries are eligible and ultimately enroll. In future reports, we will link responses on the organizational survey to questions regarding marketing efforts to each hospice's MCCM enrollment and referral volume to better understand if certain marketing efforts are more effective than others in generating MCCM referrals.

Participating hospices need to first identify referral sources to target for this marketing. Some potential referral sources may have preexisting relationships with the hospice, and others may be entirely new for MCCM. The hospice must then decide how and when to approach referral sources to explain MCCM, the materials that will be most compelling for each potential referral source, and which messages will resonate most strongly with each. The goal of marketing is to make it easy for referral sources to remember MCCM as they discuss care options with patients, and accomplish a timely referral.

4.2.1 Target Audiences for Marketing Efforts

Hospices in both cohorts focused, or will be focusing, their marketing efforts on certain provider types, primarily physicians, nursing staff, social workers, discharge planners, and palliative care teams, as shown in Exhibit E.22, in Appendix E (Section E.4.2). Cohort 1 hospices focused their marketing efforts on the provider types that were working in multiple care settings, especially hospitals and physician practices.

Many hospices in cohort 1 focused their marketing efforts on social workers and discharge planners, because these staff often have an important role in coordinating transitions for beneficiaries nearing the end of life. Only about one-third of cohort 1 hospices reported focusing marketing efforts directly on beneficiaries and caregivers in the hospital and physician office settings. During case studies, hospice staff told us that marketing directly to potential beneficiaries and caregivers is difficult due to the complex MCCM eligibility criteria. They find it works best to educate clinicians and other members of the care team, who can help identify beneficiaries who are likely to meet the eligibility criteria.

Among cohort 2 hospices, the trends were similar to cohort 1 hospices, but the share of cohort 2 hospices reporting that they would market to each provider type was higher across all settings of care. For example, 82.3 percent of cohort 2 hospices planned marketing efforts for physicians in hospitals, compared with 61.3 percent of cohort 1 hospices doing this marketing. For nursing staff in hospitals, 73.3 percent of cohort 2 hospices reported planned marketing efforts for this audience/care setting, compared with 55.1 percent of hospices in cohort 1.

[62] Change Request (CR) 10094 to the CMS Manual System updated the business requirements used to process claims for MCCM monthly payments for the same month that a beneficiary elects the MHB.

In most settings of care, cohort 2 hospices reported significantly higher levels of planned marketing efforts directed at discharge planners than were reported by cohort 1 hospices. One potential consequence of a concerted focus on marketing to discharge planners, which we observed during case studies, is that the community providers may be less engaged and knowledgeable about MCCM. It is important that physicians in the community fully understand MCCM, as they will be required to sign CTIs, and they may be listed in the MCCM portal as the referring physician.

The difference in the actual experience of cohort 1 versus the plans of cohort 2 may reflect cohort 2 hospices not yet knowing which messages about MCCM will resonate best with various audiences to generate MCCM referrals, and therefore planning a broad approach to marketing. During case studies with cohort 1 hospices, staff reported that they were continuously improving their marketing approach based on experience. We anticipate that cohort 2 will do similar refining of their marketing plans after gaining some experience in MCCM, and we will measure this during the next round of the organizational survey and case studies.

4.2.2 Timing of Marketing Efforts

All 10 cohort 1 hospices we visited reported some marketing efforts before the official program start date. On our organizational survey, however, only 44.7 percent of responding cohort 1 hospices reported initiating marketing efforts for MCCM before the start date for their cohort, and of the remainder, most indicated they started marketing within three months after their program start. It is unclear why so many cohort 1 hospices waited to start marketing MCCM, but this delay suggests a need for more guidance, beyond the training CMS offered during the six-month ramp up period in 2015.[63] In cohort 2, 81.8 percent of survey respondents indicated they will begin marketing before their cohort start date, as shown in Exhibit 4.8. This difference may reflect lessons learned from the first phase of MCCM implementation, communicated to cohort 2 during their pre-implementation ramp up period in 2017.

Exhibit 4.8: Timing of Initiation of MCCM Marketing Efforts

Item	Cohort 1 (N = 47)	Cohort 2 (N = 44)
Prior to start of cohort	44.7%	81.8%
1–3 months after cohort start	44.7%	18.2%
>3 months after cohort start	8.5%	0.0%
Other	2.1%	0.0%

Source: Cohort 1 and 2 organizational survey, fielded September–December 2017.

Note: Table is based on responses from 47 of 49 cohort 1 hospices and 44 of 45 cohort 2 hospices responding to the survey and answering this question. Percentages are column percentages.

4.2.3 Messages Included in Marketing Efforts

Cohort 1 hospices used a variety of messages to market MCCM to potential enrollees and/or caregivers, as presented in Exhibit 4.9. The most frequent messaging described MCCM as helping with disease and symptom management. Another common marketing message was that MCCM offers additional beneficiary and caregiver support, and coordination with other medical professionals. Interestingly, only a

[63] For a complete list of learning activities offered by CMS and its implementation contractor, please see Appendix G.

little more than half of cohort 1 hospices (58.3 percent) indicated that a key marketing message was the option under MCCM to continue treatments that may extend life (as compared with the requirement to waive curative treatment under MHB), while nearly three quarters of cohort 2 hospices anticipate using that message to market their programs (73.9 percent). These differences in messaging may reflect the experiences cohort 1 hospices have gained about effective marketing—lessons that cohort 2 hospices have yet to learn.

Exhibit 4.9: Key Messages and Program Features Used in Marketing MCCM to Potential Enrollees and Referral Sources

Feature	Cohort 1 (N= 49)	Cohort 2 (N= 45)
Help with disease and symptom management	97.9%	95.7%
Support when making complex medical decisions	81.3%	93.5%
Additional beneficiary and caregiver support	91.7%	91.3%
Coordination of care with other medical professionals	87.5%	84.8%
24/7 access to hospice staff	81.3%	87.0%
Extra symptom support	79.2%	84.8%
Continued focus on treatments that may extend life	58.3%	73.9%

Source: Cohort 1 and 2 organizational survey, fielded September–December 2017.

Note: Table is based on 49 hospices in cohort 1 and 45 hospices in cohort 2 responding to a survey. All hospices answered each question addressed in the above exhibit. Hospices could also indicate multiple responses to this question. Percentages are cell percentages and represent the percent of hospices in a cohort that used a particular key message to market MCCM.

4.2.4 Operationalizing Marketing Efforts

The cohort 1 hospices we visited described two general marketing approaches. In five of the 10, their marketing staff incorporated MCCM into their other outreach efforts to referral sources. The other five hospices target their MCCM-specific outreach to the potential referral sources that are most likely to refer beneficiaries for MCCM. In these hospices, the MCCM staff, rather than the hospice's marketing or sales staff, typically do the outreach to potential referral sources. We also learned that when the hospice staff involved in the referral process had an existing relationship with a referral source, the hospice was able to build its MCCM enrollment faster. For example, one MCCM social worker had previously worked for a nearby oncology practice, and her former colleagues were comfortable referring their patients to her.

4.2.5 Marketing Challenges

During interviews with cohort 1 hospices, staff told us that it can be difficult to explain their different service lines to referral sources. This was especially true for hospices that offer both MCCM and home-based palliative care. One way hospice staff have addressed this issue is by creating a handout that outlines the different service lines, the eligibility criteria for each, and other considerations that may be pertinent for referral sources. Staff from several hospices also encountered discouragement among referral sources that made several referrals that did not meet all the MCCM eligibility criteria. The hospices that use a centralized approach to managing referrals did not seem to experience as much discouragement, because they are usually able to match a beneficiary to another service line, if not to MCCM (e.g., MHB, palliative care).

4.3 Referral to MCCM Hospices

The success of MCCM depends on community providers referring their patients to hospices participating in the model. Some providers may be more likely than others to identify and refer potential MCCM beneficiaries. Additionally, early experiences with MCCM may shape providers' willingness to continue referring to the model. We interviewed several referring providers as part of our case studies, and present their perceptions of the model in Section 5.2.

The following analysis examines the referral process for MCCM, and addresses the following research question:

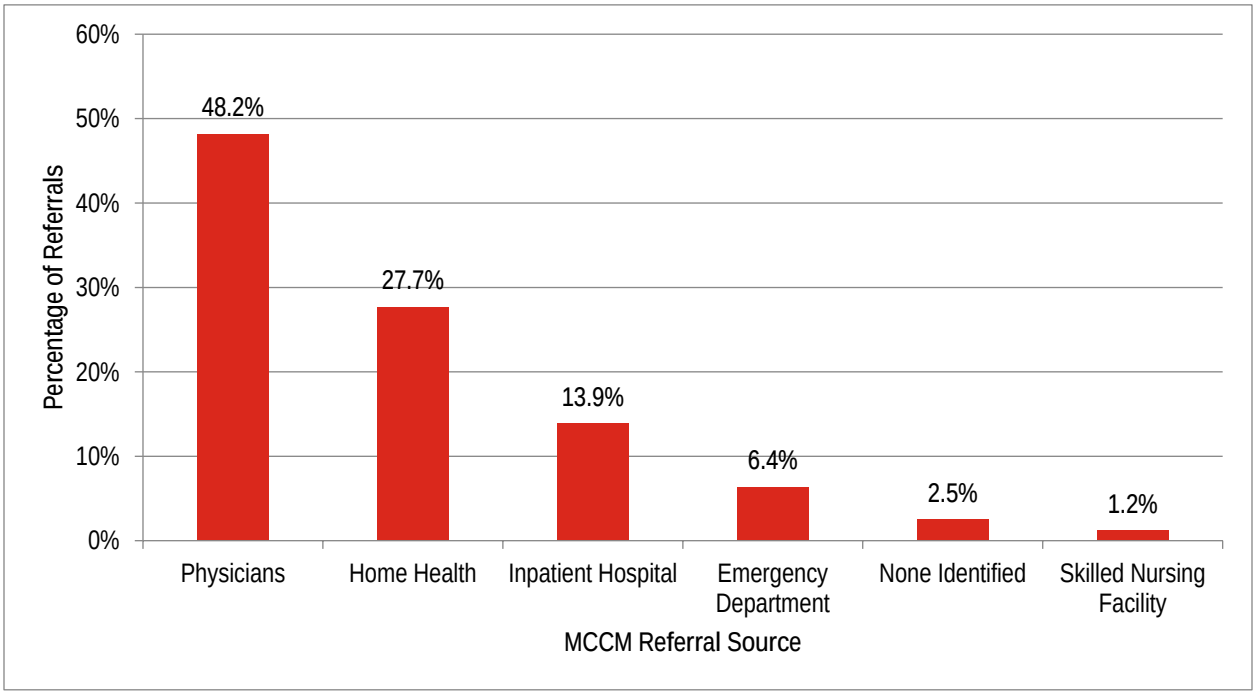
- *What referral patterns are observed?*

4.3.1 MCCM Referral Patterns

Referral patterns are important to the MCCM evaluation for several reasons. First, understanding these referral patterns may inform the selection of a matched comparison group of non-MCCM beneficiaries against which to compare the MCCM group. Second, whether an individual is referred to MCCM during the course of outpatient treatment for the person's terminal condition, or following a more acute event such as a hospitalization or ED visit, may be related to their length of enrollment in MCCM and eventual transition to MHB. We will explore both issues in future evaluation reports.

We explored MCCM referral patterns in two ways. First we attributed a referral source to an MCCM enrollee by looking at healthcare services received prior to enrolling in MCCM. Using this approach, almost half of MCCM enrollees (48.2 percent) who died before June 30, 2017 were referred to MCCM by physicians, about one quarter (27.7 percent) were referred by home health agencies, and nearly 14 percent were referred by acute care hospitals; the remaining 7.6 percent were referred by EDs or SNFs. We could not identify the referral source for 15 beneficiaries (2.5 percent), as shown in Exhibit 4.10. More information about this analysis can be found in Appendix A, Section A.5.10. The finding that many MCCM enrollees had been referred by physicians suggests that other types of providers had less information about MCCM, or that MCCM hospices were marketing their programs more effectively and successfully to physicians than to others.

Exhibit 4.10: Referral Source of MCCM Enrollees



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017.

In addition to the attributed site of referral shown in Exhibit 4.10, we also examined the referring physician that was listed in the MCCM portal for each MCCM enrollee that died prior to June 30, 2017.[64] Information on referring physicians is not available in the MCCM portal for referrals that do not enroll in MCCM. Therefore, this analysis only focused on MCCM enrollees.

Many physicians referred just one beneficiary who actually enrolled in MCCM, as shown in Exhibit 4.11 (with further details available in Exhibit E.26 in Appendix E, Section E.4.2). Of all the physicians referring MCCM enrollees that died prior to June 30, 2017, 87.2 percent referred just one. These physicians—who each referred one beneficiary—accounted for 72.3 percent of the enrollees included in this analysis. The remaining 27.7 percent of MCCM enrollees were referred by the 12.8 percent of physicians who each referred more than one MCCM enrollee. This suggests that MCCM enrollment was driven by a wide number of physicians, rather than a small number of providers referring many MCCM enrollees.

We interviewed referring providers, and learned that they were more likely to increase the volume of referrals after having one patient successfully enrolled in the model and who had had a good experience in MCCM. In future years of the evaluation, we might expect the volume of referrals to increase as providers gain more experience with the model.

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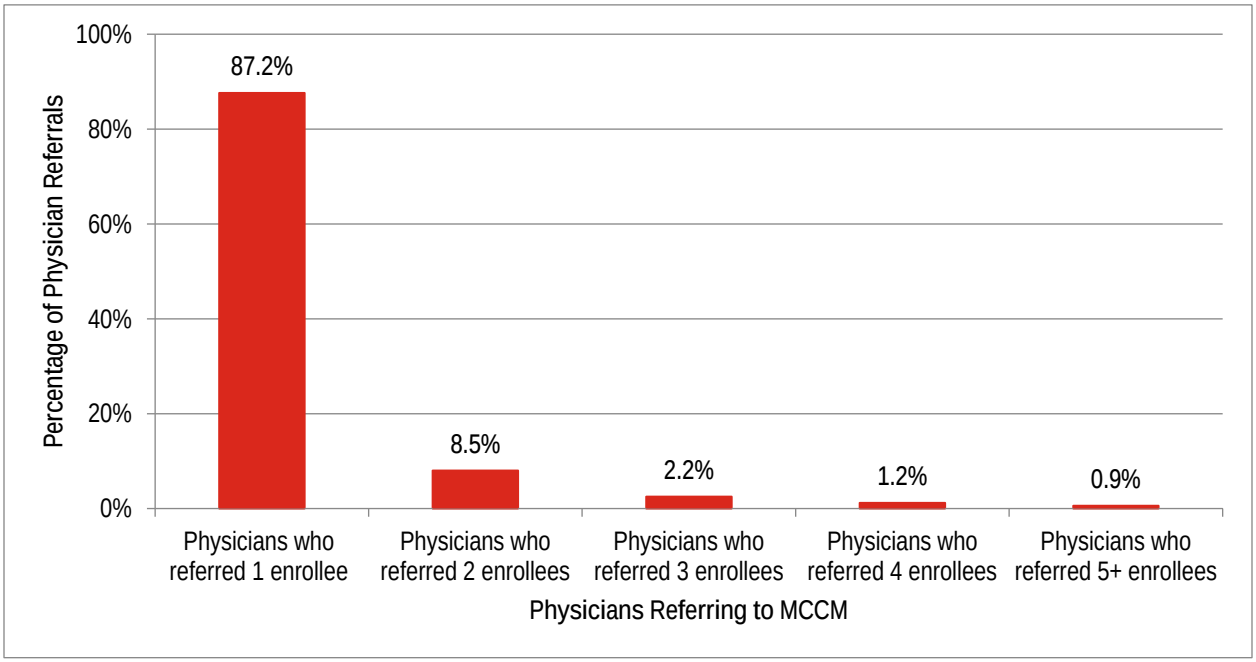
64 Exhibits showing results for all MCCM enrollees (regardless of death) are presented in Appendix E. Results are largely similar to those shown in Section 4.3.1. MCCM enrollees that died prior to June 30, 2017 are shown in Section 4.3.1 to maintain consistency with other parts of the report.

Exhibit 4.11: Patterns of Physician Referrals to MCCM



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017 referred by 493 physicians.

Note: Percentage of physician referrals is defined as the number of physicians referring each number of MCCM enrollees, divided by the total number of physicians who referred any MCCM enrollee.

Of the physicians referring MCCM enrollees who died prior to June 30, 2017, 41.0 percent were oncologists, another 21.0 percent were internists, and 18.5 percent were family medicine physicians, as presented in Exhibit 4.12 (with an analogous table for all ever-enrollees available in Exhibit E.25 in Appendix E, Section E.4.3). Overall, these three specialties accounted for 80.5 percent of the group of MCCM enrollees referred by physicians. Other common specialties of physicians who referred beneficiaries that enrolled in MCCM included cardiology (5.5 percent of referrals), pulmonology (3.4 percent), and palliative care (3.2 percent). The high share of referrals from oncologists is consistent with the preponderance of cancer patients in MCCM.

Exhibit 4.12: Referring Physician Specialty of MCCM Enrollees

Specialty of Referring Physician	Percentage of MCCM Decedents – Cohort 1 (N= 595)
Oncology	41.0%
Internal medicine	21.0%
Family practice medicine	18.5%
Cardiology	5.5%
Pulmonology	3.4%
Palliative care	3.2%
Hematology	1.8%
Other	5.5%

Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis based upon 595 MCCM enrollees who died prior to June 30, 2017 referred by 493 physicians.

Note: The "Other" category includes gastroenterology (.5%), gynecology (.3%), infectious disease (.3%), nephrology (.3%), neurology (.5%), pain management (.8%), radiology (1%), urology (.2%), and other specialist (1.5%).

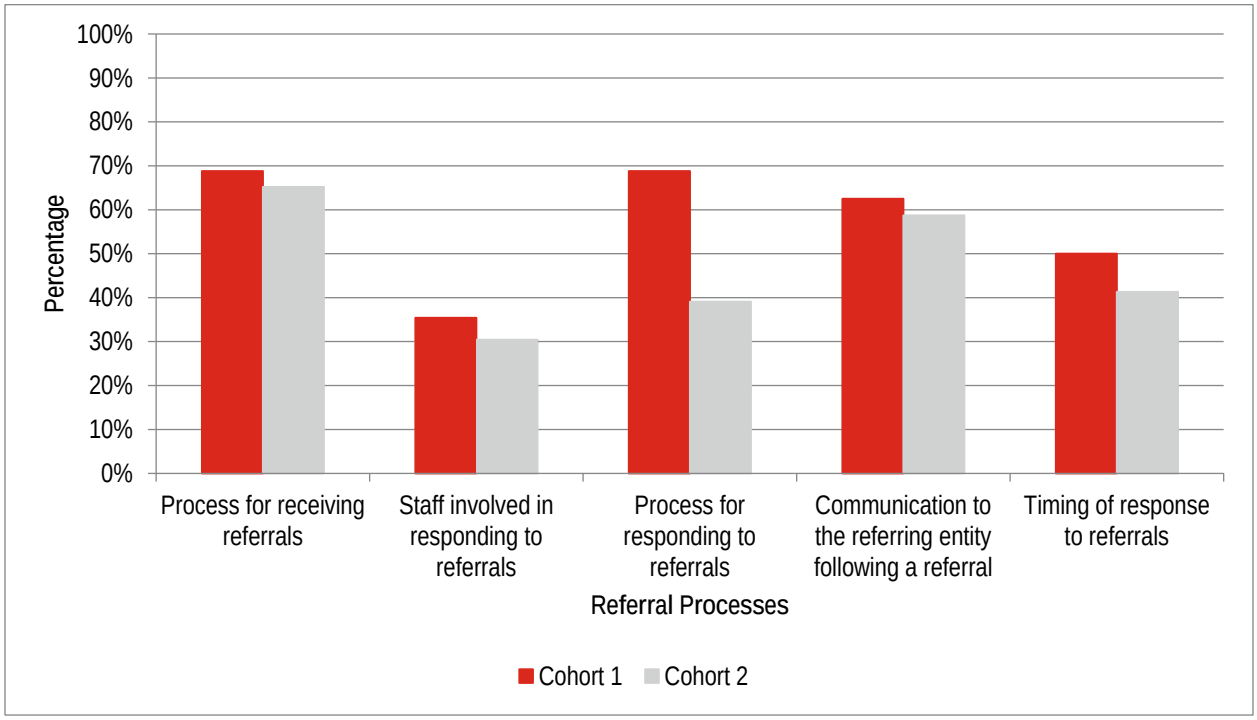
4.3.2 Process for Receiving MCCM Referrals

Successful MCCM implementation requires an effective process for the hospice to receive and respond to referrals, in a timely manner. Because the eligibility criteria for MCCM differs from that of MHB, home health, or other services the hospice may offer (e.g., palliative care), hospices revised their prior processes for receiving referrals.

Hospices primarily made changes to referral processes for MCCM enrollees only, and made no changes for MHB. The majority of cohort 1 hospices changed their process for receiving referrals, the staff involved in processing referrals, and how they respond to MCCM referrals, as presented in Exhibit 4.13. Cohort 2 hospices anticipate making similar changes. Few hospices in either cohort made or anticipate making staff changes, or altering the timeframe for responding to referrals.

Cohort 1 and 2 hospices' referral processes were quite similar, except for the last step of responding to referrals. Almost 70 percent of cohort 1 hospices reported that they changed their process for responding to referrals, compared to just under 40 percent of cohort 2 hospices who anticipate changing the way they respond to referrals to accommodate MCCM. This difference could reflect the greater operational experience of cohort 1 hospices with the model. The next round of the organizational survey will be helpful to clarify whether more than 40 percent of cohort 2 hospices find it necessary to change their process for responding to referrals, after they gain experience with the model.

Exhibit 4.13: MCCM Hospices Reporting Changes Made or Anticipated in Referral Processes



Source: Cohort 1 and 2 organizational surveys, fielded September–December 2017. Exhibit is based on 49 cohort 1 and 45 cohort 2 hospices that responded to the survey.

During case studies, we learned about two general approaches to managing referrals. In six of the 10 cohort 1 hospices we visited, the hospice's centralized intake department receives referrals to MCCM and other service lines (e.g., hospice, palliative care). Hospices who use this approach told us it is most efficient for one team to receive all referrals and identify services that will meet the individual's needs. The four other cohort 1 hospices we visited used separate processes for receiving referrals to MCCM and for receiving referrals to MHB or other service lines.

> *"If they have [end-stage renal disease*] and are getting dialysis, I can't take them as MCCM, but it doesn't mean [we] can't help that patient. We have this philosophy where we try to not say 'no.' If I encounter a patient by phone or in person, I bring it back here to the office. I try to figure out what we can do for them."*
>
> –MCCM project leader, cohort 1
>
> *Note that end-stage renal disease is not one of the eligible MCCM diagnoses

Hospices we visited estimate that it takes four to 10 hours of staff time to complete the MCCM referral and enrollment process, depending on how the hospice divides responsibilities among staff. Hospices also reported that it takes two weeks on average from the receipt of an MCCM referral to the beneficiary's enrollment in the model. During this time, the hospice staff request and receive all relevant medical records, receive signed CTIs, and gather necessary information and signatures from the beneficiary.

4.4 Organizational Features Associated with Effective Implementation of MCCM

We purposefully selected case study hospices that varied in terms of organizational characteristics (e.g., profit status, geographic location, and size), to explore whether certain characteristics are associated with effective MCCM implementation. This section addresses the following research questions:

- *What features of hospices' administration and structure account for the successes or failures of their implementation of MCCM?*
- *How effective were learning system activities in preparing hospices to succeed in MCCM?*

> *"The marketing piece is challenging, you go to the physician's office and we introduce them to [MCCM]…but it's trying to get them to think about it when they're thinking about their patients, to have them put the pieces together, to keep it in the forefront."*
>
> –Hospice staff overseeing marketing

While this report only contains information on these research questions from case studies, future reports will explore these topics using both case studies and the organizational survey responses. During visits with 10 cohort 1 hospices, we identified organizational features that may contribute to MCCM implementation effectiveness or potentially hinder progress. These preliminary, emerging themes include:

***Capitalizing on health system participation**:* Being part of a health system brought some efficiencies, as described by hospices we interviewed. These hospices could typically access a referred beneficiary's records in the health system's EHR, which made confirming MCCM eligibility faster and easier. Additionally, referral sources within the health system were more familiar with, and comfortable with, the MCCM hospice teams, and more likely to refer beneficiaries. One hospice proactively reviewed records for hospitalized patients with the qualifying diagnoses to identify any who might be MCCM-eligible. When they identified potential referrals, the hospice teams approached the attending physicians to discuss MCCM.

***Clear communication channels**:* Clearly defined MCCM teams with established lines of communication was another facilitator of success. Furthermore, having designated team meetings at specified times promoted constant communication about MCCM beneficiaries in both a formal and an informal manner. This efficient communication was especially true of those cohort 1 hospices whose teams had a designated MCCM social worker and MCCM nurse, and informal touch-points occurred often. Another hospice found that assigning MCCM nurses or aides who could follow beneficiaries into traditional hospice helped facilitate that transition. Thus, it appears the more definition around staff roles at any level, the easier it was to create streamlined communication and implement MCCM.

***Using experience from existing palliative care programs**:* Organizations that had other related service lines seemed to be able to implement MCCM more quickly and effectively. Three hospices told us that their own home-based, palliative care programs better prepared them to implement MCCM successfully. One hospice described its palliative care program's special transition coaches, who work directly with caregivers and hospital discharge planners to discuss goals of care and transitions. These conversations can result in referral to MCCM or hospice as the beneficiary's goals of care evolve. Another hospice noted that 80 to 90 percent of its MCCM referrals came from its hospital-based palliative care program. The hospice's palliative care physicians provide care in many different acute-care settings, which created many opportunities to refer to MCCM.

4.4.1 Hospice Participation in Learning and Diffusion Activities

On average, the 10 cohort 1 hospices we visited attended 81.6 percent of the webinars offered by CMS's MCCM implementation contractor, compared to 74.9 percent for all cohort 1 hospices. The cohort 1 case study hospices submitted 95.0 percent of the required quarterly progress reports, compared to 83.3 percent for all cohort 1 hospices, as presented in Exhibit 4.14. The cohort 2 hospices we interviewed attended on average 76.8 percent of the webinars, compared to 67.3 percent for all cohort 2 hospices.[65] These engagement figures for the case study hospices are higher than the averages for MCCM hospices as a group, indicating that those we visited during case studies were an especially engaged subset. This probably reflects our criteria for selecting case study hospices, as we targeted those with higher enrollment, who might have more experiences to share. Hospices with higher enrollment may be more engaged in the model than those experiencing enrollment challenges. It is also possible that participating in learning activities supports effective implementation, which in turn yields higher enrollment, or that those hospices with higher enrollment were more engaged in the model generally and more likely to participate in learning activities.

The hospices we did not visit had lower engagement in learning activities than did those we visited. There was also lower attendance at CMS's in-person training among cohort 2 hospices versus cohort 1. This may be related to planned withdrawals: when we interviewed cohort 2 hospices that withdrew, they explained that they did not attend the in-person training because they expected to withdraw before implementing the model (these hospices are not included in Exhibit 4.14 because they are counted as withdrawn hospices, which are discussed in Section 2.1). We do not report the engagement statistics for withdrawn hospices that left at different points in the model, because timing of their withdrawal would dictate how many learning and diffusion activities they could have attended, making it difficult to calculate an average.

Exhibit 4.14: Hospice Engagement in MCCM Learning and Diffusion Activities

	All Cohort 1 Hospices (N=58)	Case Study Hospices: Cohort 1 (N=10)	Low Enrollment Interview Hospices: Cohort 1 (N=6)	All Cohort 2 Hospices (N=55)	Case Study Hospices: Cohort 2 (N=8)
Average webinars attended	74.9%	81.6%	71.9%	67.3%	76.8%
Quarterly progress reports submitted	83.3%	95.0%	86.1%	N/A	N/A
Attending in-person training	89.6%	100.0%	100.0%	69.1%	75.0%

Source: Implementation contractor's September 2017 monthly engagement report with attendance and engagement recorded for all active MCCM hospices as of end of September 2017. Percentages are cell percentages. In-person case studies were conducted with 10 cohort 1 interviews between March and August 2017. Telephone case studies were conducted with eight cohort 2 hospices between July and August 2017. Telephone interviews with a subset of cohort 1 hospices that had low enrollment were conducted between July and August 2017. For more information about the case studies and low enrollment interviews, please see Section 1.3.2 and Appendix C.

[65] Se Appendix G for a complete list of learning and diffusion activities offered to MCCM hospices.

Staff we interviewed from both cohort 1 and cohort 2 hospices had mixed feedback about the usefulness of the webinars and other learning and diffusion activities CMS and its implementation contractor offered. Some hospices felt the large-scale webinars and informational phone calls were less helpful because the participants were in different stages of implementation. Those that were farther along found some material repetitive, or no longer pertinent, while those in earlier stages of implementation needed the information. Two cohort 1 hospices told us that CMS could not always provide immediate answers to unexpected questions, in the midst of a webinar or call. Another cohort 1 hospice noted that specific feedback and time for group discussion were the most helpful parts of the webinars and calls. An additional cohort 1 hospice felt that over time, the content of the learning and diffusion activities had improved, and that CMS offered content that addressed issues hospices had raised earlier. MCCM participants were eager to suggest additional topics that CMS could incorporate into future activities as listed in the box "Suggestions for Future Webinars".[66]

Suggestions for Future Webinars

- Provide information on how to coordinate with home health agencies and suggestions on how to avoid duplication of services.
- Create a standing slide for each CMS webinar, or time in the calls to review program eligibility changes and updates; create an accompanying updated checklist each time in the materials; update the manual to reflect changes.
- Include real-time and/or comparative data for hospices to see how other cohorts are doing and for benchmarking. Data might include the differences in unplanned and planned hospitalizations, improvements in outcomes, referral rate to MCCM, conversion rate to traditional hospice, length of stay, and caregiver stress.
- Present aggregate information on the hospices participating in MCCM to help hospices determine the most efficient implementation approach based on expected reimbursement.
- Develop webinars for referral sources that hospices could attend with their referring providers to address providers' questions.

In addition to webinars and phone calls, two hospices noted that the in-person training[67] at CMS was helpful but expensive (staff travel time, etc.). Other helpful learning and diffusion activities mentioned in interviews included a Google group[68] with other MCCM hospices, and weekly email newsletters. One cohort 1 hospice found the content of the newsletters[69] helpful and regularly distributed them to appropriate MCCM team members. A hospice clinician suggested that CMS could offer role-based learning communities that staff from participating hospices across the country could join for peer-to-peer learning. For example, MCCM care coordinators could have a forum to discuss challenges and lessons learned. Additionally, two cohort 1 hospices suggested that CMS could create explanatory materials for referral sources. Overall, it appears different hospices preferred different modes and content for learning activities, and most use a variety of learning activities to stay current as the model progresses.

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66 Several of these topics had been covered by the MCCM program team over the past year, although perhaps they had not been offered at the time of the case study. A complete list of learning and diffusion activities offered to MCCM hospices can be found in Appendix G. Additionally, CMS provides hospice-specific feedback reports through the implementation contractor, but these reports may not have been available at the time of the case studies in which some of these suggestions were made.

67 CMS provided an in-person training in Baltimore, MD for MCCM hospices in each cohort before implementing the model. The cohort 1 training was held on September 28, 2015, and the cohort 2 training was held on October 5-6, 2017. While the training was free to the participating hospices, CMS did not pay travel costs under the model.

68 In early 2018, CMS launched a discussion board for MCCM hospices and added it to the MCCM portal as an avenue to facilitate cross-hospice discussion.

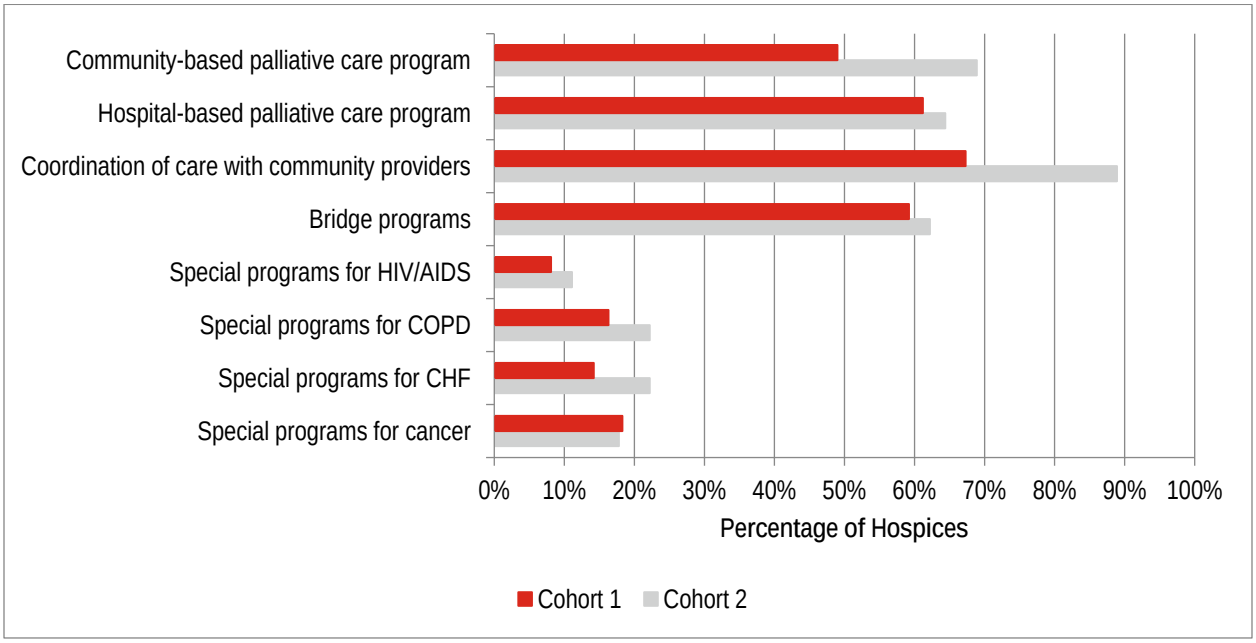
69 Newsletters have since been replaced by weekly email "blasts" to convey important notices and information about the model to participating hospices.

4.4.2 Effects of Prior Experience with MCCM Diagnoses and Related Programs

Several MCCM hospices had had prior experience with special programs in chronic and advanced illnesses, bridge programs,[70] and operation of or affiliation with palliative care programs, as shown in Exhibit 4.15. These programs offered experience working with beneficiaries who were still pursuing curative treatment—experience that hospice staff would not otherwise have, with beneficiaries electing MHB.

Most hospices in both cohorts who responded to our organizational survey reported no prior experience with special programs in cancer, CHF, COPD, or HIV/AIDS, although nearly 60 percent of the hospices in both cohorts already had a bridge program. Most hospices—67.3 percent in cohort 1 and 88.9 percent in cohort 2—also reported prior experience coordinating care with non-hospice (i.e., life-prolonging treatment) providers.

Exhibit 4.15: Coordination with Palliative Care Programs and Community Providers, Prior Experience with Bridge Programs, and Special Clinical Programs



Source: Cohort 1 and 2 organizational survey, fielded September–December 2017.

Note: Special care programs include processes or protocols specifically for individuals with that condition, or designated staff serving individuals with that condition. Exhibit is based on 49 hospices in cohort 1 and 45 hospices in cohort 2 responding to a survey. All hospices responded to all questions with the following exceptions. Only 48 cohort 1 hospices responded to the questions about community-based palliative care programs and coordination of care with community providers. Only 43 cohort 2 hospices responded to the questions about special programs for HIV/AIDS, COPD, and CHF. Bridge programs provide specialty care and pain/symptom management for persons with life-limiting illnesses who are still receiving curative or palliative treatment. HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; COPD = chronic obstructive pulmonary disease; CHF = congestive heart failure.

[70] Bridge programs provide specialty care and pain/symptom management for persons with life-limiting illnesses who are still receiving curative or palliative treatment.

4.5 Conclusion

During the first year of the evaluation, there was considerable variation in how cohort 1 hospices implemented MCCM and how cohort 2 hospices planned to implement MCCM. Differences included how they staffed their MCCM initiatives, the training provided to MCCM staff, how they marketed MCCM to referral sources, and the implementation challenges they experienced. In future reports we will present findings from the second round of the organizational survey, and compare cohort 2 plans during the first survey with their actual implementation in the follow-up survey. We will also report on another year of case studies, which will continue to add context and nuance to findings from the organizational survey and other analyses.

5. How Do Participating Hospice Staff, Referring Providers, and Enrollees Perceive MCCM?

During case studies with cohort 1 hospices this year, we had the opportunity to interview hospice staff at all levels to discuss their perceptions of and experiences with MCCM. We also interviewed community providers who referred their patients to MCCM and worked with MCCM hospices to coordinate the care their patients received. Finally, we interviewed MCCM enrollees and their caregivers to understand their experiences and satisfaction with their care. All of the information reported in this section is from in-person interviews with cohort 1 hospices conducted between March and August 2017, and the organizational survey fielded with participating hospices in both cohorts between September and December 2017.

This section addresses the following research questions:

- *What participant, provider, and beneficiary perceptions contribute to or hinder success of this model?*
- *Do beneficiaries in the model and their caregivers express greater satisfaction and improved experiences with their care?*

Key Findings about Stakeholder Perceptions of MCCM

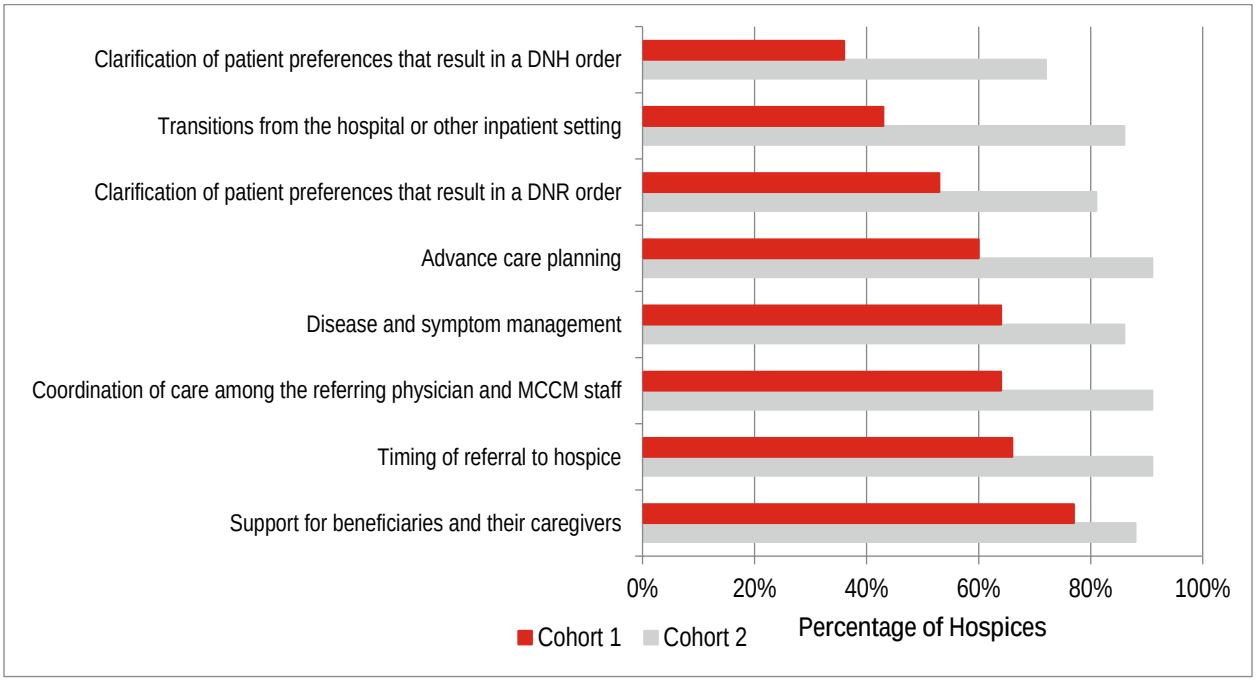
- Many interviewees felt that MCCM could reduce Medicare expenditures through fewer ED visits and/or hospitalizations and earlier entry to MHB. (Section 5.1)
- Hospice staff expressed increased professional satisfaction, as MCCM gave them an opportunity to forge deeper and more meaningful relationships with enrollees, rather than meeting people for the first time when they are actively dying, as often happens with hospice care. These relationships could also facilitate enrollees' transition to MHB. (Section 5.1)
- The MCCM reimbursement meant that hospices relied more on telephone encounters, and fewer in-person visits, than some hospice staff preferred. (Section 5.1)
- Referring providers appreciate the additional layer of support and in-home services MCCM offers their patients. They also feel MCCM reduces ED visits through 24/7 access to clinicians. (Section 5.2)
- The MCCM enrollees and their caregivers whom we interviewed were universally satisfied with MCCM. They expressed improved quality of life and peace of mind from having additional assistance managing their terminal condition. (Section 5.3)

5.1 Hospice Staff Perceptions

Approximately two-thirds or more of hospices in cohort 1 reported that MCCM had major or moderate impact on support to beneficiaries and caregivers (76.6 percent), timing of referral to hospice (66.0 percent), coordination of care among the referral physician and MCCM staff (63.8 percent), and disease and symptom management (63.8 percent). The anticipated impact of MCCM on all aspects of care, as reported by cohort 2 hospices, was even higher, as shown in Exhibit 5.1. More than 90 percent of

hospices in cohort 2 anticipate that MCCM will have a major or moderate impact on timing of referral to hospice, coordination of care, and advance care planning.

Exhibit 5.1: Perceived Major or Moderate Impact on Aspects of Care Provided through MCCM



Source: Cohort 1 and 2 organizational survey, fielded September–December 2017.

Note: Exhibit is based on responses from 47 of 49 cohort 1 hospices and 43 of 45 cohort 2 hospices responding to a survey and answering this question. DNH = do not hospitalize; DNR = do not resuscitate

We heard similar feedback about the model during interviews with hospice staff, who told us about their first-hand experiences of the model's impact on enrollees. Hospice staff reported positive experiences from being part of MCCM, and believed the model led to more appropriately timed transitions to MHB. Staff told us they had more opportunities to build rapport and discuss hospice care with MCCM enrollees and their caregivers, ensuring everyone was fully aware of the beneficiary's goals of care. Given the typical short duration in hospice for MHB enrollees, the added time to build these relationships seemed to be a source of professional satisfaction for hospice staff, even if those staff do not continue providing care to MCCM enrollees after the transition to MHB. They appreciated meeting beneficiaries before they were actively dying, as frequently happens in hospice care. They expressed that these relationships help provide a seamless transition from MCCM to MHB, for both beneficiaries and hospice staff. Even when a beneficiary transfers to a different team for hospice care, MCCM staff are able to facilitate that transition by conducting a joint visit with the hospice team to "hand off" care. Interviewees also told us that the added time to build rapport and initiate conversations is especially useful for beneficiaries from

communities/cultures that have historically underused hospice or hospice-like services (e.g., African Americans, Appalachian communities) due to stigma often associated with hospice care.[71]

While hospice staff felt that the care coordination associated with MCCM would have a positive impact on MCCM enrollees, they described this task as time-consuming and resource-intensive. Many staff members shared that they spent much more time coordinating services for MCCM enrollees than for MHB beneficiaries, because MCCM enrollees were still seeking treatment from other providers. Hospice staff also told us that MCCM could have an even greater impact if the staff could provide more in-person visits, but they rely more on telephone encounters because the $400 PBPM does not support many in-person visits. At hospices that use a designated MCCM care team, staff do not maintain relationships with enrollees when they transition to MHB, which made the transition difficult for some enrollees.

Staff from several cohort 1 hospices predicted that MCCM had the potential to reduce Medicare expenditures through reduced use of EDs and/or hospitalizations, and to support earlier entry to MHB. Many offered examples of how their 24/7 nurse call lines helped reduce overuse of health care services. All told us that offering a 24/7 clinician call line, whether or not after-hours in-person visits were offered, could possibly avoid ED visits and/or hospitalizations.

In addition to its lowering ED utilization, one hospice staff person suggested that the MCCM emphasis on advance care planning and empowering enrollees and their caregivers to participate in care decision making could help enrollees avoid futile, costly therapies toward the end of their life. Some MCCM enrollees we interviewed also felt MCCM could reduce costs by providing sufficient services and support to allow beneficiaries to remain at home rather than seeking institutional care.

Examples of Reduced Medicare Expenditures in MCCM through 24/7 Access to a Hospice Team

[The beneficiary] explained that the team explained her own disease process to her, and when she called the 24/7 hotline, the MCCM staff addressed her needs, and she avoided going to the hospital three times since enrolling in MCCM.

–Cohort 1 hospice

The Care Coordinator provided an example of how the 24/7 hotline helped to avoid a beneficiary ED visit. The MCCM beneficiary was discharged from the hospital with new medications that were not reconciled with her other medications. At home, she became lethargic and called the hospice 24/7 line. The MCCM nurse called the community provider and suggested discontinuing the medicines; the community provider agreed, and the beneficiary's condition improved.

–Cohort 1 hospice

Another hospice gave an example of an MCCM beneficiary who had severe COPD. He regularly went to the ED, but after enrolling in MCCM, he had had only two hospitalizations in six months. Staff thought the education provided to him and his caregiver by the MCCM nurse about using oxygen and an inhaler when short of breath, instead of calling 911, helped reduce his ED visits.

–Cohort 1 hospice

The MCCM coordinator felt MCCM saves Medicare money by keeping beneficiaries out of the hospital and at home as long as possible "by having someone to call instead of running to the hospital or doctor when having a health care crisis," and by addressing advance care planning earlier in a patient's disease process.

—Cohort 1 hospice

[71] O'Mahony, Sean, et al. (March 2008). A Review of Barriers to Utilization of the Medicare Hospice Benefits in Urban Populations and Strategies for Enhanced Access. *Journal of Urban Health*, 85 (2), 281-290.

5.2 Referring Providers' Perceptions

Our evaluation researchers interviewed a selection of referring providers who have relationships with six of the 10 cohort 1 hospices we visited. These individuals had various backgrounds, and included physicians, social workers, discharge planners, and advanced practice nurses. These referring providers were extremely receptive to MCCM, and identified many positive elements of the model. Referring providers see MCCM as an opportunity to provide added support through in-home services and care coordination for enrollees pursuing life-prolonging treatment. Referring providers believe MCCM improves communication with enrollees and their caregivers and reduces the stigma of hospice. These interviewees see MCCM as ideal for their patients who have an unclear prognosis, meeting the needs of beneficiaries who are in between home health care and palliative care or MHB. Referring providers also felt that MCCM was effective in keeping enrollees in their homes instead of in and out of the hospital. The extra layer of care seemed to address problems early, through 24/7 access, and more frequent interactions than the referring provider could offer. A few referring providers thought MCCM could reduce Medicare spending by encouraging earlier entry into MHB. They also suggested that care coordination and "continual checking in" with enrollees could reduce the number of ICU admissions and ED visits.

> *"For me, the most important thing is that I can get information about the patients. I struggle to educate about symptoms and they're not always able to do it on their own, so when MCCM calls and someone is checking on my patients, that's great. Care coordination is very important in primary care."*
>
> –Referring physician

Referring providers (who could be non-physicians such as a social worker or discharge planner) mentioned some concerns they had with the model. For example, in hospices where many MCCM referrals come from nurses or social workers rather than from physicians, the MCCM enrollee's attending physician was sometimes less engaged or enthusiastic about MCCM. Hospice staff suggested that some physicians' indifference to MCCM was because it "added another thing to their to-do list," not necessarily because they disapproved of the model.

Like some hospice staff, some referring providers expressed difficulty in understanding the roles and responsibilities of different individuals on the MCCM care teams. There was also some confusion about how to integrate the MCCM care team into the treatment plan for the terminal diagnosis.

5.3 Enrollee and Caregiver Perceptions

Two hospices we visited told us that they had used their own CAHPS survey data to compare MCCM enrollees and those in MHB, and had found that MCCM enrollees had more positive experiences of care at the end of life than beneficiaries in MHB.[72]

[72] This information was separate from the Caregiver Experience of Care Survey, which is part of our evaluation. The Caregiver Experience of Care Survey builds on the CAHPS Hospice survey by adding 15 supplemental items to the CAHPS Hospice instrument for beneficiaries who spent some portion of time in MCCM before transitioning to hospice. For MCCM enrollees who never elect hospice, they only receive the MCCM-specific supplemental items.

Enrollees and their caregivers whom we interviewed were extremely positive about their experiences with MCCM. The enrollees and caregivers learned about MCCM in a number of ways, including through a palliative care service, from hospice staff, in a hospital setting, or from their community providers. All of the enrollees and their caregivers felt that they had enrolled in MCCM at the appropriate time in their disease trajectory. We did not interview anyone who had transitioned to MHB, due to Institutional Review Board concerns.[73]

Enrollees and their caregivers we interviewed said that MCCM improved their quality of life and gave them peace of mind. Enrollees and their caregivers appreciated the access to a clinician after hours, and felt this prevented them from using the ED. Enrollees and their caregivers mentioned that they had reduced or stopped their visits to the hospital since enrolling in MCCM, and believe it will result in decreased costs for themselves and for Medicare.

> *"That extra set of hands, eyes to assess the situation is such a relief on the caregiver – to know, especially with lung cancer, I don't have to wait six weeks to go back to the doctor and someone can check on her, to know how she's doing."*
>
> –Caregiver to an MCCM enrollee

Enrollees and their caregivers mentioned MCCM nurses acting as their personal advocates and helping them access community-based services or obtain medical equipment. They said staff also helped them through advance care planning conversations with other caregivers.

5.4 Conclusion

Hospice staff, referring providers, and MCCM enrollees and their caregivers all reported high levels of satisfaction with MCCM. Stakeholders in each of these categories felt that MCCM could reduce Medicare expenditures and facilitate the transition from MCCM to MHB. Section 6 presents information about MCCM enrollees' transition to MHB.

[73] The Abt Associates Institutional Review Board (IRB) had concerns about interviewing anyone who was currently enrolled in hospice care, due to the vulnerable nature of these individuals at the end of their lives. Given the observed lengths of stay in hospice care prior to expiring, the IRB felt it would be overly burdensome for the evaluation team to interview these individuals.

6. What Do We Know about Transitions from MCCM to Hospice?

MCCM has the potential to improve the quality of life of Medicare beneficiaries enrolled in the model, increase enrollee and caregiver satisfaction with care at the end of life, and reduce Medicare expenditures. During case studies, we frequently heard that MCCM is excellent for beneficiaries who are not ready to forgo treatment for their terminal condition, which is a requirement for MHB. An important evaluation focus, therefore, is whether MCCM facilitates the transition to MHB earlier in the disease trajectory so that beneficiaries have time to receive the full range of hospice services in the days and weeks preceding death. This section describes what we know so far about MCCM and its relationship to hospice, addressing the following research question:

- *Did beneficiaries in the model elect the Medicare or Medicaid hospice benefit at a higher rate?*

Key Findings about the Transition from MCCM to Hospice

- More than four out of five MCCM enrollees (83.2 percent) eventually transitioned to MHB before they died. Beneficiaries averaged three months between MCCM enrollment and death. During those three months, the first two months (62.0 days) were spent in MCCM and the remaining month (30.5 days) in MHB. (Section 6.1)
- Beneficiaries with (only) CHF had the longest MCCM enrollment (77.0 days on average) before transitioning to MHB. (Section 6.1)
- Compared to those who were not dually eligible for Medicare and Medicaid, beneficiaries with dual eligibility had a longer time between MCCM enrollment and death, on average (108.3 days), and a lower rate of transition to MHB (75.9 percent). (Section 6.1)
- Among MCCM enrollees, 85 (14.3 percent) remained in MCCM until death, 494 (83.2 percent) transitioned from MCCM to MHB, and the remaining 15 (2.5 percent) withdrew from MCCM and died without any recorded MHB election. (Section 6.2)
- Hospice staff reported that MCCM helps individuals become more familiar and comfortable with the idea of hospice care. (Section 6.3)
- After an MCCM enrollee transitions to MHB, the person generally continues with the same care team that he or she had in MCCM; when teams differ, the MCCM team conducts a careful hand-off to MHB staff. (Section 6.4)

6.1 Transition from MCCM to Hospice and Duration to Death

To better characterize transitions from MCCM to MHB among MCCM enrollees dying prior to June 30, 2017, we calculated *how many* MCCM enrollees eventually entered MHB and *when this occurred*. The rates of transition and the average survival duration (in days) from the date of MCCM enrollment to the date of death are presented in Exhibit E.27 (Appendix E, Section E.6.1). [74] We also present the timing of

[74] The number of MCCM enrollees transitioning to MHB is reported as a higher number in this section (83.2 percent) relative to that reported in Section 2.3.2 (75.7 percent). The Section 2 estimates were calculated using MCCM portal data, and hospices may have misreported transition to MHB in the MCCM portal, or beneficiaries may have transitioned to MHB after leaving MCCM for one of the other reasons listed in the portal (e.g., the patient could have requested voluntary discharge and then later enrolled in MHB). Estimates in Section 6 are based on hospice claims, and a transition to MHB is counted for any enrollee using MHB after MCCM enrollment.

MHB transition, and the days from MCCM enrollment to MHB transition, and between transition and death. Highlights of these results are as follows:

- Average enrollment in MCCM occurred approximately three months (88.5 days) before death (n=594).[75]
- Four out of five (83.2 percent) MCCM enrollees that died on or before June 30, 2017 transitioned to MHB (n=494); these individuals were similarly enrolled in MCCM for about three months (91.5 days) before death.
  - Conversion to MHB occurred on average approximately two months after MCCM enrollment (62.0 days) or approximately one month (30.5 days) prior to death.[76]
  - Most MCCM enrollees who transitioned to MHB stayed on MHB until death.[77]

To explore any differences related to diagnosis or medical complexity, we examined the average survival (in days) from the date of MCCM enrollment to the date of death, and the rate of MHB transition, by diagnosis and multimorbidity, functional status, and dual eligibility status. The results below will help us select a well-matched comparison group for future impact analyses, especially for measures where beneficiaries with different diagnoses use MHB at different rates, or have longer intervals between MCCM enrollment and death. Results indicate that:

- *Diagnosis*: MCCM enrollees with (only) CHF had the longest MCCM enrollment before transitioning to MHB (77.0 days on average), as shown in Exhibit 6.1. MCCM enrollees with (only) CHF transitioned to MHB with more days before they died (44.7 days on average) than was true for other diagnoses. Lastly, MCCM enrollees with cancer, COPD, and CHF (i.e., had all three diagnoses) transitioned to MHB closer to death than did others (just 11.0 days prior to death, though we note there were only four such beneficiaries).
- *Functional Status*.[78] MCCM enrollees with a functional status identified as "independent" at MCCM admission had the longest MCCM experiences prior to death (109.2 days), and had the highest rate of transition to MHB (88.2 percent), as shown in Exhibit 6.2. MCCM enrollees who were completely dependent on others had the shortest interval between MCCM enrollment and death, and transitioned to MHB at a rate similar to those needing some assistance (just over 82 percent).

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75 For these analyses, one of the 595 MCCM decedents was omitted due to an inconsistent date of death (recorded in the Medicare enrollment database as occurring prior to recorded dates of hospice service), leaving a total analytic sample of 594.

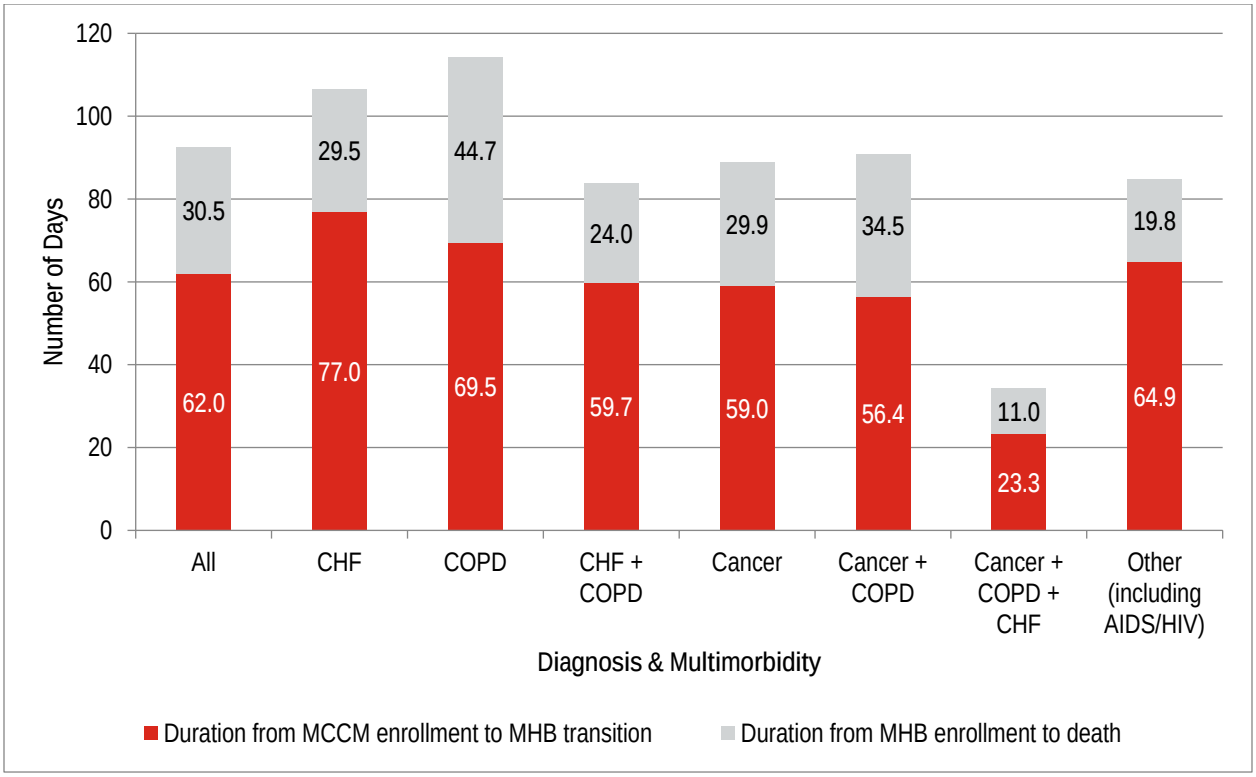
76 Note that the timing from MCCM enrollment to MHB transition (62.0 days) and MHB transition to death (30.5 days) is exactly one day greater than the timing from MCCM enrollment to death (91.5 days). This is because in calculating timing with respect to MHB transition, the transition day is counted twice. For example, suppose a person enrolls in MCCM on Monday, transitions to MHB on Tuesday, and dies on Wednesday. We would say his survival was three days (Monday, Tuesday, Wednesday), he was on MCCM two days before transitioning to MHB (Monday and Tuesday), and he elected MHB two days before death (Tuesday and Wednesday). In this case, Tuesday is counted twice.

77 We determined this by noting that the average MCCM enrollee who transitioned to MHB had used MHB for 30.3 days before death, which is almost exactly the average time between MHB transition and death (30.5 days). There is seemingly little pre-death disenrollment from MHB among MCCM enrollees.

78 Functional status is measured at MCCM assessment and recorded by the participating hospice in the MCCM portal. We present an analysis of the distribution of functional status findings in Section 2.3.1.

- *Dual Eligibility*. Individuals with dual eligibility had a longer time between MCCM enrollment and death on average (108.3 days), and a lower rate of transition to MHB (75.9 percent) than those not dually eligible for Medicare and Medicaid, as shown in Exhibit E.27 (Appendix E, Section E.6.1).

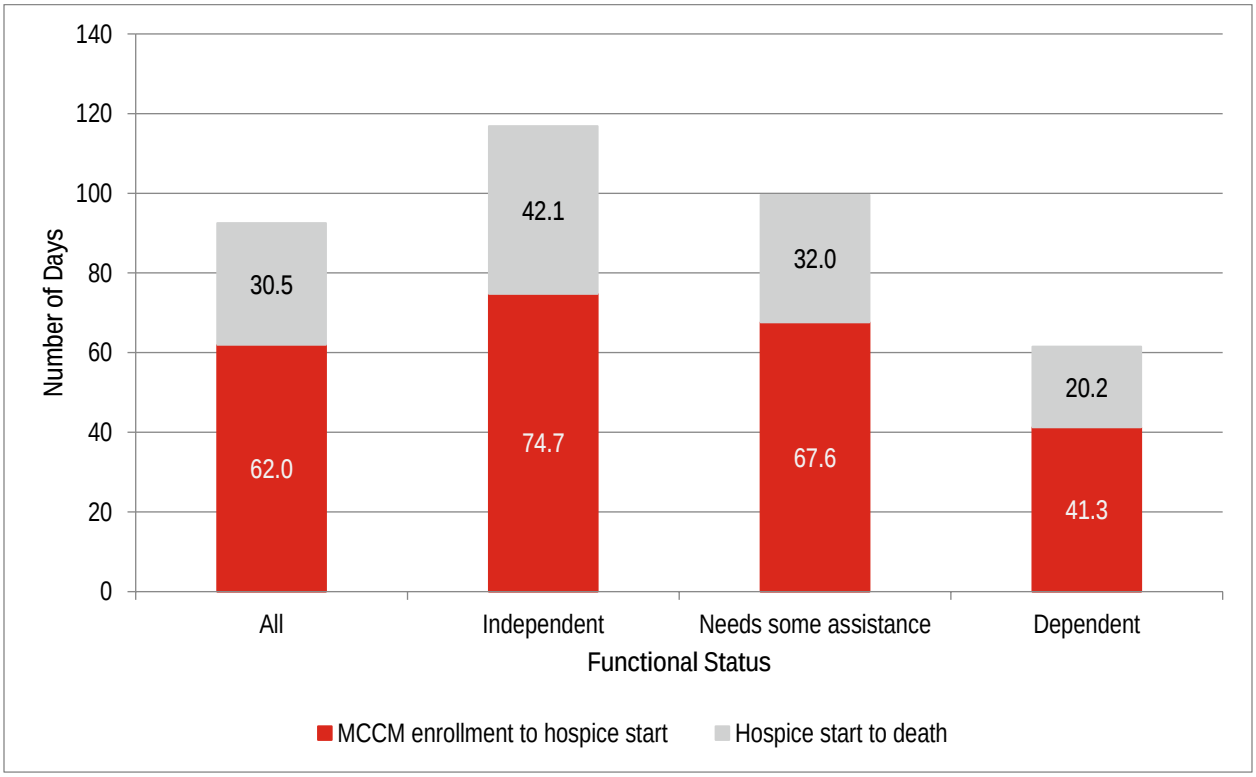
Exhibit 6.1: Number of Days from MCCM Enrollment to Medicare Hospice Benefit (MHB) Start and Number of Days from MHB Start until Death, by Diagnosis and Multimorbidity



Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal data.

Note: Analysis based upon 494 MCCM enrollees who later transitioned to the MHB, among the 595 MCCM enrollees that died prior to June 30, 2017 (excluding one decedent with an apparent error in recorded date of death). CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

Exhibit 6.2: Number of Days from MCCM Enrollment to Medicare Hospice Benefit (MHB) Start and Number of Days from MHB Start until Death, by Functional Status



Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal data.

Note: Analysis based upon 494 MCCM enrollees who later transitioned to the MHB, among the 595 MCCM enrollees that died prior to June 30, 2017 (excluding one decedent with an apparent error in recorded date of death).

6.2 Characteristics of MCCM Enrollees Who Transitioned to Hospice

To evaluate the process of transitioning to MHB, it is important to understand the characteristics of beneficiaries who elect MHB and those who do not, and why some beneficiaries withdraw from MCCM and/or MHB. Beneficiary characteristics associated with leaving MCCM are shown in Exhibit E.28 (Appendix E, Section E.6.2).[79] Among MCCM enrollees, 85 (14.3 percent) remained in MCCM until death, 494 (83.2 percent) transitioned from MCCM to MHB, and the remaining 15 (2.5 percent) withdrew from MCCM and died without any recorded MHB election. There were no significant differences among these groups on most characteristics,[80] with the following notable exceptions:

[79] The characteristics we examine are: age, gender, race/ethnicity, and dual eligibility; region and urban/rural status; functional status, diagnosis and multimorbidity, comorbidity presence, and HCC score; Medicare utilization in the last 30 days of life (inpatient admissions, ED visits, SNF admissions, or home health admissions) and end-of-life spending in the last 30 and 365 days of life; and, finally, marital status, caregiver availability, and beneficiary living arrangements. Specifications for all measures included are provided in Appendix A, Section A.5.3, Exhibit A.3.

[80] We analyzed the characteristics using chi-square tests for similarity in composition across the three withdrawal status subgroups (those never withdrawing, those transitioning to MHB, and those who withdrew and never elected MHB).

- *Diagnosis and multimorbidity*: We found that diagnosis and multimorbidity are strongly associated with MCCM discharge status (p-value<0.01): whether the beneficiary transitioned to MHB (65.2 percent of that group was cancer-only), remained in MCCM until death (41.2 percent of that group was cancer-only), or withdrew and died without MHB (33.3 percent of that group was cancer-only). Discharge status may be related to diagnosis and multimorbidity if the rate of enrollees' decline is different across diagnoses.
- *HCC score*: The HCC risk score summarizes each Medicare beneficiary's expected cost of care, relative to that of all other beneficiaries. It incorporates beneficiary demographics, disease factors, prior use of services, and prior spending. A higher score indicates a more costly (and probably sicker) beneficiary. We found strong statistical evidence (p-value<0.01) of differences in MCCM discharge status by HCC score (average HCC score of 2.56 among those withdrawing without MHB vs. HCC score of 1.86 among those transitioning to MHB). These findings suggest that enrollees likely to be high-cost are more apt to withdraw from MCCM and die without MHB, while enrollees likely to be low-cost are more likely to transition to MHB.

6.3 Beneficiary and Provider Perspectives on Transitions from MCCM to MHB

What we learned when interviewing hospice staff and other stakeholders confirms the results described above. Staff from the cohort 1 hospices we visited told us that the overwhelming majority of their MCCM enrollees eventually transition to MHB. They also reported that MCCM is especially helpful for beneficiaries who are initially reluctant to accept hospice. These beneficiaries become familiar and comfortable with the MCCM staff, and begin to experience the value of hospice services. Staff from seven of the 10 cohort 1 hospices we visited explained that they discuss MHB throughout an enrollee's time in MCCM, and identify the most appropriate time to raise the option of transitioning to MHB. Hospice staff also described a delicate balance in deciding which services are appropriate (and financially feasible for the hospice to provide) under MCCM, and when it would be more advantageous for both the beneficiary and the hospice to transition to MHB. The different Medicare payment rates for MCCM and MHB are considered in this decision and timing.[81]

> *"So the hospice teams are also pretty much caring for the [MCCM] patients that are being enrolled, too, and the beauty of having that is once they are clearly ready to choose hospice even though they've been eligible from the start, they know the team, they trust the team, the team can help with the conversations with the goals of care planning to get them there. And they already know us…it's seamless."*
>
> –Hospice chief operating officer

When an MCCM enrollee transitions to hospice, four of the 10 cohort 1 hospices keep the same care team that enrollees got to know during their time in MCCM. The remaining six cohort 1 hospices transition MCCM enrollees to a new hospice-care team once they elect MHB (although often certain members of the care team remain the same—e.g., chaplains or aides). In these instances, MCCM staff workers do a hand-off with the hospice team to help the enrollee and their caregivers with the transition.

[81] Approximately 98 percent of MHB days are at the routine home care level of care, and paid at $191 per day for the first 60 days of MHB and $150 thereafter (at federal Fiscal Year 2017 rates). Just a few days at this payment level would surpass the maximum monthly MCCM payment of $400.

6.4 Hospice Transition Challenges

Cohort 1 hospices experienced several challenges in transitioning MCCM enrollees to MHB. In some cases, community providers feel that MCCM fully meets their patients' needs and there is no need to discuss MHB, even when a beneficiary's condition deteriorates. In contrast, some MCCM enrollees transition to MHB soon after enrolling in MCCM, as they become more comfortable with the services hospice staff can offer. One hospice staff member told us about a situation where soon after an oncologist referred a patient to MCCM, the individual quickly transitioned to MHB and decided to end chemotherapy. That incident damaged the hospice's referral relationship with the oncologist, who felt that MCCM was moving beneficiaries away from community care and toward MHB too quickly.

There was some concern among cohort 2 hospices we interviewed that enrollees might be so satisfied with services received under MCCM that they would resist transitioning to MHB (and forgoing treatment for their terminal condition). Only one cohort 1 hospice reported that some of their MCCM enrollees chose to stay in MCCM instead of transitioning to MHB as a way to keep their options open. Our quantitative findings (Section 6.1) suggest that this has not been the experience of most cohort 1 hospices, and may not arise with cohort 2 hospices either.

6.5 Conclusion

This section presented what we know so far about MCCM and its relationship to hospice care. During our interviews, we frequently heard that MCCM is good for beneficiaries who are not ready to give up treatment for their terminal condition, and we will continue to evaluate whether MCCM facilitates the transition to MHB earlier in beneficiaries' disease trajectories. More than four out of five MCCM enrollees eventually transition to MHB, on average after two months of MCCM enrollment and about a month prior to death. We learned from MCCM staff that the model helps individuals who were initially reluctant to accept hospice care become more familiar and comfortable with what hospice care has to offer, which may facilitate transitions to MHB. In addition, hospice care is generally provided by the same care team that worked with the beneficiary in MCCM, which further eases the transition. What we have learned so far supports the objective of MCCM to provide access to supportive services through hospice.

7. Lessons Learned and Next Steps

CMS designed MCCM to test the effect of allowing eligible beneficiaries to receive supportive services from participating hospices while continuing to receive treatment for their terminal condition, if desired, through fee-for-service Medicare. This first report of the MCCM evaluation presents findings from descriptive analyses focused on a broad array of topics.

Key Findings for the Report Include

- Hospices successfully implemented MCCM, but enrollment was lower than expected.
- Due to low enrollment, it is too early to measure any impacts MCCM has on outcomes at the end of life.
- Hospice staff, referring providers, and MCCM enrollees generally expressed high levels of satisfaction with the concept of MCCM.

Although MCCM started with 141 participating hospices randomly assigned to cohort 1 and cohort 2, only 104 hospices were participating in the model as of January 1, 2018. Hospices withdrew from the model for multiple reasons, with many citing concerns about beneficiary eligibility criteria and the adequacy of the PBPM payment. Between January 1, 2016, and June 30, 2017, hospices participating in the model enrolled 1,092 individuals in MCCM. This demonstrates that hospices can implement the model and recruit beneficiaries, but we do not yet have enough enrollees to compare MCCM enrollees with others like them who did not enroll, and be able to detect differences statistically.

Hospice staff and referring providers generally expressed high levels of satisfaction with the concept of MCCM, despite concerns about reimbursement, model requirements, and reporting. The MCCM enrollees and their caregivers we interviewed were universally satisfied with the model.

Hospices have been active in providing services to enrollees during the first two years of MCCM (January 2016 to December 2017). MCCM enrollees had an average of 10.6 encounters per month with MCCM staff, including both in-person and telephone encounters. Enrollees told us that these services gave them improved quality of life and peace of mind, and assistance managing their terminal diagnosis.

Because of the phased implementation design of the model, only cohort 1 hospices enrolled beneficiaries from January 2016 through December 2017. Cohort 2 hospices (randomly selected among all MCCM participants) started enrolling on January 1, 2018. We anticipate that with these additional hospices the model will become large enough to conduct valid statistical comparisons of MCCM and similar non-MCCM beneficiaries, including impacts of the model on use of health care at the end of life, Medicare expenditures at the end of life, and length of enrollment in MHB.

In future evaluation reports we will continue to monitor trends in enrollment, satisfaction with the model, and use of health care services, both inside and outside of the model. Future evaluation reports will share additional results from organizational surveys, claims analysis, a caregiver survey (see Section 1.3.4), and case studies and interviews, including reasons that hospices withdraw from MCCM. The CECS will measure whether beneficiaries in the model receive higher quality of care at the end of life, and whether beneficiaries in the model and their caregivers have better experiences than comparable beneficiaries who receive hospice care without first using MCCM.

Technical Appendices

The following appendices provide additional technical details and documentation:

- **Appendix A** discusses our quantitative methods, data sources, and measure specifications
- **Appendix B** lists the evaluation research questions addressed in this report, in addition to some topics that have been left for future reports
- **Appendix C** contains our qualitative approach and methodology, including our case study protocols
- **Appendix D** discusses our approach to fielding our organizational survey and includes a copy of the questionnaire
- **Appendix E** includes additional or expanded quantitative findings
- **Appendix F** presents a high-level overview of our case study thematic findings
- **Appendix G** summarizes the model's learning and diffusion activities offered from 2015 – 2017

Acronyms in Appendices

ACO	Accountable Care Organization
ALS	Amyotrophic Lateral Sclerosis
BETOS	Berenson-Eggers Type of Service
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CCW	Chronic Conditions Warehouse
CHF	Congestive Heart Failure
CMMI	Center for Medicare and Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
DME	Durable Medical Equipment
E&M	Evaluation and Management
ED	Emergency Department
EHR	Electronic Health Record
ESRD	End-Stage Renal Disease
HCC	Hierarchical Condition Category
HCPCS	Healthcare Common Procedure Coding System
HHA	Home Health Agency
HICN	Health Insurance Claim Number
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICD	International Classification of Diseases
ICU	Intensive Care Unit
IRB	Institutional Review Board
LPN	Licensed Practical Nurse
MAC	Medicare Administrative Contractor
MBSF	Master beneficiary summary file
MCCM	Medicare Care Choices Model
MHB	Medicare hospice benefit
NPI	National Provider Identifier
N	Number
PBPM	Per Beneficiary Per Month
POS	Provider of Services
QAPI	Quality Assurance and Performance Improvement
RN	Registered Nurse
SNF	Skilled Nursing Facility

Technical Appendix A: Quantitative Methods

This appendix describes the development of the analytic files used in this report. It explains the populations examined, input data files used, data cleaning steps, and construction of measures.

A.1 Populations Examined

The claims analyses in this report focus mainly on Medicare Care Choices Model (MCCM) enrollees (referred to as *MCCM ever-enrolled beneficiaries – cohort 1*), and MCCM enrollees who died (referred to as *MCCM decedents – cohort 1*). In many analyses, we also included non-MCCM Medicare beneficiaries who died (referred to as *MCCM-eligible nationwide decedents*). Some of the outcome measures, such as expenditures at the end of life, require the use of decedents. To keep the samples of beneficiaries consistent throughout the report, we mainly presented results for the decedents in the body of the report and present in the appendix counterparts to those tables for the *MCCM ever-enrolled beneficiaries – cohort 1*.

The analytic groups include the following fee-for-service Medicare beneficiary populations:

1. *MCCM ever-enrolled beneficiaries – cohort 1*: Beneficiaries who enrolled in MCCM between January 1, 2016, and June 30, 2017. These beneficiaries may have been deceased or alive as of June 30, 2017. There were 1,092 beneficiaries in this group.
2. *MCCM decedents – cohort 1*: Beneficiaries who enrolled in MCCM between January 1, 2016, and June 30, 2017, and died before June 30, 2017. This is a subset of the group above, and there were 595 beneficiaries in this group.[82]
3. *MCCM-eligible nationwide decedents:* All Medicare beneficiaries dying between January 1, 2016, and June 30, 2017, who would have been eligible for MCCM on the date six months prior to their deaths, based on Medicare administrative records. There were 305,375 beneficiaries in this group.

A.2 Construction of MCCM Eligibility Variables

We applied the MCCM eligibility criteria to a group of non-MCCM decedents to determine whether the beneficiary would have been eligible to enroll in MCCM six months prior to death. The *MCCM-eligible nationwide decedents* group is our closest current approximation of an equivalent group against which to compare characteristics of the *MCCM decedents – cohort 1*group. To construct the nationwide group, we omitted the eligibility criterion that beneficiaries should reside in the market of an MCCM provider, because we were constructing eligibility for the nation as a whole, and not eligibility limited to MCCM markets.

[82] Of these 595 beneficiaries, one beneficiary had an apparently incorrect date of death, in the Medicare enrollment database, which was listed as occurring before the date of hospice entry. Because this would create a negative value for duration of days from hospice entry to death, we excluded this person from many decedent analyses, and used a cohort of 594 instead. However, where possible – such as for demographic statistics – we included this person, in order to depict the MCCM population as completely as possible.

The following criteria were used to determine MCCM eligibility among the *MCCM-eligible nationwide decedents*. Generally, the date of reference—the starting point for checking prior use of health care—was the date six months prior to the date of death.

- Enrolled in Medicare fee-for-service Part A and Part B as primary insurance[83] for the entire previous 12 months (i.e., not enrolled in a Medicare managed care plan, including but not limited to Medicare Advantage, Health Care Pre-Payment Plan, or Program of All-inclusive Care for the Elderly).[84]
- Had a diagnosis as indicated by certain International Classification of Diseases (ICD)-9/10 codes for terminal cancer, chronic obstructive pulmonary disease (COPD), HIV/AIDS, or congestive heart failure (CHF).[85]
- Had had at least one hospital encounter (an emergency department (ED) visit, observation stay, intensive care unit admission, or hospital inpatient admission) in the last 12 months.
- Had had at least three office visits with any provider (defined as a primary care or specialist provider) in the last 12 months. An office visit was defined as a physician/supplier Part B claim or outpatient claim with the Healthcare Common Procedure Coding System (HCPCS) code of 99201-99499.
- Had not elected the Medicare hospice benefit (MHB) within the last 30 days.[86]
- Had lived in a traditional home continuously for the previous 30 days.[87]

Additional eligibility criteria in effect in March 2017, but not checked for this report, include the following:

- Beneficiary had not elected the Medicaid hospice benefit within the last 30 days. This was not used, due to concerns about whether Medicaid claims are current enough to capture Medicaid hospice

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83 To determine whether the person met this criterion, we used the "National Claims History Primary Payer Code" that indicates whether the beneficiary had a primary insurer other than Medicare. We looked for this code on hospice claims and inpatient Part A claims that had occurred up to 12 months before the enrollment date.

84 Monthly enrollment data from the Master beneficiary summary file were used to determine enrollment in Parts A and B, and Medicare Advantage (MA), a Medicare managed care plan. Managed care enrollment was found using the variable hmoindXX. A patient was enrolled in managed care if the value of that variable was equal to "1", "2", "5", "A", "B", or "C".

85 Diagnoses were found by looking 12 months prior to the beneficiary's first enrollment date at a cohort 1 or cohort 2 hospice or at the date six months prior to death for the *MCCM-eligible nationwide decedents*. All diagnoses (including primary and secondary diagnoses) from any claims in the physician/supplier Part B, durable medical equipment (DME), home health, hospice, inpatient, outpatient, and skilled nursing facility (SNF) datasets were examined to determine whether one or more of the four MCCM-qualifying diagnoses was present for a beneficiary.

86 This information came from the Oracle Medicare enrollment database file CCW_ONWER.CCW_BENE_HOSPC. We looked to see whether the most recent hospice start date (bene_hospc_cvrg_strt_dt) or termination date (bene_hospc_cvrg_trmntn_dt) was less than 30 days from MHB enrollment.

87 To determine a beneficiary's residential status (in the community or not), we used the reporting of a 90-day assessment in the SNF Minimum Data Set (MDS 3.0) and indication of a skilled nursing or inpatient rehabilitation facility stay. One limitation of this approach is that for the *MCCM-eligible nationwide decedents*, we cannot know for certain who was living in their own/traditional home six months prior to death, we can only exclude those we have administrative records of being institutionalized.

enrollment for the time periods we are evaluating. We plan to check for Medicaid hospice benefit enrollment in the future, as MCCM enrollment increases and Medicaid claims data become available.

- Patient's address was within the service area of an MCCM hospice. Again, this criterion was not used for assigning eligibility for the *MCCM-eligible nationwide decedents*. This group consists of eligible beneficiaries nationwide, including those who lived in an MCCM hospice's market (and may have been referred to MCCM) as well as those who lived in communities where MCCM was not available.
- Certified by a physician as having six months or less to live if the terminal condition were to run its usual course, in accordance with §418.22; with the certification being co-signed by the hospice medical director. For the *MCCM-eligible nationwide decedents*, however, we determined the date six months prior to the decedent's death and on that earlier date, verified that the decedent satisfied the other eligibility criteria. However, their terminal decline might not have been recognized as such by physicians on the date six months prior to their death and thus they might not have been certified with a terminal prognosis.
- A beneficiary who spends time in an assisted living facility, skilled nursing facility (SNF), or inpatient rehabilitation facility can be enrolled into MCCM only after first waiting 30 days. We were able to identify SNF and inpatient rehabilitation facility stays for this report, but removing residents of assisted living facilities will be added to future versions of the analysis.

Lastly, the eligibility criteria we employed for this report were those implemented in March 2017. Due to changes in the eligibility criteria that the Centers for Medicare & Medicaid Services (CMS) announced in January 2017, the actual criteria in effect at the start of MCCM in 2016 were more restrictive than after the changes were made. In the future when calculating program impacts, we may therefore use differing MCCM eligibility criteria that were in effect at the time of the potential enrollment in MCCM of a person from the *MCCM-eligible nationwide decedents* group (so that comparison groups better match those MCCM enrollees deemed eligible prior to the criteria changes).

A.3 Secondary Data Sources

Several input files were used to create the analytic files used in this report. Unless otherwise noted, we pulled data for this report in October 2017.

- Medicare claims data from 2014 to 2017
  - Physician/supplier Part B claims
  - DME claims
  - Home health agency (HHA) claims
  - Hospice claims
  - Inpatient claims
  - Outpatient claims
  - SNF claims
- Medicare enrollment database/Master beneficiary summary files, from 2014 to 2017

- Dartmouth Atlas of Health Care (http://www.dartmouthatlas.org/) information at the hospital referral region level, to approximate hospice market characteristics. Specific measures are discussed in Appendix A, Section A.5.2.
- MCCM portal data submitted by participating hospices on enrolled beneficiaries and services provided under the model. Hospices are required to report information in the MCCM portal no later than the seventh day of the month after each referral, enrollment, encounter, or discharge. From the MCCM portal, this report includes: hospice and beneficiary characteristics, and information on MCCM referrals and enrollment status, discharge status, encounters and services provided by the hospice to each enrolled beneficiary, caregiver availability, and quality metrics.[88]
- Provider of Services (POS) file[89] to obtain characteristics of hospices.
- Consumer Assessments of Healthcare Providers and Systems (CAHPS) Hospice Survey, to obtain information on characteristics not available in the POS, such as hospice chain affiliation. Note that the CAHPS data will also be used more extensively in future annual reports as we analyze the results from the Caregiver Experience of Care Survey, as described in Section 1.3.4.
- Chronic Conditions Warehouse (CCW) condition categories, to obtain beneficiary-level data on the presence of 27 chronic conditions (https://www.ccwdata.org/web/guest/condition-categories). We use this data to better understand comorbidities in the populations of beneficiaries we examine.

A.4 Linking MCCM Portal Data to CMS Claims Data

Information from the MCCM portal required cleaning in order to link it to CMS claims data. Beneficiary records with an inaccurate or missing health insurance claim number (HICN) were excluded. There were 7,024 preliminary beneficiary entries in the MCCM portal, of which 159 entries were excluded because the data for the beneficiary was not final in the database.[90] An additional 909 entries were excluded because they were duplicates or test data that did not represent an actual beneficiary. Finally, 244 entries were excluded because the HICNs did not match to corresponding demographic data in Medicare administrative records.[91] We employed a complex matching algorithm to link MCCM portal data with claims, checking for the following:

1. HICN, last name, first name, date of birth
2. Last name, first name, date of birth, state
3. Last name, first name, date of birth, ZIP code

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88 Examples of quality metrics that can be obtained from the MCCM portal include (but are not limited to) information on: dyspnea (difficulty in breathing) screening and treatment, pain screening and treatment, and use of a bowel regimen.

89 See: https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Provider-of-Services/index.html.

90 The MCCM portal can contain multiple entries for a single beneficiary and requires the elimination of records that are not current or finalized. The variables **record_type** and **bene_record_num** are examined to determine if the record is finalized.

91 Several HICNs were corrected after examining the demographic information in the MCCM portal as compared to that found in the Medicare enrollment database.

4. Phonetic coding (soundex)[92] of last and first names, date of birth, state, ZIP code
5. HICN, phonetic coding (soundex) of last and first names
6. HICN only
7. Last name, phonetic coding (soundex) of first name, date of birth
8. Last name, phonetic coding (soundex) of first name, ZIP code, month OR year of birth

Some corrections were made to address incomplete or inaccurate HICNs, misspelled names, partial birth dates, incorrect geographical location, and other obviously incorrect beneficiary data.

The dataset was then limited to only those enrolled or screened on or before June 30, 2017. The final dataset contained 5,022 beneficiaries (MCCM enrollees and non-enrollees). Of these, 1,092 enrolled in MCCM between January 1, 2016 and June 30, 2017: this is the *MCCM ever-enrolled beneficiaries – cohort 1* population described in Appendix A, Section A.1.

A.5 Construction of Quantitative Measures

This section explains the outcome variables and covariates that we used to address research questions throughout the report; they are constructed from administrative data sources, including the MCCM portal.

A.5.1 Hospice Characteristics

In this report, we describe the hospices that volunteered for MCCM (see Appendix E Exhibit E.1), and how cohort 1, cohort 2, and all other non-participating hospices differ with respect to organizational characteristics and delivery of services. These characteristics are discussed in Section 2.2.1 of the main report and in Appendix E.2.1. Measure specifications appear below in Exhibit A.1.

[92] More information on the soundex phonetic coding system can be found at https://www.archives.gov/research/census/soundex.html.

Exhibit A.1: Hospice Characteristics

Measure	Source	Measure Specification
Ownership	Provider of Services file	Categorical (Non-profit, for-profit, government, other) Indicates the ownership type of the hospice provider. Variable name: GNRL_CNTL_TYPE_CD Ownership type codes used to construct categories for analysis, as shown: • Non-profit 01=Voluntary non-profit – Church (non-profit) 02=Voluntary non-profit – Private (non-profit) 03=Voluntary non-profit – Other (non-profit) • For-profit 04=Proprietary – Individual (for-profit) 05=Proprietary – Partnership (for-profit) 06=Proprietary – Corporation (for-profit) 07=Proprietary – Other (for-profit) • Government 08=Government – State (government) 09=Government – County (government) 10=Government – City (government) 11=Government – City-County (government) 12=Combination of Government & non-profit (government) • Other 13=Other
Census region	Provider of Services file	Categorical (Midwest, South, Northeast, West, other/unknown) Indicates Census region of the hospice based on Federal Information Processing Standard (FIPS) state code. Variable name: FIPS_STATE_CD FIPS state code is mapped to one of the below Census regions: • Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Wisconsin, South Dakota) • South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee) • Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania), Rhode Island, Vermont) • West (Arizona, Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Wyoming, Washington) • Other/Unknown FIPS to Census region crosswalk is available at https://www2.census.gov/programs-surveys/popest/geographies/2011/state-geocodes-v2011.xls

Measure	Source	Measure Specification
Size (Measured by routine home care days on Medicare hospice benefit)	Claims	Categorical (Small, medium, large) Number of routine home care days provided under the Medicare hospice benefit in fiscal year 2016 indicates the size of a hospice: small (up to 3,499 days), medium (3,500–19,999), and large (20,000+). Routine home care days are identified by revenue code 0651 on the hospice claim. Fiscal year data (instead of calendar year) is used as the Medicare hospice benefit sets payment by the fiscal year and size may be correlated with payment policy. https://www.federalregister.gov/documents/2017/08/04/2017-16294/medicare-program-fy-2018-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting
Age of hospice	Provider of Services file	Categorical (Founded in 1980s, founded in 1990s, founded in 2000s, founded in 2010s) Year in which the hospice first was approved to provide Medicare and/or Medicaid services. Variable name: ORGNL_PRTCPTN_DT
Location: Urban/rural	Provider of Services file	Categorical (Urban, rural) Indicates whether the county is defined as urban or rural. Variable name: CBSA_URBN_RRL_IND.
Facility type	Provider of Services file	Categorical (Freestanding, facility-based) Indicates the category-specific facility type code, for certain provider categories. Variable name: GNRL_FAC_TYPE_CD. The following categories are analyzed in this report: • Facility-based 01=Hospital (facility-based) 02=Skilled nursing facility (facility-based) 03=Nursing facility (facility-based) 04=Home health agency (facility-based) • Freestanding 05=Freestanding hospice
Religious affiliation	Provider of Services file	Dichotomous (Yes, no) Indicates whether the hospice has a religious affiliation. Variable name: CONTROL_TYPE = “01”
Chain affiliation	Consumer Assessment of Healthcare Providers and Systems (CAHPS)	Dichotomous (Yes, no) Indicates whether the hospice is part of a chain. Identification number distinguishes all hospices in a given chain.
Mean length of stay (in days) on Medicare hospice benefit in fiscal year 2016	Claims	Continuous (0 – max) Average length of stay for all beneficiaries enrolled in the Medicare hospice benefit during a defined time period of time. Calculated using enrollment and discharge dates on the hospice claim. Fiscal year data (instead of calendar year) is used as the Medicare hospice benefit sets payment by the fiscal year and length of stay may be correlated with payment policy.

Measure	Source	Measure Specification
Percent of beneficiaries enrolled in Medicare managed care plans prior to enrolling in Medicare hospice benefit	Master beneficiary summary file	Continuous (0.0% - 100.0%) Percentage of beneficiaries participating in Medicare managed care plans in the 30 days before enrolling in the Medicare hospice benefit. Variable name: HMOIND##

A.5.2 Market Characteristics

Market characteristics are presented in Section 2.1.5 for MCCM hospices participating in cohorts 1 and 2 and all other hospices. For this analysis, we used Dartmouth Atlas items that have already been calculated, as shown in Exhibit A.2, as opposed to characteristics we calculate ourselves from Medicare administrative data. The Dartmouth Atlas provides information on market characteristics for hospital referral regions nationwide.

As a rough estimate of market, defined as the area hospices enroll beneficiaries from, we assigned each hospice into a hospital referral region based on the ZIP code of their mailing address. Hospital referral regions can serve as a proxy for other types of healthcare related markets. We examined a subset of characteristics from the Dartmouth Atlas focused on healthcare utilization for all Medicare beneficiaries who died in 2014 and had Medicare Parts A and B coverage during their last two years of life.[93]

[93] More information can be found at http://www.dartmouthatlas.org/tools/faq/researchmethods.aspx

Exhibit A.2: Market Characteristics

Measure	Source	Measure Specification
Medicare spending per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="TOTAL_SPENDING_L2Y" Sum of the per decedent spending rates from the combined 100% sample files (MedPAR, home health agency, hospice and DME), the Part B file, and the outpatient file.
Skilled nursing facility/long-term care spending per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="SNFLS_SPENDING_L2Y" Sum of the per decedent spending rates from the 100% sample MedPAR files.
Hospice spending per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="HOSPICE_SPENDING_L2Y" Sum of the per decedent spending rates from the 100% sample hospice files.
Payments for physician visits per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="MDVISIT_PMTS_L2Y" Sum of the per decedent spending rates from the 100% sample Part B and outpatient files.
Home health agency spending per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="HOMEHEALTH_SPENDING_L2Y" Sum of the per decedent spending rates from the 100% sample home health agency files.
Physician visits per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="EVENTRATE_L6HD_PCT" All visits for which there was an evaluation & management claim in the Part B file. Visits occurring in federally qualified health centers and rural health centers, determined from the outpatient file, were also included.
Intensive care unit days per decedent during last two years of life	Dartmouth Atlas	Continuous (0 - max) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="L2YI_LOS_ASRIM_DV_RATE," Number of ICU days in the last two years of life divided by the number of Medicare enrollees ages 65–99 who died during the measurement year with full Part A entitlement and no managed care enrollment during the measurement period, adjusted for age, sex, and race.
Percentage of deaths occurring in hospital	Dartmouth Atlas	Continuous (0.0% - 100.0%) From the hrr_eolchronic_dead6699ffs Dartmouth Atlas file as identified by *eventname*="EVENTRATE_L6HD_PCT" Number of deaths occurring in a hospital (discharge status = 'B' in MedPAR file) divided by number of Medicare enrollees age 65-99 who died with full Part A entitlement and no managed care enrollment.

Descriptions of variables found in documentation provided by the Dartmouth Atlas, see:
http://www.dartmouthatlas.org/tools/faq/researchmethods.aspx

A.5.3 Beneficiary Characteristics

We use descriptive statistics about the three population groups described above in Section A.1 to summarize who enrolls in the model and to explore which characteristics are associated with MCCM outcomes of interest. We derived beneficiary characteristics primarily from the CCW Medicare enrollment database/Master beneficiary summary file and the MCCM portal, as specified in Exhibit A.3. These characteristics are discussed in Section 2.3 and in Appendix E.2.3.

Exhibit A.3: Beneficiary Characteristics

Measure	Source	Measure Specification
Age	Medicare enrollment database/Master beneficiary summary file	Categorical (0-64, 65–74, 75–84, and 85+) Age as of the date of enrollment, calculated as MCCM enrollment date less date of birth for MCCM enrollees and 6 months before death less date of birth for MCCM-eligible nationwide decedents. There are too few enrollees under age 65 (2.1% of enrollees to date are under 55) or over 85 (2.6% are 95 and older) to merit differentiating by age within those categories.)
Gender	Medicare enrollment database/Master beneficiary summary file	Categorical (Male, female) Gender of Medicare beneficiary.
Race & ethnicity	Medicare enrollment database/Master beneficiary summary file	Categorical (White, Black, Hispanic, other) Race/ethnicity of Medicare beneficiary.
Census region	Medicare enrollment database/Master beneficiary summary file	Categorical (South, Midwest, Northeast, West, other/unknown) Census region of Medicare beneficiary based on the beneficiary's mailing address. Categories used were: • South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee) • Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Wisconsin, South Dakota) • Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania), Rhode Island, Vermont) • West (Arizona, Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Wyoming, Washington) • Other/Unknown
Location: Urban/rural	Medicare enrollment database/Master beneficiary summary file	Categorical (Urban, rural) Identifies if the beneficiary was a resident of a county that was included in a core-based statistical area as defined by the Office of Management and Budget.
Dual eligibility	Medicare enrollment database/Master beneficiary summary file	Categorical (Yes, no) Identifies if the beneficiary is dually eligible for both Medicare and Medicaid.

Measure	Source	Measure Specification
Functional status	MCCM portal	Categorical (Independent, needs some assistance, dependent) Functional status of MCCM enrollee upon admission to MCCM.
Diagnosis & multimorbidity	Medicare enrollment database/Master beneficiary summary file and MCCM portal	Categorical (Cancer, congestive heart failure (CHF), chronic obstructive pulmonary disorder (COPD), and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS)) Qualifying diagnosis of the Medicare beneficiary for MCCM. • MCCM enrollees' qualifying diagnoses were obtained through the MCCM portal as we considered this the most accurate information regarding the beneficiary's condition at the time of admission into MCCM. The MCCM portal includes the diagnosis reported on the certificate of terminal illness signed by the beneficiary's physician for MCCM enrollment. • MCCM-eligible nationwide decedents do not have MCCM portal records. Therefore, to determine a diagnosis, we first calculated the date that was 6 months before death (to mimic the MCCM eligibility criteria for a 6 month prognosis), which we call the beneficiary's target date. Then, we examined Part A and B claims in the 12 months before the target date to identify qualifying diagnoses in any position on the claim. Using claims to determine MCCM qualifying diagnosis for the nationwide group means that these results may not be comparable to the diagnoses reported for MCCM enrollees in the MCCM portal. In future reports, we will explore the comparability of the diagnoses in more detail. Qualifying diagnoses are based on the following ICD-10-CM codes, as specified in the MCCM resource manual: HIV/AIDS: B20-B24 Cancer: C00.0-C96.9, C96Z, D03 CHF: I11.0, I13.0, I50.1-I50.43, I50.9 COPD: J43.0, J43.1, J43.2, J43.8, J43.9, J44.0, J44.1, J44.9, J47.0 J47.1, J47.9 Beneficiaries may have multiple diagnoses, which we arranged into multimorbidity categories. MCCM enrollees can have multiple qualifying diagnoses selected on the MCCM portal. MCCM-eligible nationwide decedents need only a single claim with a particular diagnosis to be grouped into that diagnosis. The order of categories within tables of results is related to the percentage of beneficiaries within each category and with the larger categories listed at the top of the table: • CHF • COPD • Cancer • COPD + CHF • Cancer + COPD • Cancer + COPD + CHF • All Other (including HIV/AIDS)
Comorbidities	Chronic Conditions Warehouse (CCW)	Categorical (Hypertension, hyperlipidemia, anemia, ischemic heart disease, and chronic kidney disease) The five most common comorbidities among MCCM enrollees, as measured by the percentage having each of the midyear chronic conditions flag in the CCW.

Measure	Source	Measure Specification
CMS Hierarchical condition categories (HCC) risk score	Medicare enrollment database/Master beneficiary summary file	Continuous (0 – max) The HCC risk score identifies beneficiaries with serious illnesses and assigns beneficiaries a score based on the health and demographics of the beneficiary.
Marital status	MCCM portal	Categorical (Married, widowed, divorced, never married, partner, declined to report) Indicates the beneficiary's marital status upon enrollment to MCCM.
Caregiver availability	MCCM portal	Categorical (Spouse, child/children, paid caregiver other than family member, other, no caregiver) Indicates the MCCM enrollee's primary caregiver.
Living arrangement	MCCM portal	Categorical (Patient lives with other person(s), patient lives alone) Indicates whether the MCCM enrollee lives with someone.

A.5.4 Reasons for Declining MCCM

The MCCM portal includes information reported by participating hospices on each screened beneficiary and, for those who did not enroll, reasons for declining MCCM, as discussed in Section 2.3. Beneficiaries who were referred but not screened are not recorded in the MCCM portal. Hospices can select a single response option for each beneficiary that declined MCCM. Response options include the following:

- Not ready for palliative care
- Declined care coordination
- Declined staff in home
- Other reason (free response text)

A.5.5 Reasons That MCCM Enrollees Leave MCCM

The MCCM portal includes information reported by participating hospices about each MCCM enrollee's reason for leaving the model, as discussed in Section 2.3. One of the following reasons is recorded for each enrollee:

- Elected the Medicare hospice benefit (MHB)
- Died
- Requested voluntary discharge from MCCM
- Moved out of hospice service area
- Resided in long-term nursing facility for more than 90 days
- Discharged for cause
- Transferred to another MCCM hospice
- Other reason (free response text)

A.5.6 Care Provided to MCCM Enrollees

We describe the care provided by MCCM hospices to model enrollees in Section 3.1 for the *MCCM decedents – cohort 1* and Appendix E in Exhibits E.10 through E.18 in Section E.3.1 for the *MCCM ever-enrolled beneficiaries – cohort 1*.

Care is reported by participating hospices in the MCCM portal as encounters and services.

Encounters

An **encounter** is defined as any recorded action by an individual MCCM provider, to or for an MCCM enrollee or caregiver/family member. Encounter records include location and mode of service delivery (the patient's home/residence, phone, facility bedside, mail/email, or Skype). Encounter records also identify the recipient (patient, family member, or caregiver (not family)) of the encounter; note that a single encounter can have more than one recipient (e.g., both the patient and the patient's caregiver).

Provider types that deliver MCCM care during an encounter can include the following:

- Care coordinator
- Nurse
- Social worker
- Aide
- Nurse practitioner
- Hospice physician
- Chaplain or spiritual counselor
- Bereavement counselor
- Nutritional counselor
- Therapist: Art, Massage, Music, Pet
- Pharmacist
- Volunteer

Monthly rates of encounters were calculated as follows: we first totaled each enrollee's recorded number of encounters and next divided that total by the person's length of MCCM enrollment in days. This produces a daily rate of encounters, which we multiplied by 30 to scale up to a monthly rate. The number of encounters used to calculate these rates were totaled overall and by MCCM provider type.

One caveat to this method is that the estimate is subject to the influence of outliers. An alternate calculation method would be to take the total number of encounters (e.g., 8,561 among *MCCM decedents – cohort 1*) and divide it by the total number of MCCM days of enrollment (37,908 among *MCCM decedents – cohort 1*) and again multiply by 30 to determine encounters/month (so for *MCCM decedents – cohort 1*, 30*8561/37908 = 6.8 encounters per month). However, the drawback of this alternate strategy is that the estimate is in aggregate, and does not allow us to tie back the monthly rates to individuals and their characteristics for analysis.

Quality of care during MCCM encounters are discussed in Section 3.1.3 and presented in Exhibit 3.8. We examine whether services provided during the encounter are indicative of high quality end-of-life care. In particular, we focus on whether the encounter included a depression screening, a pain screening, or a shortness of breath screening. We also consider whether the encounter included a comprehensive assessment. Comprehensive assessments in MCCM follow the same requirement as in MHB Conditions of Participation (42 CFR 418.54), in which the hospice must conduct and document a beneficiary-specific comprehensive assessment that identifies the patient's need for services, including physical, psychosocial, emotional, and spiritual care.

The version of the MCCM portal used for this analysis did not specifically identify a comprehensive assessment after the initial assessment. Therefore, we applied our team's clinical judgment to determine what encounters might include a comprehensive assessment. Timing of the assessment and the provider type are important and likely dictate when a comprehensive assessment would be appropriate. We labeled an encounter as a comprehensive assessment if all of the following conditions were met:

1. Provided by a care coordinator, RN/LPN, nurse practitioner, and/or hospice physician
2. Provided in-person or at facility bedside (not electronically)
3. Provided to the patient (not a family member or caregiver); and was conducted during an initial visit, or following a change in the patient's status, or following an ED visit/hospitalization

The MCCM portal includes a field indicating the date of an enrollee's initial comprehensive assessment (but only the initial assessment). If this date corresponded to an encounter date, we then determined whether the encounter on that initial comprehensive assessment date met the above criteria for being a comprehensive assessment.

For future reports we are exploring the inclusion of more extensive measures of quality, including treatment preferences, as well as advance care planning and spiritual concerns (which are included in this report in the services section). Our forthcoming work will be to develop measures and data specifications that would indicate the presence of high quality care.

Services

A **service** is defined as direct care or care coordination provided during an encounter. Multiple services may be provided during a single encounter with an MCCM hospice provider. Services are recorded in the MCCM portal as check boxes associated with each encounter – the person recording that encounter also checks one or more boxes to indicate the type of service provided during the encounter (again, note that a single encounter could include multiple services). Activity checkbox indicators for services performed during encounters were not *required* fields in the MCCM portal, so our estimate of 35,470 is an undercount: notably, there were no specific services recorded in 72 out of 8,561 encounters (slightly less than one percent).

Services include one or more of the following, during an encounter:

- Care management: Assess needs, discuss needs, follow-up, referral made, 1:1 consult with physician, 1:1 consult with non-physician
- Symptom management
- Family support, family conference
- Education
- Advance care planning
- Transitional planning
- Spiritual support
- Medication administration
- Wound care
- Volunteer companionship

Length of Enrollment in MCCM

Length of enrollment was calculated as the date of discharge minus the date of MCCM enrollment plus one (so that a person discharged on their admission day would have an enrollment of one day, a person discharged the day after their enrollment day would have an enrollment length of two days, etc.).

A.5.7 Medicare Utilization at the End of Life

We calculated beneficiary-level utilization rates for various services (see Exhibit A.4), received by *MCCM decedents – cohort 1* during their last 30, 90, 180, and 365 days of life. These measures are discussed in Section 3.2 for the last 90 days of life, and for all time periods in Appendix E, Section E.3.2.

Exhibit A.4: Medicare Utilization Categories

Measure	Source	Measure Specification
Inpatient admissions	Claims	Continuous (0 – max) Number of inpatient claims. If an observational stay and/or emergency department visit results in an inpatient admission, that inpatient admission is included.
Intensive care unit (ICU) admissions	Claims	Continuous (0 – max) Number of inpatient claims with revenue center code 0200, 0201, 0202, 0203, 0204, 0207, 0208, or 0209.
Inpatient 30-day readmissions	Claims	Continuous (0 – max) Number of readmissions in inpatient claims. A readmission is a subsequent inpatient stay (with clinical cause for admission; i.e., excluding claims for specific categories such as observational stays) within 30 days of a prior inpatient discharge. We do not restrict readmissions to the shorter, 7-day, period used in some models because the 30-day readmissions within 7 days are more likely related to the hospital's care than the hospice.
Emergency department visits	Claims	Continuous (0 – max) Number of Part A and B claims with revenue center code 0450, 0451, 0452, 0456, 0459, 0760, 0762. This number represents the number of emergency department visits (note: does not include observational stays – these will be presented separately in future reports).
Evaluation & management visits	Claims	Continuous (0 – max) Number of Part A and B claims with HCPCS codes that are under the category of Evaluation & management codes (99201– 99499). This number represents the number of evaluation & management visits.
Home health visits (%)	Claims	Continuous (0 – max) Percentage of beneficiaries with at least one home health claim during a certain number of days before death. The through date on the home health claim is used to determine when the home health episode occurred relative to death.
Ambulance services	Claims	Continuous (0 – max) Number of Part A and B claims with the following HCPCS codes: A0426, A0427, A0428, A0429, and A0999. This number represents the number of ambulance services.

A.5.8 Medicare Expenditures at the End of Life

Medicare expenditures are defined as Medicare payments, excluding beneficiary contributions (i.e., beneficiary copayments and deductible). We calculated per-enrollee Medicare expenditures for the *MCCM decedents – cohort 1* overall and by claim type in their last 30, 90, 180, and 365 days of life. Expenditures are based on data from Parts A and B, as detailed in Exhibit A.5. These measures are discussed in Section 3.2 for the last 90 days of life, and for all time periods in Appendix E, Section E.3.2.

Exhibit A.5: Medicare Expenditure Categories

Measure	Source	Measure Specification
Total	Claims	Continuous (0 – max) Total Medicare expenditures (Parts A and B) in the 30/90/180/365 days before death.
Inpatient	Claims	Continuous (0 – max) Inpatient expenditures in the 30/90/180/365 days before death.
Hospice	Claims	Continuous (0 – max) Hospice expenditures under the traditional Medicare hospice benefit as well as per beneficiary per month payments to hospices participating in MCCM in the 30/90/180/365 days before death.
Outpatient	Claims	Continuous (0 – max) Outpatient expenditures in the 30/90/180/365 days before death.
Physician/supplier Part B file	Claims	Continuous (0 – max) Physician/supplier Part B expenditures in the 30/90/180/365 days before death.
Home health	Claims	Continuous (0 – max) Home health expenditures in the 30/90/180/365 days before death.
Skilled nursing facility (SNF)	Claims	Continuous (0 – max) SNF expenditures in the 30/90/180/365 days before death.
Durable medical equipment (DME)	Claims	Continuous (0 – max) DME expenditures in the 30/90/180/365 days before death.

A.5.9 Home Health Care Overlap with MCCM Services

An important focus of the evaluation is to understand the other Medicare services beneficiaries use while enrolled in MCCM, including potential overlap with services such as home health, as discussed in Section 3.2.3. We present findings for *MCCM decedents – cohort 1*, consistent with our analysis of other measures of Medicare utilization at the end of life. We used the codes indicated in Exhibit A.6 to determine the discipline of providers delivering home health care.

Exhibit A.6: Type of Home Health Discipline

Measure	Source	Measure Specification
Skilled nursing	Claims	Revenue Code 055x
Physical therapy	Claims	Revenue Code 042x
Occupational therapy	Claims	Revenue Code 043x
Home health aide	Claims	Revenue Code 057x
Speech therapy	Claims	Revenue Code 044x
Medical social services	Claims	Revenue Code 056x

Exhibit 3.13 of Section 3.2.3 shows information on the distribution of home health visits by the discipline (e.g. skilled nursing) providing the visit. Home health agencies record the calendar date of home health visits on home health claims. We compared those dates to MCCM enrollment dates so that we only counted visits that occurred after MCCM enrollment. We aggregated visits by calendar month.

Exhibit 3.14 of Section 3.2.3 shows information on the receipt of home health services relative to MCCM enrollment. We examined four categories: home health services before and after MCCM enrollment, home health services only before MCCM enrollment, home health services only after MCCM enrollment, and never used home health services. To place MCCM enrollees into one of those mutually exclusive categories, we looked for the presence of at least one home health visit that occurred before and/or after MCCM enrollment.

A.5.10 Referrals to MCCM, by Type of Referring Provider

We describe the types of providers referring beneficiaries to MCCM in Section 4.3.1 of the main report for *MCCM decedents – cohort 1*. The results of this analysis are also presented in Appendix E Section E.4.3 in Exhibits E.23 through E.26 for *MCCM ever-enrolled beneficiaries – cohort 1*.

Information on referring providers is available in the MCCM portal only for beneficiaries who actually enrolled in MCCM, not for all referrals. For this reason, our analysis was limited to MCCM enrollees, only. We used the National Provider Identifier (NPI) that had been entered in the MCCM portal to determine the specialty of the referring provider, as described below under *Referring Physician Specialty*.

We do not rely exclusively on the MCCM portal to analyze MCCM referral patterns, however, because nurses and social workers (whose information is not recorded in the MCCM portal) often play a key role in referrals by raising and discussing end-of-life care with patients and their families.[94] Physicians see patients during a hospital stay, but the hospital clinical staff may discuss end-of-life care with a beneficiary and/or caregiver and trigger the decision to enroll in MCCM—interactions that the MCCM portal does not capture. We therefore attributed a beneficiary's referral to MCCM to one of seven provider types based on a claims analysis of services the beneficiary received before MCCM entry, as described below under *Provider Referral Attribution*.

Provider Referral Attribution

MCCM success relies, in part, on community providers referring patients to participating hospices, especially those providers treating the MCCM beneficiaries in the days and weeks prior to MCCM enrollment. All types of providers can refer patients to MCCM. We assumed that if a beneficiary had an inpatient, SNF, HHA, ED claim, or observational stay in the seven days before enrolling in MCCM, then that health care provider was likely instrumental in referring the beneficiary to MCCM.[95]

For beneficiaries who did not have a utilization event that could be tied to a facility, we identified the last physician, nurse practitioner, or physician's assistant who submitted a claim for an office visit in the 120 days prior to MCCM enrollment, by Berenson-Eggers Type of Service (BETOS)[96] and physician specialty. Specifically, we attributed beneficiaries to a referring health care provider or physician group (identified by NPIs and/or Tax Identification Numbers (TINs)) using claims submitted prior to the beneficiary's enrollment into MCCM. We attributed the beneficiary to a provider based on the TIN of the physician group (affiliated with the physician appearing on the patient's most recent evaluation and management (E&M) physician/supplier Part B claim within 120 days before enrollment into MCCM. If there were multiple E&M claims on that most recent date, we used a hierarchy to select one, as follows:

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94 McGorty EK, Bornstein BH. (2003). Barriers to physicians' decisions to discuss hospice: insights gained from the United States hospice model. *Journal of Evaluation in Clinical Practice, 9(3),* 363-372.

95 In the case where a patient has claims from across multiple service types in the last seven days. e.g., there is an inpatient and SNF claim, we apply the following hierarchy to determine which provider is most important: (1) inpatient, (2) SNF, (3) home health, and (4) emergency department. Therefore, if there is both an inpatient and SNF claim in the last seven days before enrollment in MCCM, the attributed provider is designated as inpatient.

96 BETOS codes are assigned to groups of HCPCS codes to help understand Medicare expenditures. For more information see, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareFeeforSvcPartsAB/Downloads/BETOSDescCodes.pdf

- Office visit, established patient (BETOS="M1B")
- Office visit, new patient (BETOS="M1A")
- Nursing home (BETOS="M4B")
- Home Visit (BETOS="M4A")
- Consultation (BETOS="M6")[97]
- Other specialists (BETOS="M5D")[98]

We assumed that certain healthcare professionals or physician specialties may be unlikely to refer beneficiaries to MCCM. We therefore excluded from the analysis beneficiaries who were attributed (using the logic above) to physicians or other providers with the following specialties/qualifications: dermatology (7), ophthalmology (18), oral surgery, dentistry only (17), chiropractic (35), optometry (41), certified nurse midwife (42), certified registered nurse anesthetist (43), podiatry (48), portable X-ray supplier (63), audiologist (64), physical therapist in private practice (65), occupational therapist in private practice (67), clinical lab (69), mass immunizer roster biller (73), all other suppliers (87), and certified clinical nurse specialist (89).

Using this algorithm, we developed five categories for potential referral to which beneficiaries could be attributed based on prior utilization:

- Physicians
- Inpatient hospital
- Emergency department
- Skilled nursing facility
- Home health agency

Separately, using the referring physician's NPI as recorded on the MCCM portal, we determined the number of physicians that referred only one patient, two patients, three patients, etc., for MCCM. This allowed us to determine whether MCCM referrals come from many physicians (each making a few referrals), or are more concentrated among a few physicians (each making many referrals).

Referring Physician Specialty

Using information from the MCCM portal, we also obtained the specialty type of the physician who had referred the patient to MCCM, which we used to tabulate the most common specialties of all MCCM-referring physicians. The possible physician specialty options are:

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97 This category includes telehealth consultation, as well as emergency department or initial inpatient communication with the patient via telehealth.

98 Codes that could be listed under M5D can be quite diverse and could include neurologic screening, behavioral health assessment, and cataract surgery.

- Oncology
- Internal medicine
- Family practice medicine
- Cardiology
- Pulmonology
- Palliative care
- Hematology
- Other (gastroenterology, gynecology, neurology, pain management, radiology, urology, and other specialist – additional MCCM portal options were endocrinology, immunology, and infectious disease, but no referrals were made from these three specialties among *MCCM decedents – cohort 1*)

A.5.11 Transitions from MCCM to MHB

We used the measures specified in Exhibit A.7 to calculate the percentage of *MCCM decedents – cohort 1* who transitioned to MHB, and their time (in days) from MCCM enrollment to MHB transition, and days from MHB entry until death. These findings are reported in Section 6.1 and in Appendix E.6.1.

Exhibit A.7: Calculation of MCCM and Medicare Hospice Benefit Survival and Duration

Measure	Source	Measure Specification
Survival after enrollment in MCCM to death	MCCM portal and Medicare enrollment database/Master beneficiary summary file	Continuous (0 – max) Days from date of enrollment in MCCM to date of death.
Duration from MCCM enrollment to Medicare hospice benefit transition	MCCM portal and Medicare enrollment database/Master beneficiary summary file	Continuous (0 – max) Days from date of enrollment in MCCM to date of enrollment in the Medicare hospice benefit.
Duration from Medicare hospice benefit enrollment to death	MCCM portal and Medicare enrollment database/Master beneficiary summary file	Continuous (0 – max) Days from date of enrollment in Medicare hospice benefit to date of death.
Number of days using Medicare hospice benefit after transition from MCCM	MCCM portal and Medicare enrollment database/Master beneficiary summary file	Continuous (0 – max) Days from date of enrollment in MHB (discharge from MCCM to Medicare hospice benefit) to date of death, less any days the beneficiary had left the hospice benefit and possibly (or not) returned to hospice.

Technical Appendix B: MCCM Evaluation Research Questions

Exhibit B.1 below presents the research questions that form the basis of the MCCM evaluation. This report covers a subset of these questions, as outlined in Exhibit 1.4.

Exhibit B.1: MCCM Evaluation Research Questions

Research Domain	Question
Implementation effectiveness	1. Describe the characteristics of beneficiaries enrolled in the model, the participating hospices, and their markets.
	2. What are the reasons for beneficiary participation or non-participation?
	3. Are there any factors that limited the number of beneficiaries enrolled in the model? If so, to what degree?
	4. What are the characteristics of those beneficiaries and hospices that withdrew from the model, and why did they leave?
	5. What are the elements of care delivered under this model?
	6. How long did it take to implement the organizational changes necessary to deliver services?
	7. What referral patterns are observed?
	8. What costs do hospices incur in providing services, and beneficiaries incur in receiving services?
	9. What features of hospices' administration and structure account for the successes or failures of their implementation of the model?
	10. How effective were learning system activities in preparing hospices to succeed?
	11. What participant, provider, and beneficiary perceptions contribute to or hinder the success of this model?
	12. What unintended consequences are observed?
Utilization and costs	13. Do the beneficiaries in the model elect the Medicare or Medicaid hospice benefit at a higher rate and earlier in their disease?
	14. Do beneficiaries in the model have lower Medicare and Medicaid expenditures?
	15. Do beneficiaries in the model receive different patterns of supportive services and life-prolonging treatment?
	16. Do the beneficiaries in the model have greater access to curative services, including medications?
Quality of care and health outcomes	17. Do beneficiaries in the model have better health outcomes?
	18. Do beneficiaries in the model receive better quality of care and experience higher quality of life?
	19. Do beneficiaries in the model and their families express greater satisfaction and improved experiences with their care?

Technical Appendix C: Qualitative Data Collection and Analysis

Many of the evaluation's research questions, especially those relating to implementation effectiveness and beneficiary and provider satisfaction with MCCM, cannot be answered using administrative data. Technical Appendix B describes the qualitative data we collected and analyzed; Appendix C describes survey data collection and analysis. All primary data collection was reviewed and approved by the Abt Associates Institutional Review Board (IRB).

Qualitative data described below includes case study interviews, interviews with hospices that withdrew from MCCM, and interviews with cohort 1 hospices that had low enrollment. This appendix describes the methodology used for these interviews, as well as the analytic techniques used to code data and identify emerging themes.

Appendix G provides a summary of the high-level themes that emerged from the first year of qualitative data collection. These themes should be considered preliminary, as they are based on 10 case studies. Qualitative research is intended to add context based on first-hand experience in the model, not to be representative of all participating hospices, clinicians, or beneficiaries. The themes emerging from qualitative research and described in this report reflect early experiences with the model; additional qualitative research in future years will illuminate changing experiences and lessons learned as the model progresses.

Exhibit C.1 presents the number of interviews from which we drew information for this report, and the primary goal of each data collection activity.

Exhibit C.1: Number and Purpose of Qualitative Data Collection Activities during Year 1 of the MCCM Evaluation

Activity	Number Conducted in Year 1	Goals
Cohort 1 hospice case studies (in-person)	10	Gather front-line qualitative information on the implementation of MCCM and the impact MCCM may be having within the local context of the specific hospice and beneficiary population.
Cohort 2 hospice case studies (telephone)	8	Discuss the hospice's planning for MCCM implementation, including their current staffing and services offered.
Interviews with hospices having low enrollment	6	Explore the barriers the hospice is facing enrolling beneficiaries in MCCM, including whether there are programs available in the service area that may be conflicting with MCCM eligibility requirements.
Interviews with hospices that withdrew from MCCM	18	Understand the circumstances and experiences that led the hospice to withdraw from MCCM, including lessons learned or suggested programmatic changes that might improve the MCCM experience for remaining hospices participating in the model.

C.1 Case Studies

Information in this report was collected during 10 in-person case studies with cohort 1 hospices, and telephone interviews with eight cohort 2 hospices. Exhibit C.2 below presents an overview of each type of data collection included in these case studies (e.g., in-person visits, in-person interviews, or telephone interviews). For each type of interview, we developed discussion protocols that our researchers followed

when conducting semi-structured interviews. Discussion protocols were based on the MCCM evaluation research questions, and were informed by review of MCCM documents and MCCM portal information. Multiple team members, including clinicians, reviewed each discussion protocol, and the Centers for Medicare & Medicaid Services (CMS) approved the protocols before interviewers were trained and data collection began.

Exhibit C.2: Case Study Data Collection

Stakeholder Group	Mode of Data Collection	Details	Number
Hospice clinical and non-clinical staff	In-person visits lasting 1–2 days	Interviews with a variety of staff depending upon the size and complexity of the hospice, including: • Hospice executive team • MCCM director • Care coordinators • Hospice physicians/PA/NP • Marketers • RNs/LPNs • Nurse aides • Social workers • Financial/billing staff • IT/data analytic staff • QAPI coordinator	Number of interviews was based on hospice size and structure of hospice visited
Providers who referred at least two beneficiaries who subsequently enrolled in MCCM	In-person or telephone interviews lasting 30 minutes	Interviews with 1–2 providers referring beneficiaries to each of the 10 cohort 1 hospices selected for a case study	Up to two referring providers per site visit, for approximately 20 referral source interviews per year
Beneficiaries and/or their caregivers enrolled in the model	In-person or telephone interviews lasting 30 minutes	Interviews with up to three beneficiaries and/or their caregivers enrolled in the model, at each of the 10 cohort 1 hospices selected for a case study	Up to three per site visit for an anticipated total of 30 beneficiary interviews per year
Hospices that withdrew from the model	Telephone interviews lasting 60–90 minutes with every hospice that withdrew from the model	Hospices were contacted approximately 90 days after they notified CMS of their intention to withdraw from the model.	Ongoing, based on hospice decisions to withdrawal
Cohort 1 hospices with low enrollment	Telephone interviews lasting 60–90 minutes	Interviews with the leadership at hospices that enrolled fewer than three MCCM beneficiaries as of May 2017, to explore barriers to enrollment	Seven in year 1 only

C.1.1 Case Study Site Selection

Over the course of the evaluation, we plan to conduct 56 site visits to 44 hospices participating in MCCM, split between cohort 1 and cohort 2 hospices, as shown in Exhibit C.3 below, some in person and some via telephone. For example, in the first year of data collection, cohort 2 hospices had not yet begun providing services under the model and telephone interviews were sufficient to understand their preparations and plans for the model.

Conducting case studies with both cohorts of participants will allow us to evaluate maturation of the model at different points in time. We also plan to conduct follow-up data collection with a subset of the hospices we visit, to learn about changes over time, and evaluate how the hospices are planning for sustainability after the model ends.

Exhibit C.3: Distribution of Case Studies

Year 1 March–September 2017	Year 2 March–September 2018	Year 3 March–September 2019	Year 4 October 2019–June 2020
18 case studies: 10 cohort 1 (in person) 8 cohort 2 (via telephone)	14 case studies (all in person): 7 cohort 1 7 cohort 2	12 case studies (all in person): 6 cohort 1 (3 new, 3 repeat) 6 cohort 2 (3 new, 3 repeat)	12 case studies (all in person): 6 cohort 1 (3 new, 3 repeats) 6 cohort 2 (3 new, 3 repeats)

MCCM hospices we visited for this report were selected based on the selection criteria described below, to ensure variation on key characteristics, presented below in order of priority:

- **Early enrollment:** Long-term success of the model will depend on adequate enrollment, and understanding enrollment challenges is important for the evaluation. We selected hospices for case studies that had different levels of enrollment in their first year of providing MCCM services.
- **Ownership status**: We selected hospices for case studies to include variation in ownership, as defined by data in the Provider of Services (POS) files.
- **Geographic location**: We selected hospices that were geographically dispersed, and in a mix of urban and rural settings, to understand whether MCCM is implemented differently, or faces special challenges, in communities where cultural attitudes may be more or less accepting of hospice-like care.
- **Size:** We selected hospices of different sizes, defined as number of routine home care days provided in a year,[99] to understand whether MCCM is implemented differently in small versus larger organizations.
- **Case mix:** We selected hospices that serve different beneficiary populations, among the four MCCM target diagnoses, to understand whether MCCM encounters, services, referral sources, or other attributes vary depending on the primary population focus of the hospice.

To operationalize these criteria, we created a file containing each participating MCCM hospice that included information on each of the criteria outlined above. The case study team followed the criteria to select hospices, and CMS approved the final list for the year.

Exhibit C.4 presents high-level organizational characteristics of the cohort 1 and 2 hospices selected for case studies during the first year of the evaluation.

[99] https://www.federalregister.gov/documents/2017/08/04/2017-16294/medicare-program-fy-2018-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting

Exhibit C.4: Organizational Characteristics of Year 1 Case Study Hospices

	Cohort 1 Case Study Hospices (N=10)	Cohort 2 Case Study Hospices (N=8)
Profit status[1]	9 Non-profit 1 For-profit	5 Non-profit 3 For-profit
Facility type (e.g., free standing or hospital-based)[1]	6 Free standing 4 Hospital-based	7 Free standing 1 Hospital-based
Geographic location[2]	2 Northeast 4 Midwest 3 South 1 West	2 Northeast 2 Midwest 3 South 1 West
Rural or urban[2]	8 Urban 2 Rural	8 Urban
Hospice size[3]	2 Medium 8 Large	1 Medium 7 Large

[1] As reported by the hospice during the site visit, Year 1 of the evaluation.

[2] Urban/rural status and geographic location defined based on the census designation of the county of the hospice's primary address (in the Provider of Services file).

[3] Hospice size defined using the number of routine homecare days in FY16. Hospices with 0–3,499 routine homecare days are classified as small, 3,500–19,999 as medium, and 20,000+ as large. https://www.federalregister.gov/documents/2017/08/04/2017-16294/medicare-program-fy-2018-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting

C.1.2 Case Study Interviews

IRB Review for Case Study Interviews

The following information was submitted to the Abt Associates IRB for review and approval before we conducted case studies. CMS reviewed each of these materials before submission to the IRB.

- Letter of support signed by CMS providing additional detail about the evaluation and the various requests that hospices may receive for participation.
- Email to be sent from Abt Associates to hospices selected for case studies.
- Informed consent language for case study interviews, interviews with beneficiaries, interviews with physicians, and interviews with hospices that withdraw from the model.
- A matrix, replicated below in Exhibit C.6, presenting each type of stakeholder to be interviewed and the topics to be included in the interview. This summary matrix, rather than individual interview protocols, will be reviewed by Abt's IRB.
- A scheduling template that we asked each hospice to fill out with the names and roles of each person we were interviewing.

Interviews with Hospice Staff

We conducted in-person interviews with staff at participating hospices, during site visits lasting between one and two days depending upon the size and complexity of the hospice. The purpose of these interviews

was to gather qualitative information on the implementation of the model, and on the impact the model may be having within the local context of the specific hospice and the beneficiary population it serves.

We interviewed a diverse set of clinical and non-clinical staff at each hospice – from executive leaders to front-line care providers – to understand whether staff at all levels agreed, and how each perceived the model. Exhibit C.5 shows the types of individuals we interviewed during the 10 cohort 1 case studies this year.

Exhibit C.5: Interviews Conducted during 10 Cohort 1 Case Studies

Interviewee Roles	Number of Individuals Interviewed
Hospice leadership (CEO/president, executive leadership)	15
Finance staff/business director	15
Quality monitoring/quality assurance staff	11
Director of innovative programs	3
Clinical supervisor/educator	4
Director of nursing	2
Hospice physician/medical director	13
Referring provider	11
MCCM program coordinator/manager	5
Clinical care coordinator with multiple roles	1
Non-clinical care coordinator with multiple roles	2
Care coordination counselor/manager	8
Nurse navigator	3
Social worker	14
Nurses	5
Nurse practitioners/physician assistants	2
Hospice aides	10
Case manager (registered nurse)	3
Spiritual care counselor	1
Chaplain	2
Music therapist	1
Grief and volunteer service manager	1
Hospice admission/intake	3
Marketing/outreach	15
Human resources	1
IT manager/director	5
Data analytics and reporting	11
Beneficiaries	16
Total	183

Exhibit C.6 presents a matrix of the types of topics we discussed during interviews with both cohort 1 and cohort 2 hospices this year. The discussion protocols were tailored to an interviewee's position and responsibilities, and many topics were explored in multiple interviews to understand a topic from multiple perspectives.

Exhibit C.6: Hospice Staff Interview Topic Matrix

MCCM Research Question Number		Hospice Clinical and Non-clinical Staff									
		Executive team	MCCM director	Care coordinator	Physicians PAs NPs	Marketers	RNs & nurse aides	Social workers	Financial billing staff	Data analytics staff	QAPI coordinator
Market/Hospice Characteristics											
9	Characteristics of hospices participating in the model (e.g., size, payer mix, staffing, services offered)	✓	✓			✓			✓	✓	
9	Competitive marketplace	✓	✓			✓			✓	✓	
9	Experience in other alternative payment models (federal, state, private)	✓	✓						✓	✓	
9	Partnerships with health systems, home health agencies, nursing homes, etc.	✓	✓	✓		✓		✓	✓	✓	✓
1	Characteristics of the beneficiary population served (diagnosis mix, special populations served, racial/ethnic make-up, cultural influences that affect provision of hospice-like care)	✓	✓	✓	✓	✓	✓	✓			✓
7	Referral patterns	✓	✓	✓		✓		✓			
9	Use of technology	✓	✓		✓		✓	✓	✓	✓	
9	Data sharing with staff and across provider types	✓	✓	✓	✓		✓	✓	✓	✓	✓
MCCM Implementation											
2, 4, 9	Reasons for organizational and beneficiary participation in the model	✓	✓		✓	✓		✓			
	Marketing and coordination with referring physicians and beneficiaries	✓	✓	✓	✓	✓	✓	✓			
5, 6, 8	Delivery of MCCM services New services added to meet MCCM requirements Changes to staff workflow to meet model requirements Identification of needed services for MCCM enrollees Operation of or affiliation with a palliative care program	✓	✓		✓	✓	✓	✓			✓
5, 9	Care coordination across multiple providers	✓	✓	✓	✓	✓		✓			
8	Cost of providing MCCM services	✓	✓			✓			✓		
9	Staff hiring and training	✓	✓	✓	✓		✓		✓	✓	✓
3	Enrollment challenges and lessons learned	✓	✓	✓	✓	✓		✓	✓	✓	✓

MCCM Research Question Number		Hospice Clinical and Non-clinical Staff									
		Executive team	MCCM director	Care coordinator	Physicians PAs NPs	Marketers	RNs & nurse aides	Social workers	Financial billing staff	Data analytics staff	QAPI coordinator
9	Data collection and reporting	✓	✓	✓		✓		✓	✓	✓	✓
MCCM Effectiveness & Perception of Impact											
11	Provider satisfaction with the model		✓	✓	✓	✓	✓	✓			✓
19	Beneficiary satisfaction with services received		✓	✓	✓			✓			
10	Effectiveness of learning system activities	✓	✓					✓		✓	✓
14, 16, 17, 18	Perceived impact on: • Access to services • Medicare/Medicaid expenditures • Health outcomes • Quality of life at the end of life	✓	✓	✓	✓	✓	✓	✓	✓		✓
13	Transition to hospice/election of Medicare hospice benefit	✓	✓	✓	✓	✓		✓	✓		
Unintended Consequences/Spillover											
12	Potential unintended consequences Use of home health services Cost shifting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12	Spillover from similar models under private payers or Medicare advantage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Interviews with Referring Providers

In addition to interviewing hospice staff, during case studies we interviewed providers who had referred at least two beneficiaries who eventually enrolled in the model and received services from the MCCM hospice. We included the perspective of referral sources to understand how they perceive the benefits of the model, and to learn about their experience coordinating care with the hospice. In early case studies, we learned that referrals to MCCM can come from a variety of sources, including physician offices, hospital or skilled nursing facility discharge planners, social workers, or directly from potential enrollees or their caregivers.

During these interviews, we explored how referring providers learned about MCCM, how they talk about the benefits of the model with their patients, how they coordinate care with hospice staff (including medications and equipment), satisfaction with the care their patients received under the model, perceived impact of the model on quality of care, potential cost savings and health outcomes, and any potential unintended consequences of the model.

We interviewed providers specializing in the four MCCM diagnoses, including oncologists, cardiologists, infectious disease specialists, and pulmonologists. Using data from the MCCM portal, we identified physicians who referred more than two beneficiaries to the model who were subsequently enrolled.

Interviews with MCCM Enrollees and/or Caregivers

One of the key features of MCCM is the focus on person-centered care and shared decision-making between their physicians and the hospice about model services, and care coordination.

C.1.3 Case Study Process for In-Person Case Studies with Cohort 1 Hospices

Recruitment and Scheduling Logistics

The case study process requires several steps to introduce the concept to a selected hospice, schedule the visit including all appropriate interviews, conduct the visit, write a summary report, code data, and analyze emerging themes.

After CMS approved the list of selected hospices, and the IRB approved all data collection, we sent an initial outreach email to each hospice explaining that they had been selected for an evaluation case study. We then held a 30-minute telephone call with the primary points of contact at each hospice, to explain the case study and answer any questions, and to discuss logistics. After this call we sent each hospice a template listing the types (roles) of people we wished to interview, with a time in the schedule for each, and asked the point of contact to schedule the interviews for us. The hospices filled in the template and sent it back. We reviewed it to ensure that the schedule included everyone we hoped to interview, and finalized any changes with the hospice point of contact. Exhibit C.7 below displays the various tasks associated with setting up and conducting each case study; a timeline follows the exhibit.

Exhibit C.7: Case Study Process Overview

Case Study Tasks
• Identify and select MCCM hospices for case studies – Develop a sampling frame and sampling criteria for selecting hospices • Recruit selected hospices • Train all case study staff (two-day in-person training, with annual refreshers by webinar) • Develop NVivo codebook based on initial discussion protocols • Assemble background information for selected case study hospices, pulling from applications, implementation plans, quarterly reports submitted by the hospice, and other secondary data sources • Schedule and hold case study planning call with points of contact at each selected hospice (30 minutes for each planning call) • Confirm site visit dates with hospice • Prepare site visit package and work with hospice point of contact to schedule the visit – Prepare interview scheduling template to be filled in by primary point of contact at each hospice, to ensure that interviews are scheduled with the most relevant hospice staff – Tailor discussion protocols for each hospice, as needed • Make travel arrangements (travel, hotel, identify federal per diem rate, etc.) • Conduct case study (1–2 days on site) – If interviews with referring providers cannot be completed while on site, conduct telephone interviews • Summarize and analyze findings (2–3 weeks after returning from case study) – Case study team debrief and finalize interview notes after each site visit – Write summary report of case study – Brief CMS staff on important case study findings – Send summary reports to CMS in two batches per year (removing all hospice and personal identifiers) • Code case study reports and adapt NVivo codebook as needed • Analyze case study data across sites (annually) • Draft cross-case findings for each evaluation report

Case Study Data Collection Teams and Training

Case study interviews were conducted by health services researchers and clinicians who are familiar with MCCM and trained in qualitative interviewing techniques. For most case studies, three-person teams included a health services researcher, a clinician, and a dedicated note-taker.

Each case study team visiting a cohort 1 hospice this year spent one to two days interviewing hospice staff. Where possible, interviews with referring physicians and beneficiaries were also conducted while on site. For a few case studies, the case study team for a hospice visit conducted these interviews the following week, via telephone.

All case study and interview staff participated in a two-day training prior to the beginning of data collection. This training had two primary purposes: first, to ensure that all staff were well informed about MCCM and any recent programmatic changes, and second, to review each discussion protocol in detail and role-play interviewing for each protocol. The training was facilitated by senior project staff and supported by Abt's Qualitative Methods Center, which provides training in best practices for qualitative data collection and analysis.

Conducting Case Studies and Post-Visit Work

Prior to starting an interview, Abt researchers read aloud an informed consent script about the extent of confidentiality and anonymity the interviewee could expect, who would have access to the case study summary report, and how the information shared in the interview would be combined with that from many other interviews at many hospices for cross-case analysis. Each interviewee was asked for permission to audio-record the interview, and was assured that the recordings were for note-taking purposes only and would not be shared with the person's employer or with CMS.

While on site, the team met at the end of the first day of interviews to discuss themes from the day and identify any issues that need to be followed up on during the next day. After finishing all interviews, the team met to debrief and discuss the main themes and lessons learned. The note-taker who attended the visit finalized notes and sent them to other members of the team to review for completeness, after which the note-taker drafted a summary report that was also reviewed by the other team members and finalized. This summary report was the basis for coding the case study themes using NVivo software.

C.1.4 Telephone Case Studies with Cohort 2 Hospices

Case studies with cohort 2 hospices this year were conducted via telephone because these hospices had not yet begun implementing MCCM at the time of our interviews. We selected cohort 2 hospices for case studies using the same selection criteria as outlined above, with the exception of enrollment (since no cohort 2 hospice had yet begun enrolling into MCCM). Hospices were recruited using the same process as described above. Interviews were conducted by three-person teams – a health services researcher, a clinician, and a note taker – and were held with the staff at the hospice that were charged with planning and implementing MCCM. Hospice staff were interviewed as a group for between 90 minutes and two hours depending on the size of the group. Topics covered included those covered in Exhibit C.6 above, with the focus on what the hospices were planning to do for their MCCM implementation approach.

Notes from each interview were cleaned and reviewed by the other members of the team for completeness. The notes were then coded in NVivo and formed the basis for cross-hospice analyses included in this report.

C.2 Other Interviews

C.2.1 Hospices That Withdrew from MCCM

The MCCM Participation Agreement allows hospices to withdraw from the model at any time, after providing 90 days' written notice to CMS. The reasons for hospices' withdrawal may have important implications for program success and scalability. This information could also lead CMS to make programmatic changes to improve the effectiveness and impact of the model for those hospices that remain. We conducted telephone interviews with leaders from every hospice that withdrew from MCCM, to help us answer research question 4, *"What are the characteristics of those hospices that withdrew from the model and why did they leave?"*

There is a 90-day window between when a hospice notifies CMS of its withdrawal and the end of its participation. Per CMS instruction, we reached out to hospices at the end of the 90-day window for each, to schedule the interview. We interviewed the chief executive or other designated leaders at each hospice, for 30 to 45 minutes. We asked questions about the application and start-up phase, marketing the model in the community, enrolling beneficiaries, implementing the model and following its requirements, and about experiences using the MCCM portal, the value of CMS's learning and diffusion activities and

supports, and programmatic changes that might improve the experience for the remaining hospices. We also asked about programmatic changes that might lead the hospice to consider participation if the model were expanded in the future.

C.2.2 Hospices with Low MCCM Enrollment

An important element of evaluating model implementation is to understand challenges hospices encounter in enrolling beneficiaries into MCCM. Hospices enter some information in the MCCM portal about why beneficiaries who are referred to the program and screened ultimately do not enroll, but additional contextual information from the perspective of hospice staff is also valuable. We therefore interviewed leaders from cohort 1 hospices that had little or no enrollment, to help us answer research question 3, *"Are there any factors that limited the number of beneficiaries enrolled in the model, and to what degree?"*

Using enrollment data from April 2017, we identified the subset of hospices with very low enrollment, which we defined as fewer than three beneficiaries enrolled in MCCM. At the time of review, there were 24 cohort 1 hospices in this category. We selected seven of these hospices to interview by telephone to explore barriers to enrollment. We selected these seven hospices based on the following factors:

- **Ownership status**: We selected hospices having different ownership types, as defined by variables in the Medicare Provider of Services file.
- **Geographic location**: We interviewed hospices from different census regions, to understand why enrollment may lag in areas of the country where cultural attitudes may be less accepting of hospice-like care, and how the hospices tried to overcome these barriers.
- **Timing of enrollment** (where applicable): For hospices with at least one enrollee, we selected based on the timing of their first enrollee: some whose first enrollment happened relatively early and others whose first enrollment happened relatively later.
- **Engagement**: We categorized MCCM hospices based on the MCCM implementation contractor's monthly engagement reports, recognizing that some hospices that are fully engaged in the model may have low enrollment.

We interviewed each hospice's leaders, including the MCCM coordinator (if any) for approximately one hour. The primary purpose of the interview was to explore the challenges the hospice faced in enrolling beneficiaries. We also explored the following topics with the low-enrolling hospices:

- Other service lines offered by the hospice, including palliative care, and the beneficiary population served
- Market characteristics, including whether there are competing programs in the area such as the Program for All-inclusive Care of the Elderly (PACE) or Acute Illness Management programs
- The hospice's approach to marketing the MCCM model to providers and beneficiaries, including the response to these marketing efforts
- Whether specific MCCM eligibility requirements posed particular challenges or disqualified beneficiaries who would have otherwise been eligible to enroll

- Specific needs for technical assistance or questions about the model that CMS or its implementation contractor could address

As with our other case study interviews, we promised each interviewee anonymity to the extent possible. If specific needs or questions came up during interviews that the hospice wanted CMS to address, we encouraged them to reach out to their CMS project officers directly.

We conducted these interviews between June and September 2017. Findings were coding and analyzed for inclusion in this first annual report.

C.3 Qualitative Data Analysis

C.3.1 Codebook Development

All qualitative data collected through case studies and interviews was coded and analyzed using NVivo, a qualitative data analysis software package. The initial codebook was developed using deductive methods, based on the discussion protocols and evaluation research questions, and identified the relevant concepts, themes, and characteristics to code. After the first few case studies, researchers reviewed the case study notes and summary reports to identify other themes that emerged, and added these to the codebook (inductive identification of themes), and identified any codebook inconsistencies, redundancies, or imprecision. As new themes emerged from later case studies, the codebook was expanded. The process of adding and refining codes continued until no new themes were identified and the codebook was considered final for the year. In future years, the codebook will be enhanced to include additional relevant themes.

C.3.2 Coder Training and Inter-coder Reliability Checks

Three research assistants were trained to code qualitative data, with oversight from a senior qualitative researcher. They each coded the first two case study summary reports, and the senior researcher reviewed inter-rater reliability using Cohen kappa coefficients generated by NVivo's coding comparison query function. Inconsistencies were identified and coders retrained to clarify the definitions of each code and ensure that the coders understood both hospice operations and MCCM requirements. A third case study report was coded by the three coders, and this process was repeated until the Cohen kappa coefficient on inter-rater reliability was consistently above 0.80, which is generally recognized as "almost perfect agreement" in health-related research.[100] Thereafter, each of the remaining case study report was coded by one of the three coders.

Exhibit C.8 below presents the codebook used for case studies. A subset of these codes was also used for coding the interviews from withdrawn hospices and the interviews with hospices that had low enrollment.

[100] Marston, L. Introductory Statistics for Health and Nursing Using SPSS. 2010. Thousand Oaks, CA: Sage Publications, Ltd.

Exhibit C.8: Codebook for Qualitative Data Analysis

Main Codes	Subsidiary Codes	Definition
Hospice characteristics†,♦	Ownership type	Code here whether the hospice is freestanding or owned by a health system.
	Services provided	Code here if the hospice provides home health, palliative care, or other services, other than traditional hospice.
	Beneficiary population being served	Code here the demographics, socioeconomic status, etc. of the beneficiaries the hospice serves.
	Type of payers for population served	Code here the distribution of payer type among the hospice's beneficiaries.
	Geographic service area	Code here if the hospice is offering MCCM in all the same geographic areas where it offers hospice care, or if there are certain geographic areas that they are targeting for MCCM. This would also include any broader discussions of where the hospice offers any of its services.
Competitive marketplace†,♦	N/A	Code here information about the market in which the hospice operates, including whether there are many hospices, whether any of them are also participating in MCCM, etc.
Overlapping models†,♦	N/A	Code here any discussion about the hospice's experience with other care or payment model initiatives. This might include whether they are a part of an accountable care organization (ACO), if they have any commercial insurers with similar programs, or whether there are any OCM-participating oncology practices in the area that they are working with.
MCCM entry†,♦	N/A	How the hospice made entry decisions, the data that they used to help them make this decision, their prior experience with payment reform or value-based purchasing that might have driven the decision, and who was involved in the entry decision.
MCCM implementation	Barriers to implementation	Code here anything that seems to be a barrier to implementing MCCM. Note that ANYTHING coded to this node must also be double-coded to the specific implementation element below.
	Facilitators for implementation	Code here anything that seems to be working well to facilitate implementing MCCM. Note that ANYTHING coded to this node must also be double-coded to the specific implementation element below.
	Changes in implementation over time	Code changes to how things have been done over time. If the discussion includes any of the other elements of implementation, please be sure to double-code.
	Referral networks†,♦	Code here any discussions of the hospice's general relationship with referral sources. This might be relationships with health systems that send a lot of beneficiaries their way, specific referral programs with palliative care programs, community-based physicians, etc.
	MCCM marketing and beneficiary identification†,♦	Code here discussions about how the hospice is marketing the program to referral sources to try to identify beneficiaries who are eligible. This might include how they are identifying eligible beneficiaries, and whether they are targeting referring physicians/hospitals/etc. as referral sources. This would include discussions about marketing to referral sources, whether they are doing any direct-to-beneficiary education, etc.

Main Codes	Subsidiary Codes	Definition
MCCM implementation *(continued)*	Confirming eligibility for MCCM	Code here discussions about how the hospice is confirming that a beneficiary meets the eligibility criteria to be part of the model. This would include how they confirm the various eligibility criteria, the role of the medical director in the enrollment process, and any challenges or barriers that the hospice is encountering when it comes to eligibility criteria.
	Staffing for MCCM†,♦	Code here discussions about how the hospice has staffed its MCCM model. This includes new hires to meet model requirements. If the discussion includes elements of training, please be sure to double-code. This would also include reassignment of existing staff to MCCM or other workflow changes.
	Training for MCCM	Code mentions of staff training, including changes to the organization's orientation/onboarding process.
	Delivery of MCCM services†,♦	Code here discussions of how the hospice is delivering services under MCCM, including whether they are doing in-person or telephonic visits, how they assess a beneficiary's needs, the creation of care plans, etc.
	Role of palliative care teams	Code here any discussion of involvement with a palliative care team in MCCM. This might be related to referrals of beneficiaries to MCCM, or concurrent treatment of MCCM beneficiaries by a palliative care service. The palliative care service could be hospital-based or employed by the hospice. The important thing that we are trying to keep track of is how many MCCM hospices have some kind of overlap with a palliative care service.
	Care coordination across multiple providers†,♦	Code discussions of how the hospice is approaching the requirement to coordinate all of the care an MCCM enrollee is receiving. This should include the mechanics of care coordination (e.g., who does what) more than the impact that care coordination might have on health outcomes or Medicare expenditures.
	Use of technology for MCCM	Code discussions of the hospice's use of technology, including an EHR, in their implementation of MCCM. This might include whether they had to adopt any new technologies for MCCM. If the discussion also includes how the EHRs are integrated in other aspects of their MCCM implementation, please be sure to double-code.
	Experience with MCCM portal†	Code here discussions of the hospice's experience with the MCCM portal. This might include who is uploading the data, what kinds of encounters they are entering in the portal, and any suggestions to changes in the portal.
	24/7 Access	Code discussions about how the hospice provides 24/7 access for MCCM beneficiaries. This should include whether they would send someone out to do an in-person visit after hours, or send those beneficiaries to the ED. Also include how the hospice is educating the beneficiary about 24/7 access.
	Financial monitoring and billing†,♦	Code here whether the hospice is specifically tracking the financial impact of participating in MCCM. This would also include any challenges or barriers they have encountered with billing for MCCM claims.
	Suggested changes to the model†,♦	Code here suggestions from the hospice on how to change the model structure and requirements. This might include changes to the eligibility criteria, billing suggestions, etc.

Main Codes	Subsidiary Codes	Definition
MCCM implementation *(continued)*	Barriers to enrollment†,♦	Code here information on the primary barriers to enrolling beneficiaries in MCCM. Should likely be double-coded to "Suggested changes to the model," but we would like to be able to pull this information out easily in a query.
	Participation in learning system activities†,♦	Code here the hospice's experiences with learning system activities, including webinars, and technical assistance received from the implementation contractor.
Quality monitoring for MCCM	N/A	Code here discussions of how the hospice is doing routine quality monitoring for MCCM. This should include whether they are tracking MCCM enrollees separately for QAPI, whether they have dedicated staff for MCCM QAPI, and whether they have any performance improvement projects for MCCM specifically.
Perception of impact†,♦	Transition to hospice	Code here discussions about MCCM enrollees' transitions to hospice. This might involve the percentage of MCCM enrollees that have made this transition and how the hospice approaches the transition.
	Health outcomes/quality	Code discussions of how the hospice sees MCCM impacting enrollee health outcomes and quality of care.
	Opportunities to reduce Medicare expenditures	Code here discussions of how the hospice sees MCCM saving Medicare money.
	Health care utilization	Code discussions of how the hospice sees MCCM impacting use of health care services. This includes changes in: ED use, hospitalizations, ICU use, aggressive treatment in the last two weeks of life, etc.
	Beneficiary/caregiver satisfaction	Code discussions here of how MCCM might be impacting beneficiary/caregiver satisfaction with the care they are receiving for their illness from both the hospice and any other providers. This would include the beneficiary's perspective on the care he or she is receiving.
	Provider satisfaction	Code discussions here of how MCCM might be impacting clinician/staff satisfaction at both the hospice and referring clinicians. This would include what we learn from referring physicians about their opinion of the program.
	Financial impact on the hospice of MCCM participation	Code here information on the financial impact of model participation on the hospice itself. This is separate from "Financial monitoring and billing."
Sustainability and spread	N/A	Code discussions of program sustainability or spread to this node. This might include the resources needed to sustain the program at the hospice, including the staff's thoughts on whether the amount of the monthly per beneficiary per month payment needs to be adjusted.
Unintended consequences†,♦	NA	Code discussions here of potential unintended consequences of MCCM.
Memorable quotes†,♦	N/A	Code memorable quotes that could be used to illustrate a point in one of our cross-case reports.

Note: All codes were used in coding case study reports. The following symbols indicate the subset of codes used in coding the withdrawn (†) and low enrollment (♦) hospice interviews.

C.3.3 Qualitative Data Analysis and Reporting

After each case study, Abt prepared a case study summary report. These reports were de-identified before they were submitted to CMS: reports do not mention the name of the hospice or of any interviewee. We submitted the case study summary reports to CMS in two batches during the first data collection year, to limit re-identification of the hospices by CMS.

Each case study summary report was coded in NVivo, as described above. To complete the analysis for this report, we ran NVivo reports for key areas of interest to identify themes and subthemes across hospices and interviewees. Data were analyzed by aggregating at the theme level, and results were compared across hospices to understand the range of opinions and experiences.

The notes from withdrawn and low enrollment hospice interviews were also coded in NVivo using a subset of the codebook presented above in Exhibit C.8.

C.4 Interview Protocols

C.4.1 Case Study Protocols

Medicare Care Choices Model Evaluation
Interview Protocol: Hospice Executive Leadership/MCCM Director

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe the hospice:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Does the hospice provide any specialized services (e.g., ventilator care, special services, home health, palliative care)?
  - Does the hospice provide care in the nursing home setting?
  - Has the hospice recently merged with another hospice, or provider organization, or undergone a significant expansion? Do you anticipate any mergers or expansions in the foreseeable future?
  - What proportion of the (traditional) hospice patients are Medicare beneficiaries/private pay/Medicaid patients?

- Please briefly describe your staff:
  - Does the hospice organization employ physicians? If so, how many and what are their roles (e.g., medical director, direct care provider)?
  - Does the hospice utilize nurse practitioners/physician assistants?
  - Other interdisciplinary team members (i.e. nurses, LPNs, social workers, chaplains, volunteer coordinator, bereavement coordinator)?
  - Does the hospice use volunteers to provide services to patients enrolled in MCCM? If so, what services do they provide?

- Does the hospice have dedicated care coordinators?
  - If so, has the hospice always had dedicated care coordinators or is this a new role for MCCM?
  - What are the qualifications/training of the person in this role?

- What is the average annual number of traditional hospices patients your hospice serves and what is their average length of stay?
  - How many MCCM patients has your hospice enrolled (or expect to enroll) annually?
  - To date, what is the average length of time that MCCM patients stay in the program before transitioning to traditional hospice, dying, or withdrawing from the program?

Competitive marketplace

- How would you describe the local health care market in which your hospice operates?
  - How many hospitals, home health agencies, and nursing homes, serve your area?
  - How competitive is the hospice market?

- Are you aware of other local hospices that are participating in MCCM? If so, have you had any interaction with them?

- Have you noticed shifts in the local market for hospice care in recent years (e.g., more hospices entering the market, hospices closing, mergers, or a shift toward for-profit providers) or changes in referral patents to hospice?

- How widespread is managed care in this area?
  - What percentage of your hospice patients are covered by Medicare Advantage plans?
  - How common is participation in Medicare Advantage among your patients? Do any of the Medicare Advantage plans that your patients are enrolled in operate a model similar to MCCM?

Experience in and overlap with other alternative payment models

- Is your hospice participating in other payment or care delivery reform initiatives that might overlap with MCCM? If so, please describe them and your experiences with them.
  - Do these models have similar goals to MCCM? What are the main elements of these models? How are they similar to or different from MCCM?

- Are you aware of any oncology practices in your community that are participating in the Oncology Care Model (OCM) – a new Medicare program to improve the care of Medicare beneficiaries diagnosed with cancer?
  - [IF YES] Are any of your patients enrolled in MCCM also being treated by an oncology practice that is participating in OCM?
    - [If YES] Since both OCM and MCCM have a requirement for care coordination, how do you work with the oncology practice to coordinate care for these patients?

- Are there local Accountable Care Organizations that your hospice is either a part of or has a preferred provider agreement with?
  - If yes, is care coordination a component of these models?

- Are there other payment or care delivery models ongoing in your area such as:
  - Bundled Payment for Care Improvement
  - Comprehensive ESRD Care Model
  - Comprehensive Primary Care Plus
  - Independent at Home Demonstration
  - [IF YES] How are these impacting your participation in MCCM?

Partnerships with health systems, home health agencies, nursing homes, etc.

- Is your hospice partnering with any other entities such as home health agencies, durable medical equipment suppliers, or nursing homes to deliver services under MCCM?
  - [If YES]
    - What types of organizations is your hospice partnered with? Are these formal partnerships (e.g., preferred provider or other contractual agreements) or looser relationships?
    - How did you choose these partners?
    - Are you seeking new or additional partners related to your participation in MCCM?
  - [If NO]
    - If your hospice doesn't have formal partnerships with other entities, are there particular hospitals or providers you work with more frequently than others?
    - Are there potential partnerships that you think would benefit your MCCM patients? Do you intend to pursue these partnerships?
- Is your hospice working closely or collaborating with a local health coalition, post-acute care organization, network, on initiatives to improve end of life care? If so, to what extent have aspects of MCCM been discussed (e.g., improving care coordination across settings, enhanced transition planning)?

Referral patterns

- Can you walk us through the typical referral process for Medicare patients to hospice (prior to MCCM)?
  - Does the process vary by referral source (e.g., physician versus SNF versus hospital)?
- Have these approaches changed since participation in the MCCM began?
  - Have referral sources or volume of referrals from particular sources changed because of MCCM?
  - Have these referral sources been informed about the MCCM? Who was educated (hospital case managers, discharge planners, home health agency staff, physician practices, other providers)? In what way? How was this information received?
  - How have referrals to traditional hospice been affected by the addition of the MCCM?
- Do you foresee future changes in referral patterns as your hospice continues in the MCCM?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Why did the hospice decide to participate in MCCM?
  - Who was involved in this decision (e.g., leadership, direct care staff)?
  - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?

  - Did competition in your community or any other market characteristics impact your decision to apply to participate in MCCM?
- When did the hospice make the decision to apply for the MCCM? What were the perceived advantages and disadvantages of participation? Have those changed over time?

Enrollment/Marketing and coordination with referring physicians and beneficiaries

We'd like to talk a little bit about how the hospice is approaching enrollment into MCCM.

- What has been the primary strategy for identifying patients who may be eligible to enroll in MCCM?
  - Are staff working directly with physicians or individuals working in other organizations (e.g., discharge planners/case managers) to identify potential MCCM patients?
  - Are you marketing the program directly to patients?
- [If working with physicians] How are you working with physicians to market the MCCM to them and their patients?
  - How are physicians identified to work with?
  - Have you developed educational materials about MCCM for these physicians? If so, do you have copies of these materials you could share?
  - Since the start of MCCM, has the group of physicians you work with changed?
  - Has having MCCM led serving a different patient population than your hospice previously served?
- [If working directly with patients] How do staff identify potential patients who may be eligible to enroll in MCCM?
  - Have staff developed educational materials about MCCM for these patients? If so, do you have copies of these materials you can share with us?
  - Has having MCCM led to serving a different patient population than your hospice previously served?
- [If working with individuals in other organizations] How is your hospice staff working with these individuals to market the MCCM to them and their patients?
  - How did staff identify individuals within organizations to work with?
  - Have staff developed educational materials about MCCM for these individuals? If so, do you have copies of these materials you can share with us?
  - Since the start of MCCM, have referral patterns for traditional hospice services from these individuals changed in anyway?
- In general, what has worked well in these relationships? What are you planning to do differently to continue to enroll patients in the program?
  - Is there particular messaging about the program that resonated particularly well with patients, physicians, or others to whom you market the program? Is there particular messaging that was poorly received?
  - What challenges have your staff faced when educating others about MCCM? What have you done to overcome the challenges?
  - What are your staff planning to do differently to continue to enroll patients in the program?

Delivery of MCCM services

We'd like to understand what the hospice has changed about how it delivers care in order to comply with MCCM requirements.

- Prior to joining MCCM, did the hospice offer a palliative care program to patients before they elected the Medicare hospice benefit? If not, was the hospice affiliated with one operated by another entity?

- How do you assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
  - Who completes this assessment? How long does it take?

- Once a patient enrolls in MCCM, can you walk us through the immediate next steps?
  - How and when is an initial assessment of the patient conducted in order to determine what services will be offered to the patient?
  - Who (i.e., what IDT members) participates in the assessment?

- Do you create a care plan for each MCCM patient?
  - If so, does the care plan include the care they are receiving from other curative providers?
  - If the patient and/or their family member involved in developing the care plan?
  - How do you communicate the care plan to the appropriate providers (e.g., the patient's referring physician, home health provider, etc.)?

- Has your hospice added any new services to meet MCCM requirements that were previously not offered?

- If the hospice is part of a larger system:
  - How has the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
  - Are you able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your patients?

Care coordination across multiple providers

As you know, one of the requirements of MCCM is to coordinate all of the care that a patient receives, including from your hospice and other outside providers such as a patient's oncologist or cardiologist.

- Did hospice staff have any experience coordinating care with other curative providers prior to your participation in MCCM?
  - If your hospice staff previously coordinated care, how has this activity and your operations changed with your participation in MCCM?

- How do you approach this requirement to coordinate care?
  - What elements of care does the staff coordinate for patients? Appointment/test/procedure scheduling? Prescription fills/refills and durable medical equipment? Transportation needs or appointment follow-ups?

  - What about services from home health agencies such as aides, PT, OT or IV infusion?

- What systems do staff use to coordinate care (e.g., electronic communication, secure fax, EHR portal)? Who can access these systems within the hospice or outside of the hospice?

- Are you able to track if a patient has visited an Emergency Department (ED) or been admitted to the hospital? If yes, do you track it for all patients or just those in MCCM?

- What has worked well so far in the area of care coordination? What are you planning to do differently as the model implementation proceeds?
  - What have been the barriers to effective care coordination?

- When an MCCM patient elects the Medicare hospice benefit, how does that transition take place?
  - Are there any differences in hospice election among the MCCM patient cohort compared to your hospice's experience prior to MCCM (e.g., are patients electing hospice sooner in their disease trajectory)?

Staff hiring and training/Workflow redesign

- Have you created a training program for your clinicians and staff about the requirements and components of MCCM – and their role in meeting these requirements? Have you created any training materials? (If so, could you share them with us?)
  - Which staff are you training? Is the training different for different staff? How long are the trainings?
  - Who created the training?
  - Is training ongoing as the model continues so that new staff receive information on the model?
  - [If applicable] Are your volunteers receiving training on MCCM?

- Have there been any changes in staffing levels or roles due to MCCM?
  - Were new staff hired specifically to implement MCCM? If so, for what roles?

- Have you implemented any deliberate workflow redesign for your staff to meet MCCM requirements? Whose workflows are you focused on, and what is being changed? Do you anticipate additional changes in the future?

Use of technology, Data collection and reporting

- What information systems does the hospice use to track and manage patients (e.g., an EHR, paper charting)? Is this the same or different for MCCM patients?
  - If the hospice uses an EHR: Were any changes made to the EHR to facilitate participation in MCCM? If so, can you describe these changes?
    - Can your EHR flag MCCM patients?
    - Do all members of the IDT have access to the EHR?

- Are there any new technologies or processes you plan to use to coordinate care for MCCM patients? For example, new telephonic technologies for conferencing calling, text or instant messaging with patients or among staff?

- How is clinical and non-clinical information shared with providers (e.g., referring physicians/hospitals) outside of your hospice?
    - What information is shared?
    - Is this mode of information sharing effective?
    - Have there been any changes regarding with whom information is shared, the type of information shared, or systems for sharing information since entering the MCCM?
    - Do you foresee future changes necessary as you continue in the MCCM?

- What kind of routine quality monitoring does your hospice do? How has quality monitoring changed since participating in MCCM?
    - Are you tracking specific quality measures? Are you tracking these specifically for MCCM participants, or do you track these for all hospice beneficiaries?
    - Are there certain measures that are the most important indicators of success in the model?
    - Who is able to access quality data within the hospice? Individuals from your larger organization (if appropriate)? Is it shared with direct care staff?
    - Do you share quality data with referral sources or other partners? Do they share such data with you?
    - Do you have plans to collect more or different quality measures in the future?

- We'd like to hear about your experience uploading data to the implementation portal.
    - Who is responsible for gathering and submitting data to the MCCM portal?
    - Do you have a formal process for verifying that the information submitted is accurate?
    - Are the data easily accessible for submission to the portal (e.g., from your EHR), or do you have to enter it manually?

Financial Impact/Monitoring

- What has been the financial impact of MCCM on your hospice? Is this impact consistent with your expectations? If not, how so?

- What are the key financial indicators the hospice is monitoring for MCCM?

- In your experience, how does the cost of caring for beneficiaries under MCCM compare to the current reimbursement for MCCM? For what types of patients is the cost of providing care most out of line with the MCCM reimbursement?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?
    - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice patients (e.g., non-MCCM) receive?

- How do you think MCCM will impact your patient's access to care, both hospice care as well as care focused on prolonging life?
    - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
    - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?

- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

- Has your hospice participated in any of the MCCM learning system activities (e.g., webinars, enrollment initiatives)?
    - If so, how has your participation in these activities impacted your implementation of MCCM? How have you used what you learned?
    - Are there topics that you'd like to have addressed in future activities?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about what the potential unintended consequences, both negative and positive, the MCCM might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Medicare Care Choices Model Evaluation
Interview Protocol: Care Coordinator/Care Manager

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Topic 1: Market & Hospice Characteristics

Introduction/Background

To start off, can you tell me a little bit about yourself?

- How long have you worked in this hospice? In any hospice?
- What is your training?
- Do you have experience working in other care settings?
- Have you always worked as a care coordinator at this hospice? If not, what was your role prior to assuming this duty?

Please describe your role and day-to-day responsibilities as they relate to the MCCM model.

- Do you work exclusively with MCCM patients?
- Do you have responsibilities outside of the MCCM? If so, can you describe them?

Characteristics of the patient population served

- Can you tell me about the patient population served by MCCM and how this differs from the traditional hospice population?
    - In particular, in the MCCM model, do you serve one type of diagnosis predominately? If so, are there particular factors you believe led to this?
    - Are there certain target populations or diagnoses that you notice are harder to serve under MCCM (e.g., AIDS patients)? If so, why? How are you going about addressing these challenges?

- Are there groups of patients with certain beliefs (e.g., cultural, religious) that may influence their acceptance of hospice care?
    - Please describe the segment of the population and their beliefs.
    - What is the influence of these beliefs on their potential acceptance of MCCM?

Experience in and overlap with other alternative payment models

- Are you aware of any oncology practices in your community that are participating in the Oncology Care Model (OCM) – a new Medicare program to improve the care of Medicare beneficiaries diagnosed with cancer?
    - [IF YES] Are any of your patients enrolled in MCCM also being treated by an oncology practice that is participating in OCM?
        - [If YES] Since both OCM and MCCM have a requirement for care coordination, how do you work with the oncology practice to coordinate care for these patients?

Topic 2: Program Implementation

Enrollment/Marketing and coordination with referring physicians and beneficiaries

We'd like to talk a little bit about how the hospice is approaching enrollment into MCCM.

- What has been the primary strategy for identifying patients who may be eligible to enroll in MCCM?

- Are you working directly with physicians or individuals working in other organizations (e.g., discharge planners/case managers) to identify potential MCCM patients?
- Are you marketing the program directly to patients?

- [If working with physicians] How are you working with physicians to market the MCCM to them and their patients?
  - How do you identify physicians to work with?
  - Have you developed educational materials about MCCM for these physicians? If so, do you have copies of these materials you could share?
  - Since the start of MCCM, has the group of physicians you work with changed?
  - Has having MCCM led to serving a different patient population than your hospice previously served?

- [If working directly with patients] How do you identify potential patients who may be eligible to enroll in MCCM?
  - Have you developed educational materials about MCCM for these patients? If so, do you have copies of these materials you could share?
  - Has having MCCM led to serving a different patient population than your hospice previously served?

- [If working with individuals working in other organizations] How are you working with these individuals to market the MCCM model to them and their patients?
  - How did you identify which individuals within organizations you would work with?
  - Have you developed educational materials about MCCM for these individuals? If so, do you have copies of these materials you can share with us?
  - Since the start of MCCM, have your referral patterns for traditional hospice services from these individuals changed in anyway?

- In general, what has worked well in each of these relationships (e.g., with patients, physicians or other organizations)? What are you planning to do differently to continue to enroll patients in the program?
  - Is there particular messaging about the program that resonated particularly well with patients, physicians, or others to whom you market the program? Is there particular messaging that was poorly received?
  - What challenges have you faced when educating others about MCCM? What have you done to overcome the challenges?
  - What are you planning to do differently to continue to enroll patients in the program?

Care coordination across multiple providers

As you know, one of the requirements of MCCM is to coordinate all of the care that a patient receives, including from your hospice and other outside providers such as a patient's oncologist or cardiologist.

- Can you tell me about how you are trying to coordinate care for MCCM patients with outside providers?

Care Coordinator/Care Manager

  - If your hospice staff previously coordinated care, how has this activity and your operations changed with your participation in MCCM?

- How do you approach this requirement to coordinate care?
  - What elements of care do you coordinate for patients? Appointment/test/procedure scheduling? Prescription fills/refills and durable medical equipment? Transportation needs or appointment follow-ups?
  - What about services from home health agencies such as aides, PT, OT or IV infusion?

- What systems do staff use to coordinate care (e.g., electronic communication, secure fax, EHR portal)? Who can access these systems within the hospice or outside of the hospice?

- Are you able to track if a patient has visited an Emergency Department (ED) or been admitted to the hospital? If yes, do you track it for all patients or just those in MCCM?

- What has worked well so far in the area of care coordination? What are you planning to do differently as the model implementation proceeds?
  - What have been the barriers to effective care coordination?

- When an MCCM patient elects the Medicare hospice benefit, how does that transition take place?
  - How do you approach talking to the patient about switching from the MCCM model to the hospice benefit? When do you typically have these conversations?
  - Are there any differences in hospice election among the MCCM patient cohort compared to your hospice's experience prior to MCCM (e.g., are patients electing hospice sooner in their disease trajectory)?

Staff hiring and training/Workflow redesign

- Has your organization created a training program for clinicians and staff about the requirements and components of MCCM – and their role in meeting these requirements?
  - Which staff are being trained? Is the training different for different staff? How long are the trainings?

Use of technology, Data collection and reporting

- What information systems does the hospice use to track and manage patients (e.g., an EHR, paper charting)? Is this the same or different for MCCM patients?
  - If the hospice uses an EHR: Were any changes made to the EHR to facilitate participation in MCCM? If so, can you describe these changes?
    - Can your EHR flag MCCM patients?
    - Do all members of the IDT have access to the EHR?

- Are there any new technologies or processes you plan to use to coordinate care for MCCM patients? For example, new telephonic technologies for conferencing calling, text or instant messaging with patients or among staff?

- How is clinical and non-clinical information shared with providers (e.g., referring physicians/hospitals) outside of your hospice?
    - What information is shared?
    - Is this mode of information sharing effective?
    - Have there been any changes regarding with whom information is shared, the type of information shared, or systems for sharing information since entering the MCCM?
    - Do you foresee future changes necessary as you continue in the MCCM model?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?
    - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice (e.g., non-MCCM) patients receive?

- How do you think MCCM will impact your patient's access to care both to hospice care as well as care focused on prolonging life?
    - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
    - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where? Are you monitoring any key financial indicators?

- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about what the potential unintended consequences, both negative and positive, MCCM might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Data/Analytics Staff

Medicare Care Choices Model Evaluation
Interview Protocol: Data Analytics Staff

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Data/Analytics Staff

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe the hospice:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Has the hospice recently merged with another hospice, or provider organization, or undergone a significant expansion? Do you anticipate any mergers or expansions in the foreseeable future?
  - What proportion of the (traditional) hospice patients are Medicare beneficiaries/private pay/Medicaid patients?

- What is the average annual number of traditional hospices patients your hospice serves and what is their average length of stay?
  - To date, what is the average length of time that MCCM patients stay in the program before transitioning to traditional hospice, dying or withdrawing from the program?

Experience in and overlap with other alternative payment models

- Is your hospice participating in other payment or care delivery reform initiatives that might overlap with MCCM? If so, please describe them and your experiences with them.
  - Do these models have similar goals to MCCM? What are the main elements of these models? How are they similar to or different from MCCM?

- Are there local Accountable Care Organizations that your hospice is either a part of or has a preferred provider agreement with?
  - If yes, is care coordination a component of these models?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Why did the hospice organization decide to participate in MCCM?
  - Were you involved in this decision?
  - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?

Use of technology, Data collection and reporting

- What information systems does the hospice use to track and manage patients (e.g., an EHR, paper charting)? Is this the same or different for MCCM patients?
  - If the hospice uses an EHR: Were any changes made to the EHR to facilitate participation in MCCM? If so, can you describe these changes?
    - Can your EHR flag MCCM patients?
    - Do all members of the IDT have access to the EHR?
- Are there any new technologies or processes you plan to use to coordinate care for MCCM patients? For example, new telephonic technologies for conferencing calling, text or instant messaging with patients or among staff?

Data/Analytics Staff

- How is clinical and non-clinical information shared with providers (e.g., referring physicians/hospitals) outside of your hospice?
    - What information is shared?
    - Is this mode of information sharing effective?
    - Have there been any changes regarding with whom information is shared, the type of information shared, or systems for sharing information since entering MCCM?
    - Do you foresee future changes necessary as you continue in MCCM?

- What kind of routine quality monitoring does your hospice do? How has quality monitoring changed since participating in MCCM?
    - Are you tracking specific quality measures? Are you tracking these specifically for MCCM participants, or do you track these for all hospice beneficiaries?
    - Are there certain that are the most important indicators of success in the model?
    - Who is able to access quality data within the hospice? Individuals from your larger organization (if appropriate)? Is it shared with direct care staff?
    - Do you share quality data with referral sources or other partners? Do they share such data with you?
    - Do you have plans to collect more or different quality measures in the future?

- We'd like to hear about your experience uploading data to the implementation portal.
    - Who is responsible for gathering and submitting data to the MCCM portal?
    - Do you have a formal process for verifying that the information submitted is accurate?
    - Are the data easily accessible for submission to the portal (e.g., from your EHR), or do you have to enter it manually?

- Has your hospice participated in any of the MCCM learning system activities (e.g., webinars, enrollment initiatives)?
    - If so, have you found these to be beneficial? How have you used what you learned?
    - Are there topics that you'd like to have addressed in future activities?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about what the potential unintended consequences, both negative and positive, MCCM might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Medicare Care Choices Model Evaluation
Interview Protocol: Financial/Billing Staff

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Financial/Billing Staff

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe your organization:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Have you recently merged with another hospice, or provider organization, or undergone a significant expansion? Do you anticipate any mergers or expansions in the foreseeable future?
  - What proportion of your patients are Medicare beneficiaries/private pay/Medicaid patients?

- What is the average annual number of traditional hospices patients the hospice serves, and what is their average length of stay?
  - How many MCCM patients does your hospice have (or expect) annually?
  - To date, what is the average duration that MCCM patients stay in the program before transitioning to traditional hospice, or withdrawing from the program?

Competitive marketplace

- How would you describe the local health care market in which your hospice operates?
  - How many hospitals, home health agencies, and nursing homes, serve your area?
  - How competitive is the hospice market?

- Are you aware of other local hospices that are participating in MCCM? If so, have you had any interaction with them?

- Have you noticed shifts in the local market for hospice care in recent years (e.g., more hospices entering the market, hospices closing, mergers, or a shift toward for-profit providers) or changes in referral patents to hospice?

- How widespread is managed care in this area?
  - What percentage of your patients are covered by Medicare Advantage plans?
  - How common is participation in Medicare Advantage among your patients? Do any of the Medicare Advantage plans that your patients operate a model similar to MCCM?

Experience in and overlap with other alternative payment models

- Is your hospice participating in other payment or care delivery reform initiatives that might overlap with MCCM? If so, please describe them and your experiences with them.
  - Do these models have similar goals to MCCM? What are the main elements of these models? How are they similar to or different from MCCM?

- Are there local Accountable Care Organizations that your hospice is either a part of or has a preferred provider agreement with?
  - If yes, is care coordination a component of these models?

Financial/Billing Staff

Partnerships with health systems, home health agencies, nursing homes, etc.

- Is your hospice partnering with any other entities such as home health agencies, durable medical equipment suppliers, or nursing homes to deliver services under MCCM?
  - [If YES]
    - What types of organizations are you partnered with? Are these formal partnerships (e.g., preferred provider or other contractual agreements) or looser relationships?
    - How did you choose these partners?
    - Are you seeking new or additional partners related to your participation in MCCM?
  - [If NO]
    - If you don't have formal partnerships with other entities, are there particular hospitals or providers you work with more frequently than others?
    - Are there potential partnerships that you think would benefit your MCCM patients? Do you intend to pursue these partnerships?
- Is your hospice working closely or collaborating with a local health coalition, post-acute care organization, network, on initiatives to improve end of life care? If so, to what extent have aspects of MCCM been discussed (e.g., improving care coordination across settings, enhanced transition planning)?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Why did this hospice decide to participate in MCCM?
  - Who was involved in this decision (e.g., leadership, direct care staff)?
  - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?
  - Did competition in your community or any other market characteristics impact your decision to apply to participate in MCCM?
- When did the hospice make the decision to apply for the MCCM? What were the perceived advantages and disadvantages of participation? Have those changed over time?

Financial Impact/Monitoring

- What has been the financial impact of MCCM on your hospice? Is this impact consistent with your expectations? If not, how so?
- What are the key financial indicators the hospice is monitoring for MCCM?
- In your experience, how does the cost of caring for beneficiaries under MCCM compare to the current MCCM reimbursement? For what types of patients is the cost of providing care most out of line with the MCCM reimbursement?

Financial/Billing Staff

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact that MCCM is having on the care your patients receive, as well as the cost implications of the program.

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?

- Has your hospice participated in any of the MCCM learning system activities (e.g., webinars, enrollment initiatives)?
    - If so, how has your participation in these activities impacted your implementation of MCCM? How have you used what you learned?
    - Are there topics that you'd like to have addressed in future activities?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about potential unintended consequences, both negative and positive, the MCCM model might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Marketing Staff

Medicare Care Choices Model Evaluation
Interview Protocol: Marketing Staff

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Marketing Staff

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe the hospice:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Does the hospice provide any specialized services (e.g., ventilator care, special services, home health services, palliative care)?
  - Do the hospice provide care in the nursing home setting?
  - Has the hospice recently merged with another hospice, or provider organization, or undergone a significant expansion? Do you anticipate any mergers or expansions in the foreseeable future?
  - What proportion of the traditional hospice patients are Medicare beneficiaries/private pay/Medicaid patients?

- Does the hospice have dedicated care coordinators?
  - If so, has the hospice always had dedicated care coordinators or is this a new role for MCCM?
  - What are the qualifications/training of the person in this role?

- What is the average annual number of traditional hospices patients your hospice serves and what is their average length of stay?
  - How many MCCM patients has your hospice enrolled (or expect to enroll) annually?
  - To date, what is the average length of time that MCCM patients stay in the program before transitioning to traditional hospice, dying, or withdrawing from the program?

Competitive marketplace

- How would you describe the local health care market in which your hospice operates?
  - How many hospitals, home health agencies, and nursing homes, serve your area?
  - How competitive is the hospice market?

- Are you aware of other local hospices that are participating in MCCM? If so, have you had any interaction with them?

- Have you noticed shifts in the local market for hospice care in recent years (e.g., more hospices entering the market, hospices closing, mergers, or a shift toward for-profit providers) or changes in referral patents to hospice?

- How widespread is managed care in this area?
  - What percentage of your hospice patients are covered by Medicare Advantage plans?
  - How common is participation in Medicare Advantage among your patients? Do any of the Medicare Advantage plans that your patients are enrolled in operate a model similar to MCCM?

Marketing Staff

Partnerships with health systems, home health agencies, nursing homes, etc.

- Is the hospice partnering with any other entities such as home health agencies, durable medical equipment suppliers, or nursing homes to deliver services under MCCM?
  - [If YES]
    - What types of organizations is the hospice partnered with? Are these formal partnerships (e.g., preferred provider or other contractual agreements) or looser relationships?
    - How did you choose these partners?
    - Are you seeking new or additional partners related to your participation in MCCM?
  - [If NO]
    - If your hospice doesn't have formal partnerships with other entities, are there particular hospitals or providers you work with more frequently than others?
    - Are there potential partnerships that you think would benefit your MCCM patients? Do you intend to pursue these partnerships?

- Is your hospice working closely or collaborating with a local health coalition, post-acute care organization, network, on initiatives to improve end of life care? If so, to what extent have aspects of MCCM been discussed (e.g., improving care coordination across settings, enhanced transition planning)?

Referral patterns

- Can you walk us through the typical referral process for Medicare patients to hospice (prior to MCCM)?
  - Does the process vary by referral source (e.g., physician versus SNF versus hospital)?

- Have these approaches changed since participation in the MCCM began?
  - Have referral sources or volume of referrals from particular sources changed because of MCCM?
  - Have these referral sources been informed about the MCCM model? Who was educated (hospital case managers, discharge planners, home health agency staff, physician practices, other providers)? In what way? How was this information received?
  - How have referrals to traditional hospice been affected by the addition of the MCCM?

- Do you foresee future changes in referral patterns as your hospice continues in the MCCM?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Why did the hospice decide to participate in MCCM?
  - Were you involved in this decision?
  - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?

Marketing Staff

Enrollment/Marketing and coordination with referring physicians and beneficiaries

We'd like to talk a little bit about how the hospice is approaching enrollment into MCCM.

- What has been the primary strategy for identifying patients who may be eligible to enroll in MCCM?
    - Are staff working directly with physicians or individuals working in other organizations (e.g., discharge planners/case managers) to identify potential MCCM patients?
    - Are you marketing the program directly to patients?
- [If working with physicians] How are you working with physicians to market the MCCM to them and their patients?
    - How are physicians identified to work with?
    - Have you developed educational materials about MCCM for these physicians? If so, do you have copies of these materials you could share?
    - Since the start of MCCM, has the group of physicians you work with changed?
    - Has having MCCM led to serving a different patient population than your hospice previously served?
- [If working directly with patients] How do staff identify potential patients who may be eligible to enroll in MCCM?
    - Have staff developed educational materials about MCCM for these patients? If so, do you have copies of these materials you can share with us?
    - Has having MCCM led to serving a different patient population than your hospice previously served?
- [If working with individuals in other organizations] How is your hospice staff working with these individuals to market the MCCM to them and their patients?
    - How did staff identify individuals within organizations to work with?
    - Have staff developed educational materials about MCCM for these individuals? If so, do you have copies of these materials you can share with us?
    - Since the start of MCCM, have referral patterns for traditional hospice services from these individuals changed in anyway?

- In general, what has worked well in these relationships? What are you planning to do differently to continue to enroll patients in the program?
    - Is there particular messaging about the program that resonated particularly well with patients, physicians, or others to whom you market the program? Is there particular messaging that was poorly received?
    - What challenges have you faced when educating others about MCCM? What have you done to overcome the challenges?
    - What are you planning to do differently to continue to enroll patients in the program?

Delivery of MCCM services

We'd like to understand what the hospice has changed about how it delivers care in order to comply with MCCM requirements.

Marketing Staff

- Prior to joining MCCM, did the hospice offer a palliative care program to patients before they elected the Medicare hospice benefit? If not, was the hospice affiliated with one operated by another entity?

- How do you assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
    - Who completes this assessment? How long does it take?

- Once a patient enrolls in MCCM, can you walk us through the immediate next steps?
    - How and when is an initial assessment of the patient conducted in order to determine what services will be offered to the patient?
    - Who (i.e., what IDT members) participates in the assessment?

- Do you create a care plan for each MCCM patient?
    - If so, does the care plan include the care they are receiving from other curative providers?
    - If the patient and/or their family member involved in developing the care plan?
    - How do you communicate the care plan to the appropriate providers (e.g., the patient's referring physician, home health provider, etc.)?

- Has your hospice added any new services to meet MCCM requirements that were previously not offered?

- If the hospice is part of a larger system:
    - How has the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
    - Are you able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your patients?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?
    - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice patients receive?

- How do you think MCCM will impact your patient's access to care?
    - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
    - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where? Are you monitoring any key financial indicators?

Marketing Staff

- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about potential unintended consequences, both negative and positive, the MCCM model might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Medicare Care Choices Model Evaluation
Interview Protocol: Licensed Nurses/Nurse Aides

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

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Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Licensed Nurses/Nurse Aides

Topic 1: Market & Hospice Characteristics

Introduction/Background

To start off, can you tell me a little bit about yourself?

- How long have you worked in this hospice? In any hospice?
- Do you have experience working in other care settings?
- What is your training?

Please describe your role and day-to-day responsibilities as they relate to the MCCM model.

- Do you work exclusively with MCCM patients?
- Do you have responsibilities outside of the MCCM model? If so, can you describe them?

Characteristics of the patient population served

- What are the primary diagnoses of the patients your traditional hospice serves?
  - In particular, in your MCCM model, do you serve one type of diagnosis predominately? If so, are there particular factors you believe led to this?
  - Are there certain target populations or diagnoses that you notice are harder to serve under MCCM (e.g., AIDS patients)? If so, why?

- What is the general composition of the patient population your hospice serves in terms of race/ethnicity, average age, insurance coverage, and religion?
  - Do the patients in the MCCM have a similar mix of characteristics to those of your traditional hospice patient population, or are they different? If they are different, how so?

- Are there particular groups of patients with certain beliefs (e.g., cultural, religious) that may influence their acceptance of hospice care?
  - Please describe these groups of the population and their beliefs.
  - What is the influence of these beliefs on their potential acceptance of MCCM?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Do you know why your hospice decided to participate in MCCM?
  - Were you involved in this decision (e.g., leadership, direct care staff)?
  - Was your organization already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?

Delivery of MCCM services

We'd like to understand what the hospice has changed about how it delivers care in order to comply with MCCM requirements.

- Prior to joining MCCM, did the hospice offer a palliative care program to patients before they elected the Medicare hospice benefit? If not, was the hospice affiliated with one operated by another entity?

- How do you assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
    - Who completes this assessment? How long does it take?

- Once a patient enrolls in MCCM, can you walk us through the immediate next steps?
    - How and when is an initial assessment of the patient conducted in order to determine what services will be offered to the patient?
    - Who (i.e., what IDT members) participates in the assessment?

- Do you create a care plan for the MCCM patient?
    - If so, does the care plan include the care they are receiving from other curative providers?
    - Is the patient and/or their family member involved in developing the care plan?
    - How do you communicate the care plan to the appropriate providers (e.g., the patient's referring physician, home health provider, etc.)?

- Has your hospice added any new services to meet MCCM requirements that were previously not offered?

- If the hospice is part of a larger system:
    - How has the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
    - Are you able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your patients?

Care coordination across multiple providers

As you know, one of the requirements of MCCM is to coordinate all of the care that a patient receives, including from your hospice and other outside providers such as a patient's oncologist or cardiologist.

- How is the hospice approaching this requirement to coordinate care with outside providers?
    - Do you have dedicated care coordinators or navigators?
    - What elements of care does the staff coordinate for patients? Appointment/test/procedure scheduling? Prescription fills/refills and durable medical equipment? Transportation needs or appointment follow-ups?
    - What about services from home health agencies such as aides, PT, OT or IV infusion?

- What systems do staff use to coordinate care (e.g., electronic communication, secure fax, EHR portal)? Who can access these systems within the hospice or outside of the hospice?

- We're interested in the transition between MCCM and traditional hospice. How do you approach this topic with your patient?
    - When do you typically approach this topic with your patients?
    - Who else is involved in these conversations?
    - Are there any differences in hospice election among the MCCM patient cohort compared to your hospice's experience prior to MCCM (e.g., are patients electing hospice sooner in their disease trajectory)?

Licensed Nurses/Nurse Aides

Staff hiring and training/Workflow redesign

- Did you receive any specific training about the MCCM model?
    - When did you receive this training?
    - What was covered in the training?
    - Who delivered the training?

- Has your workflow changed at all to meet MCCM requirements?

Use of technology, Data collection and reporting

- What information systems does the hospice use to track and manage patients (e.g., an EHR, paper charting)? Is this the same or different for MCCM patients?
    - If the hospice uses an EHR: Were any changes made to the EHR to facilitate participation in MCCM? If so, can you describe these changes?
        - Can your EHR flag MCCM patients?
        - Do all members of the IDT have access to the EHR?

- How is clinical and non-clinical information shared with providers (e.g., referring physicians/hospitals) outside of your hospice?
    - What information is shared?
    - Is this mode of information sharing effective?
    - Have there been any changes regarding with whom information is shared, the type of information shared, or systems for sharing information since entering the MCCM?
    - Do you foresee future changes necessary as you continue in the MCCM?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

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    - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
    - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?

- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about potential unintended consequences, both negative and positive, the MCCM model might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Physicians/NPs/PAs

Medicare Care Choices Model Evaluation
Interview Protocol: Physicians/NPs/PAs

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

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Physicians/NPs/PAs

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  - Are there certain target populations or diagnoses that you notice are harder to serve under MCCM (e.g., AIDS patients)? If so, why?

- What is the general composition of the patient population your hospice serves in terms of race/ethnicity, average age, insurance coverage, and religion?
  - Do the patients in the MCCM model have a similar mix of characteristics to those of your traditional hospice patient population, or are they different? If they are different, how so?

- Are there particular groups of patients in your local market with certain beliefs (e.g., cultural, religious) that may influence their acceptance of hospice care?
  - Please describe these groups of the population and their beliefs.
  - What is the influence of these beliefs on their potential acceptance of MCCM?

Topic 2: Program Implementation

Reasons for MCCM Entry

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Physicians/NPs/PAs

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  - What about services from home health agencies such as aides, PT, OT or IV infusion?

- What systems do staff use to coordinate care (e.g., electronic communication, secure fax, EHR portal)? Who can access these systems within the hospice or outside of the hospice?

- Are you able to track if a patient has visited an Emergency Department (ED) or been admitted to the hospital? If yes, do you track it for all patients or just those in MCCM?

- We're interested in the transition between MCCM and traditional hospice. How do you approach this topic with your patient?
  - When do you typically approach this topic with your patients?
  - Who else is involved in these conversations?
  - Are there any differences in hospice election among the MCCM patient cohort compared to your experience prior to MCCM (e.g., are patients electing hospice sooner in their disease trajectory)?

Staff hiring and training/Workflow redesign

- Did you receive any specific training about the MCCM model?
  - When did you receive this training?
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  - Who delivered the training?

- Has your workflow changed at all to meet MCCM requirements?

Use of technology, Data collection and reporting

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    - Can your EHR flag MCCM patients?
    - Do all members of the IDT have access to the EHR?

- How is clinical and non-clinical information shared with providers (e.g., referring physicians/hospitals) outside of your hospice?
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  - Is this mode of information sharing effective?

- Have there been any changes regarding with whom information is shared, the type of information shared, or systems for sharing information since entering the MCCM?
- Do you foresee future changes necessary as you continue in the MCCM?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

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  - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?

- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about potential unintended consequences, both negative and positive, the MCCM might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

QAPI Coordinator

Medicare Care Choices Model Evaluation
Interview Protocol: QAPI Coordinator

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

QAPI Coordinator

Topic 1: Market & Hospice Characteristics

Introduction/Background

To start off, can you tell me a little bit about yourself?

- How long have you worked in this hospice? In any hospice?
- Do you have experience working in other care settings?
- What is your training?
- Have you always worked as a QAPI/process improvement coordinator at this hospice? If not, what was your role prior to assuming this duty?

Please describe your role and day-to-day responsibilities as they relate to the MCCM model.

- Do you work exclusively with MCCM patients?
- Do you have responsibilities outside of the MCCM model? If so, can you describe them?

Characteristics of the patient population served

- What are the primary diagnoses of the patients your traditional hospice serves?
    - In particular, in your MCCM model, do you serve one type of diagnosis predominately? If so, are there particular factors you believe led to this?
    - Are there certain target populations or diagnoses that you notice are harder to serve under MCCM (e.g., AIDS patients)? If so, why?

- What is the general composition of the patient population your hospice serves in terms of race/ethnicity, average age, insurance coverage, and religion?
    - Do the patients in the MCCM model have a similar mix of characteristics to those of in the traditional hospice, or are they different? If they are different, how so?

- Are there particular groups of patients in your local market with certain beliefs (e.g., cultural, religious) that may influence their acceptance of hospice care?
    - Please describe these groups of the population and their beliefs.
    - What is the influence of these beliefs on their potential acceptance of MCCM?

Topic 2: Program Implementation

Delivery of MCCM services

We'd like to understand what the hospice has changed about how it delivers care in order to comply with MCCM requirements.

- Prior to joining MCCM, did the hospice offer a palliative care program to patients before they elected the Medicare hospice benefit? If not, was the hospice affiliated with one operated by another entity?

- How do you assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
    - Who completes this assessment? How long does it take?

- Once a patient enrolls in MCCM, can you walk us through the immediate next steps?

QAPI Coordinator

  - How and when is an initial assessment of the patient conducted in order to determine what services will be offered to the patient?
  - Who (i.e., what IDT members) participates in the assessment?

- Do you create a care plan for each MCCM patient?
  - If so, does the care plan include the care they are receiving from other curative providers?
  - If the patient and/or their family member involved in developing the care plan?
  - How do you communicate the care plan to the appropriate providers (e.g., the patient's referring physician, home health provider, etc.)?

- Has your hospice added any new services to meet MCCM requirements that were previously not offered?

- If the hospice is part of a larger system:
  - How has the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
  - Are you able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your patients?

Use of technology, Data collection and reporting

- What information systems does the hospice use to track and manage patients (e.g., an EHR, paper charting)? Is this the same or different for MCCM patients?
  - If the hospice uses an EHR: Were any changes made to the EHR to facilitate participation in MCCM? If so, can you describe these changes?
    - Can your EHR flag MCCM patients?
    - Do all members of the IDT have access to the EHR?

- Are there any new technologies or processes you plan to use to coordinate care for MCCM patients? For example, new telephonic technologies for conferencing calling, text or instant messaging with patients or among staff?

- How is clinical and non-clinical information shared with providers (e.g., referring physicians/hospitals) outside of your hospice?
  - What information is shared?
  - Is this mode of information sharing effective?
  - Have there been any changes regarding with whom information is shared, the type of information shared, or systems for sharing information since entering the MCCM?
  - Do you foresee future changes necessary as you continue in the MCCM?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?

  - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice patients receive?

- How do you think MCCM will impact your patient's access to care?
  - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
  - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM model controlling costs? If so, how and where?

- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about potential unintended consequences, both negative and positive, the MCCM model might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Social Workers

Medicare Care Choices Model Evaluation
Interview Protocol: Social Workers

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Social Workers

Topic 1: Market & Hospice Characteristics

Introduction/Background

To start off, can you tell me a little bit about yourself?

- How long have you worked in this hospice? In any hospice?
- Do you have experience working in other care settings?
- What is your training?

Please describe your role and day-to-day responsibilities as they relate to the MCCM model.

- Do you work exclusively with MCCM patients?
- Do you have responsibilities outside of the MCCM model? If so, can you describe them?

Characteristics of the patient population served

- What are the primary diagnoses of the patients your traditional hospice serves?
    - In particular, in your MCCM model, do you serve one type of diagnosis predominately? If so, are there particular factors you believe led to this?
    - Are there certain target populations or diagnoses that you notice are harder to serve under MCCM (e.g., AIDS patients)? If so, why?

- What is the general composition of the patient population your hospice serves in terms of race/ethnicity, average age, insurance coverage, and religion?
    - Do the patients in the MCCM have a similar mix of characteristics to those of your traditional hospice patient population, or are they different? If they are different, how so?

- Are there particular groups of patients in your local market with certain beliefs (e.g., cultural, religious) that may influence their acceptance of hospice care?
    - Please describe these groups of the population and their beliefs.
    - What is the influence of these beliefs on their potential acceptance of MCCM?

Referral patterns

- Can you walk us through the typical referral process for Medicare patients to hospice (prior to MCCM)?
    - Does the process vary by referral source (e.g., physician versus SNF)?

- Have these approaches changed since participation in the MCCM began?
    - Have referral sources or volume of referrals from particular sources changed because of MCCM?
    - Have these referral sources been informed about the MCCM? Who was informed (hospital case managers, discharge planners, home health agency staff, physician practices, other providers)? In what way? How was this information received?
    - How have referrals to traditional hospice been affected by the addition of the MCCM?

- Do you foresee future changes in referral patterns as your hospice continues in the MCCM?

Social Workers

Topic 2: Program Implementation

Enrollment/Marketing and coordination with referring physicians and beneficiaries

We'd like to talk a little bit about how the hospice is approaching enrollment into MCCM.

- What has been the primary strategy for identifying patients who may be eligible to enroll in MCCM?
    - Are staff working directly with physicians or individuals working in other organizations (e.g., discharge planners/case managers) to identify potential MCCM patients?
    - Are you marketing the program directly to patients?

- [If working with physicians] How are you working with physicians to market the MCCM to them and their patients?
    - How are physicians identified to work with?
    - Have you developed educational materials about MCCM for these physicians? If so, do you have copies of these materials you could share?
    - Since the start of MCCM, has the group of physicians you work with changed?
    - Has having MCCM led to serving a different patient population than your hospice previously served?

- [If working directly with patients] How do staff identify potential patients who may be eligible to enroll in MCCM?
    - Have staff developed educational materials about MCCM for these patients? If so, do you have copies of these materials you can share with us?
    - Has having MCCM led to serving a different patient population than your hospice previously served?

- [If working with individuals in other organizations] How is your hospice working with these individuals to market the MCCM to them and their patients?
    - How did staff identify individuals within organizations to work with?
    - Have staff developed educational materials about MCCM for these individuals? If so, do you have copies of these materials you can share with us?
    - Since the start of MCCM, have your referral patterns for traditional hospice services from these individuals changed in anyway?

- In general, what has worked well in these relationships? What are you planning to do differently to continue to enroll patients in the program?
    - Is there particular messaging about the program that resonated particularly well with patients, physicians, or others to whom you market the program? Is there particular messaging that was poorly received?
    - What challenges have your staff faced when educating others about MCCM? What have you done to overcome the challenges?
    - What are your staff planning to do differently to continue to enroll patients in the program?

Social Workers

Delivery of MCCM services

We'd like to understand what the hospice has changed about how it delivers care in order to comply with MCCM requirements.

- Prior to joining MCCM, did the hospice offer a palliative care program to patients before they elected the Medicare hospice benefit? If not, was the hospice affiliated with one operated by another entity?

- How do you assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
    - Who completes this assessment? How long does it take?

- Once a patient enrolls in MCCM, can you walk us through the immediate next steps?
    - How and when is an initial assessment of the patient conducted in order to determine what services will be offered to the patient?
    - Who (i.e., what IDT members) participates in the assessment?

- Do you create a care plan for each MCCM patient?
    - If so, does the care plan include the care they are receiving from other curative providers?
    - If the patient and/or their family member involved in developing the care plan
    - How do you communicate the care plan to the appropriate providers (e.g., the patient's referring physician, home health provider, etc.)?

- Has your hospice added any new services to meet MCCM requirements that were previously not offered?

- If the hospice is part of a larger system:
    - How has the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
    - Are you able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your patients?

Care coordination across multiple providers

As you know, one of the requirements of MCCM is to coordinate all of the care that a patient receives, including from your hospice and other outside providers such as a patient's oncologist or cardiologist.

- Did staff have any experience coordinating care with curative providers prior to your participation in MCCM?
    - If hospice staff previously coordinated care, how has this activity and your operations changed with your participation in MCCM?

- How do you approach this requirement to coordinate care?
    - Do you have dedicated care coordinators or navigators?
    - What elements of care does the staff coordinate for patients? Appointment/test/procedure scheduling? Prescription fills/refills and durable medical equipment? Transportation needs or appointment follow-ups?
    - What about services from home health agencies such as aides, PT, OT or IV infusion?

Social Workers

- What systems do staff use to coordinate care (e.g., electronic communication, secure fax, EHR portal)? Who can access these systems within the hospice or outside of the hospice?
- Are you able to track if a patient has visited an Emergency Department (ED) or been admitted to the hospital? If yes, do you track it for all patients or just those in MCCM?
- What has worked well so far in the area of care coordination? What are you planning to do differently as the model implementation proceeds?
    - What have been the barriers to effective care coordination?
- When an MCCM patient elects the Medicare hospice benefit, how does that transition take place?
    - How do you approach talking to the patient about switching from the MCCM model to the hospice benefit? When do you typically have these conversations?
    - Are there any differences in hospice election among the MCCM patient cohort compared to your hospice's experience prior to MCCM (e.g., are patients electing hospice sooner in their disease trajectory)?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact = MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?
    - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice patients receive?
- How do you think MCCM will impact your patient's access to care?
    - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
    - Are you monitoring access or barriers to care?
- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?
- What impact do you think MCCM is having on patient or caregiver satisfaction with the care they are receiving? Satisfaction for staff at your hospice? Physician or referrer satisfaction?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about potential unintended consequences, both negative and positive, the MCCM model might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Medicare Care Choices Model Evaluation
Interview Protocol: Case Study Interviews with Beneficiaries or Caregivers

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker]*.

You are being asked to participate in this interview because you or your loved one is currently receiving services under the MCCM model. The MCCM is a new way of providing Medicare services where eligible people get additional services to improve their quality of life.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate [name hospice gave their MCCM model], which is part of MCCM. The purpose of this evaluation is to help CMS understand how hospices participating in this model coordinate services, and how it affects your/your loved one's quality of life, quality of care and Medicare costs.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you/your loved one choose(s) not to participate, or to stop the interview at any time, you/your loved one will not be penalized in any way. [If interview is taking place in a hospice inpatient facility: We will be sure to close the door so that our conversation will not be overheard by anyone else.] Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your/your loved one's health care providers, the government, or anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you/your loved one, and from staff at [NAME OF HOSPICE], but we will not include your/your loved one's name in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and to record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

MCCM Evaluation: Beneficiary/Caregiver Interview Guide

Topic 1: Background

1. Tell me a little about yourself/the patient and about his/her needs which led them to receive care from [HOSPICE NAME]. Do you/the patient have a live-in caregiver, or do you live alone?

2. Have you heard about the Medicare Care Choices Model? [If not, remind the patient using the name of the hospice and the specific name of the program used]
    a. When did you/the patient start to receive services as part of the Medicare Care Choices Model? [Use the actual name of the MCCM model if that information is available prior to the interview].

3. Prior to enrolling in the program, what type of support for your illness, if any, were you/the patient receiving from family, friends, or medical providers (e.g., visits from home health agency)?

Topic 2: Communication and Decision Making Regarding Enrolling in MCCM

1. Tell me about your decision to enroll in the program.
    a. What was important in your decision?
    b. Who did you discuss the decision with?
    c. What were you told about the program? From whom did you receive this information?
    d. What services were appealing to you?
    e. Did you have any concerns about the program?
    f. How were you doing before enrolling in the program? What supports were you receiving?

2. How did you/the patient first learn about the option to participate in the MCCM?

3. In your opinion, did the timing of this discussion seem appropriate?

4. Did anyone other than you/the patient participate in decision making related to participation in the program (e.g., other family members, pastors or chaplains)? If so, was there support among the individuals involved in the decision making?

5. Did you/the patient consider any other options for care while considering MCCM (e.g., home care, palliative care, or hospice services)? If so, why was enrollment in MCCM a preferable option?

Topic 3: Provision and Coordination of Care through MCCM

1. What types of services are you currently receiving from [HOSPICE NAME]? Were you involved in identifying the need for these services?

2. Are these services meeting your needs? If no, what other services do you feel you need?

3. Does someone from the hospice visit you/the patient at home? If yes:
    - Who and how often?
    - Are the visits scheduled, on an as-needed basis or both?
    - Are the visits helpful? Why or why not?

4. If you/the patient needs assistance after business hours, do you normally call the hospice, or do you contact your physician's office?
   - Do you find staff from the hospice are generally responsive to these needs?

5. Did the hospice obtain any equipment for you to use in your home? If so:
   - What types of equipment?
   - What led to the provision of the equipment (e.g., patient request, clinical assessment, patient concern over inability to perform a task independently)?
   - Is it helpful and sufficient to meet your/the patient's needs?

6. Do you use any medications to help your symptoms or keep you/the patient comfortable? If yes,
   - What is the hospice's role in helping you/the patient to obtain the medications?
   - Has your medication regimen changed since you/the patient enrolled in MCCM?
   - Is your/the patient's medication regimen meeting your/the patient's expectations for symptom relief?
   - Has the hospice provided suggestions for individualized non-medication approaches to help you manage your symptoms? If yes, are these helpful?

7. Did the decision to join the MCCM model change the level of involvement of your/the patient's usual physician(s) in your/the patient's care? If so
   - Please describe the change.
   - How do you/the patient feel about the change?

8. Has the frequency of appointments with your/the patient's physician(s) changed? If so:
   - What has changed?
   - How do you/the patient feel about the changes?

9. How do staff from [HOSPICE NAME] ensure that the care you are receiving is well coordinated?
   - Do they help you schedule appointments?
   - Do they help with arrangements for transportation if you need it?
   - Do they coordinate sharing your records or test results?
   - Are these services sufficient to meet your/the patient's needs?

Topic 5: Impact of MCCM

1. Which services that you're receiving have helped you the most? What services could be improved?

2. How has MCCM impacted your/the patient's:
   - Quality of life?
   - Family's quality of life?
   - Care?
   - Symptom management?
   - Financial issues related to your care?
   - Concerns about the future?
   - Any other ways in which the program or these services have affected you?

3. Is there anything about the MCCM model that you would like to add that we did not discuss?

Medicare Care Choices Model Evaluation
Interview Protocol: Referring Physician Interview Guide

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which [NAME OF HOSPICE] is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because you have referred your patients for participation in this program.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers or staff at [NAME OF HOSPICE], with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

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Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

MCCM Evaluation: Referring Physician Interview Guide

Q1. Topic 1: Background

1. Please start off by telling me a little bit about yourself and your practice.
    a. How long have you been affiliated with this practice?
2. Does your practice:
    a. Participate in a hospice network? If so, is the hospice network participating in MCCM?
    b. Collaborate with a practice/system that has a palliative care or hospice program? If the provider practice/system has a hospice program, are they participating in MCCM?

Q2. Topic 2: Awareness of the MCCM model

1. What is your understanding of the MCCM model [Use this name of the program at the hospice]?
2. When and how did you first learn about MCCM? Did you learn about MCCM from [HOSPICE NAME] or some other source?
    a. Did [HOSPICE NAME] provide any training or information to you about their program?
3. Do MCCM-participating hospices actively market to you/your practice? If so:
    a. What outreach or marketing materials did they provide that were particularly useful to you, your staff, and/or your patients?
4. How have your expectations about MCCM aligned with your experiences so far?

Q3. Topic 3: Facilitation of Patient Referrals to MCCM and Provision of Patient Care and Coordination

1. At what point do you initiate conversations with patients and families about hospice care?
    a. Has anything about these conversations changed because of MCCM?
2. Tell me about how your patients learn about MCCM. Do you generally introduce the program to them, or do they bring it up to you?
3. Is there a subset of patients for whom you think the model is most appropriate?
4. How do patients and their families react to the information you share with them about the model?
    a. What do you think contributes to this reaction?
    b. How do your patients react to the connection between MCCM and traditional hospice care?
5. Do you feel the MCCM eligibility requirements are appropriate? Do you think there should be any changes to the eligibility requirements?
6. How many patients have you referred to MCCM? If some of the referred patients did not enroll, why do you think they did not enroll?

7. How is care of patients enrolled in MCCM coordinated between you and the MCCM hospice?
    a. How do you communicate with the MCCM hospice? Does this differ from how you communicate with other service providers such as home health agencies?
    b. Is communication from the hospice on an as-needed basis, a routine basis, or both?
    c. Do you feel you have adequate access to the hospice/MCCM staff if you have questions or need anything for your patients?

8. Has direct communication between you and your patients/their families changed since they enrolled in MCCM? If so, how?

9. Is there an MCCM model coordinator (or someone from the program) who visits your practice? If so, what is the frequency and purpose(s) of the visits?

10. Are you and your staff comfortable addressing patient and family questions regarding the model? If not, are additional sources of information readily available to you?

11. Does your practice share any clinical information with the MCCM hospice? If so, how is this done (e.g., secure fax or email, portal into EHR)?
    a. Does the MCCM hospice share clinical information with you? If so, how is this done?

12. For your patients enrolled in MCCM, has access to medications for symptom management or medical equipment changed in any way? If so, how?

Q4. Topic 4: MCCM model Impacts

1. What impact do you think the MCCM has had on:
    a. Patient quality of care and life?
    b. Caregiver/family member quality of life?
    c. Emergency department use?
    d. Symptom management?
    e. Satisfaction with the care your patients are receiving?
    f. Your and your staff's ability to coordinate and manage your patients' care?

2. How do you monitor the quality of care received by your patients who are enrolled in MCCM? Do you receive any formal feedback reports from the hospice?
    a. Thinking about the MCCM as a whole, are there any potential downsides you worry about for your patients specifically, and for all patients enrolled in the model nationwide?

3. In closing, is there anything else about the MCCM that you think is important for us to know?

C.4.2 Cohort 2 Telephone Interview Protocol

Medicare Care Choices Model Evaluation
Interview Protocol: Cohort 2 Hospice Leadership (Evaluation Year 1)

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from [Abt Associates/University of Washington/L&M Policy Research]. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because your organization will begin implementing MCCM in January 2018.

Our interview today should last about [INSERT TIME]. Participation is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from you, and from staff at [NAME OF HOSPICE], but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe the hospice:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Does the hospice provide any specialized services (e.g., ventilator care, special services, home health, palliative care)?
  - Does the hospice provide care in the nursing home setting?
  - Does your hospice have a palliative care program? If not, is your hospice affiliated with a palliative care program?
  - Has the hospice recently merged with another hospice, or provider organization, or undergone a significant expansion? Do you anticipate any mergers or expansions in the foreseeable future?
  - What proportion of the (traditional) hospice patients are Medicare beneficiaries/private pay/Medicaid patients?

- Please briefly describe your staff:
  - How does your organization plan to staff your MCCM model?
    - Who will be involved? Have they already been hired?
  - Does the hospice employ physicians? If so, how many and what are their roles (e.g., medical director, direct care provider)?
  - Does the hospice utilize nurse practitioners/physician assistants?
  - Other interdisciplinary team members (i.e. nurses, LPNs, social workers, chaplains, volunteer coordinator, bereavement coordinator)?
  - Does the hospice plan to use volunteers to provide services to patients enrolled in MCCM? If so, what services do they provide?

- What is the average annual number of traditional hospices patients your hospice serves and what is their average length of stay?

Competitive marketplace

- How would you describe the local health care market in which your hospice operates?
  - How many hospitals, home health agencies, and nursing homes, serve your area?
  - How competitive is the hospice market?

- Are you aware of other local hospices that are participating in MCCM? If so, have you had any interaction with them?

- Have you noticed shifts in the local market for hospice care in recent years (e.g., more hospices entering the market, hospices closing, mergers, or a shift toward for-profit providers) or changes in referral patents to hospice?

- How widespread is managed care in this area?

- What percentage of your hospice patients are covered by Medicare Advantage plans?
- How common is participation in Medicare Advantage among your patients? Do any of the Medicare Advantage plans that your patients are enrolled in operate a model similar to MCCM?

Experience in and overlap with other alternative payment models

- Is your hospice participating in other payment or care delivery reform initiatives that might overlap with MCCM? If so, please describe them and your experiences with them.
  - Do these models have similar goals to MCCM? What are the main elements of these models? How are they similar to or different from MCCM?
- Are you aware of any oncology practices in your community that are participating in the Oncology Care Model (OCM) – a new Medicare program to improve the care of Medicare beneficiaries diagnosed with cancer?
  - [If YES] Since both OCM and MCCM have a requirement for care coordination, how do you plan to work with the oncology practice to coordinate care for these patients?
- Are there local Accountable Care Organizations that your hospice is either a part of or has a preferred provider agreement with?
  - If yes, is care coordination a component of these models?
- Are there other payment or care delivery models ongoing in your area such as:
  - Bundled Payment for Care Improvement
  - Comprehensive ESRD Care Model
  - Comprehensive Primary Care Plus
  - Independent at Home Demonstration
  - [IF YES] Do you anticipate that these programs might impact your participation in MCCM?

Partnerships with health systems, home health agencies, nursing homes, etc.

- Is your hospice planning to partner with any other entities such as home health agencies, durable medical equipment suppliers, or nursing homes to deliver services under MCCM?
  - [If YES]
    - With what types of organizations is your hospice pursuing partnerships? Will these be formal partnerships (e.g., preferred provider or other contractual agreements) or looser relationships?
    - How did you identify these partnership opportunities?
  - [If NO]
    - If your hospice doesn't have formal partnerships with other entities, are there particular hospitals or providers you work with more frequently than others?
    - Are there potential partnerships that you think would benefit your MCCM patients? Do you intend to pursue these partnerships?
- Is your hospice working closely or collaborating with a local health coalition, post-acute care organization, network, on initiatives to improve end of life care? If so, to what extent have

aspects of MCCM been discussed (e.g., improving care coordination across settings, enhanced transition planning)?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Why did the hospice decide to apply for the MCCM?
  - Who was involved in this decision (e.g., leadership, direct care staff)?
  - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?
  - Did competition in your community or any other market characteristics impact your decision to apply to participate in MCCM?

- When did the hospice make the decision to apply for the MCCM? What were the perceived advantages and disadvantages of participation? Have those changed over time?

Enrollment/Marketing and coordination with referring physicians and beneficiaries

We'd like to talk a little bit about how the hospice plans to approach enrollment into MCCM.

- What will be the primary strategy for identifying patients who may be eligible to enroll in MCCM?
  - Will staff be working directly with physicians or individuals working in other organizations (e.g., discharge planners/case managers) to identify potential MCCM patients?
  - Will you be marketing the program directly to patients?

- Who will be involved with identifying and educating referral sources about MCCM? For example, will it be part of your regular marketing efforts, or a separate approach?
  - Have you already begun any of this education, or when do you plan to begin?
  - Are you creating any special materials or marketing campaigns?

- [If working with physicians] How will you work with physicians to market the MCCM to them and their patients?
  - How will you identify physicians to work with?
  - Have you developed educational materials about MCCM for these physicians? If so, do you have copies of these materials you could share?

- [If working directly with patients] How will staff identify potential patients who may be eligible to enroll in MCCM?
  - Have staff developed educational materials about MCCM for these patients? If so, do you have copies of these materials you can share with us?

- [If working with individuals in other organizations] How is your hospice staff working with these individuals to market the MCCM to them and their patients?
  - How will staff identify individuals within organizations to work with?

- Have staff developed educational materials about MCCM for these individuals? If so, do you have copies of these materials you can share with us?

Delivery of MCCM services

We'd like to understand what the hospice is planning to change with respect to care delivery in order to comply with MCCM requirements.

- How do you plan to assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
  - Who will complete this assessment? How long do you anticipate it will take?
- If the hospice is part of a larger system:
  - How will the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
  - Will you be able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your MCCM patients?

Care coordination across multiple providers

As you know, one of the requirements of MCCM is to coordinate all of the care that a patient receives, including from your hospice and other outside providers such as a patient's oncologist or cardiologist.

- Do hospice staff have any experience coordinating care with other curative providers prior to your participation in MCCM?
- How will you approach this requirement to coordinate care?
  - What elements of care does the staff coordinate for patients? Appointment/test/procedure scheduling? Prescription fills/refills and durable medical equipment? Transportation needs or appointment follow-ups?
  - What about services from home health agencies such as aides, PT, OT or IV infusion?
- What systems will staff use to coordinate care (e.g., electronic communication, secure fax, EHR portal)? Who can access these systems within the hospice or outside of the hospice?

Staff hiring and training/Workflow redesign

- Have you created a training program for your clinicians and staff about the requirements and components of MCCM – and their role in meeting these requirements? Have you created any training materials? (If so, could you share them with us?)
  - Which staff will you be training? will the training be different for different staff? How long will the trainings be?
  - Who will create the training?
  - Will training be ongoing as the model continues so that new staff receive information on the model?
  - [If applicable] Are your volunteers receiving training on MCCM?

Use of technology, Data collection and reporting

- What information systems does the hospice use to track and manage patients (e.g., an EHR, paper charting)? Will this be the same or different for MCCM patients?

  - If the hospice uses an EHR: Are you planning to make any changes to the EHR to facilitate participation in MCCM? If so, can you describe these changes?

- Are there any new technologies or processes you plan to use to coordinate care for MCCM patients? For example, new telephonic technologies for conferencing calling, text or instant messaging with patients or among staff?

- What kind of routine quality monitoring does your hospice do? How do you plan to monitor data and quality for MCCM patients?

Financial Impact/Monitoring

- What do you expect the financial impact of MCCM to be on your hospice?

- What are the key financial indicators the hospice will be monitoring for MCCM?

- In your experience, how do you think the cost of caring for beneficiaries under MCCM will compare to the current reimbursement for MCCM? For what types of patients is the cost of providing care most out of line with the MCCM reimbursement?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?
  - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice patients (e.g., non-MCCM) receive?

- How do you think MCCM will impact your patient's access to care, both hospice care as well as care focused on prolonging life?
  - Do you anticipate any challenges in access? In particular, do you anticipate any special challenges for patients with certain socio-demographic characteristics in ensuring access?
  - Are you monitoring access or barriers to care?

- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about what the potential unintended consequences, both negative and positive, the MCCM might have on your patients, or nationwide.

- What about non-participating hospices? Do you think they are reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

C.4.3 Protocol for Interviews with Hospices That Withdrew from MCCM

Medicare Care Choices Model Evaluation
Interview Protocol: Hospices that Withdrew from MCCM

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from Abt Associates. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization had agreed to participate prior to recently withdrawing. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. You are being asked to participate in this interview because your organization recently ended its participation in MCCM.

Our interview today should last about [INSERT TIME]. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of Abt Associates. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from all hospices that participated in the model, but subsequently withdrew, but we will not include your name or the name of your organization, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Withdrawn Hospices

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe the organization:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Does the hospice provide any specialized services (e.g., ventilator care, special services)?
  - Does the hospice provide care in the nursing home setting?
  - What proportion of the (traditional) hospice patients are Medicare beneficiaries/private pay/Medicaid patients?

- Please briefly describe your staff:
  - Does the hospice organization employ physicians? If so, how many and what are their roles (e.g., medical director, direct care provider)?
  - Does the hospice utilize nurse practitioners/physician assistants?
  - Other interdisciplinary team members (i.e. nurses, LPNs, social workers, chaplains, volunteer coordinator, bereavement coordinator)?
  - Does the hospice use volunteers to provide services to patients enrolled in MCCM? If so, what services do they provide?

- Does the hospice have dedicated care coordinators?
  - If so, did you always have dedicated care coordinators or was this a new role for MCCM?
  - What are the qualifications/training of the person in this role?

- What is the average annual number of traditional hospices patients you serve and what is their average length of stay?
  - How many MCCM patients did your hospice enrolled while you were participating in the Model?
  - What was the average length of time that MCCM patients stayed in the program before transitioning to traditional hospice, dying or withdrawing from the program?

Competitive marketplace

- How would you describe the local health care market in which you operate?
  - How many hospitals, home health agencies, and nursing homes, serve your area?
  - How competitive is the hospice market?

- Are you aware of other local hospices that are participating in MCCM? While you were participating in the Model, did you have any interaction with other local hospices participating in MCCM?

- Have you noticed shifts in the local market for hospice care in recent years (e.g., more hospices entering the market, hospices closing, mergers, or a shift toward for-profit providers) or changes in referral patents to hospice?

Withdrawn Hospices

Characteristics of the patient population served

- What are the primary diagnoses of the patients your hospice serves?
  - In particular, in your MCCM model, did you serve one type of diagnosis predominately? If so, are there particular factors you believe led to this?
  - Are there certain target populations or diagnoses that you noticed were harder to serve under MCCM (e.g., AIDS patients)? If so, why?

- What is the general composition of the patient population you serve in terms of race/ethnicity, average age, insurance coverage, and religion?
  - Did the patients who were in MCCM have a similar mix of characteristics to those of your traditional hospice patient population, or are they different? If they are different, how so?

Referral patterns

- Did your hospice see referral patterns change as a result of your participation in the MCCM model?

Experience in and overlap with other alternative payment models

- Is your hospice participating in other payment or care delivery reform initiatives that overlapped with MCCM? If so, please describe them and your experiences with them.
  - Do these models have similar goals to MCCM? What are the main elements of these models? How are they similar to or different from MCCM?

- Are you aware of any oncology practices in your community that are participating in the Oncology Care Model (OCM) – a new Medicare program to improve the care of Medicare beneficiaries diagnosed with cancer?
  - [IF YES] Were any of your patients enrolled in MCCM also being treated by an oncology practice that is participating in OCM?
    - [If YES] Since both OCM and MCCM have a requirement for care coordination, how did you work with the oncology practice to coordinate care for these patients?

- Are there local Accountable Care Organizations that your hospice is either a part of or has a preferred provider agreement with?
  - If yes, is care coordination a component of these models?

- Are there other payment or care delivery models ongoing in your area such as:
  - Bundled Payment for Care Improvement
  - Comprehensive ESRD Care Model
  - Comprehensive Primary Care Plus
  - Independent at Home Demonstration
  - [IF YES] How did these impacting your participation in MCCM?

Topic 2: Program Experience

Reasons for MCCM Entry/Withdrawal

- Why did the hospice organization decide to participate in MCCM?
    - Who was involved in this decision (e.g., leadership, direct care staff)?
    - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?
    - Did competition in your community or any other market characteristics impact your decision to apply to participate in MCCM?

- When did the hospice make the decision to apply for MCCM? What were the perceived advantages and disadvantages of participation? Did those changed over time in a way that led to your decision to withdrawn?

- What are the primary reasons that your organization decided to withdraw from MCCM?

- How did you transition patients who were enrolled in the Model at the time that your hospice stopped participating?

Delivery of MCCM services

We'd like to understand what the hospice changed about how it delivers care in order to comply with MCCM requirements.

- Prior to joining MCCM, did the hospice offer a palliative care program to patients before they elected the Medicare hospice benefit? If not, was the hospice affiliated with one operated by another entity?

- How did you assess a patient who is referred to MCCM to ensure they meet eligibility criteria?
    - Who completes this assessment? How long does it take?

- Did your hospice add any new services to meet MCCM requirements that were not previously offered? Now that you've withdrawn from the program, are you still offering these services?

Care coordination across multiple providers

As you know, one of the requirements of MCCM is to coordinate all of the care that a patient receives, including from your hospice and other outside providers such as a patient's oncologist or cardiologist.

- Did hospice staff have any experience coordinating care with other curative providers prior to your participation in MCCM?
    - If your hospice staff previously coordinated care , how did this activity and your operations change with your participation in MCCM?

- How did you approach this requirement to coordinate care?
    - Did you have dedicated care coordinators or navigators?

- What elements of care did the staff coordinate for patients? Appointment/test/procedure scheduling? Prescription fills/refills and durable medical equipment? Transportation needs or appointment follow-ups?
- What about services from home health agencies such as aides, PT, OT or IV infusion?

Staff hiring and training/Workflow redesign

- Did you create a training program for your clinicians and staff about the requirements and components of MCCM – and their role in meeting these requirements?
  - Which staff did you training?
  - Who created the training?

- Were there any changes in staffing levels or roles due to MCCM?
  - Was new staff hired specifically to implement MCCM? If so, for what roles?

Financial Impact/Monitoring

- What was the financial impact of MCCM on your hospice? Was this impact consistent with your expectations? If not, how so?

- In your experience, how did the cost of caring for beneficiaries under MCCM compare to the current reimbursement for MCCM? For what types of patients was the cost of providing care most out of line with the MCCM reimbursement?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM had on the care your patients received while your hospice participated in the program.

- In general, what impact do you think MCCM had on the care your MCCM enrolled patients?
  - On the quality of care they received?
  - On their access to care?
  - On their satisfaction with the care they received?

- Thinking about costs to Medicare and other payers, did you see the MCCM controlling costs? If so, how and where? Were you monitoring any key financial indicators?

- Had your hospice participated in any of the MCCM learning system activities (e.g., webinars, enrollment initiatives)?
  - If so, did you found these to be beneficial? How did you use what you learned?
  - Are there topics that you would have liked to have addressed?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about what were the potential unintended consequences, both negative and positive, MCCM might have had on your patients, or nationwide.

Withdrawn Hospices

- What about non-participating hospices? Do you think they reaped any benefits or experienced any disadvantages?

Is there anything else you'd like to share with us about your participation in MCCM that we haven't covered today?

C.4.4 Protocol for Interviews with Hospices with Low MCCM Enrollment

Medicare Care Choices Model Evaluation
Interview Protocol: Hospices with Low Enrollment

Name/Position of Interviewee:
Abt interviewer:
Site:
Date:

Hello, I'm (*NAME*) from Abt Associates. Thank you for your willingness to participate in today's discussion. I am working with *[introduce the note taker and partner, if appropriate]*.

Abt Associates is a private research company that has been hired by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Medicare Care Choices Model (or M-C-C-M) program in which your organization is participating. The purpose of this evaluation is to help CMS understand how hospices participating in the MCCM redesign care delivery and coordinate both hospice and curative services in one program. We are also evaluating the contextual factors that may affect program success, and most importantly, the impact of the program on quality of care, health outcomes, utilization, and Medicare spending. **Part of our evaluation is to understand the barriers that hospices may be facing enrolling patients in the model.** You are being asked to participate in this interview because you are either directly involved in this program, or it involves your patients.

Our interview today should last about an hour. Participating is voluntary. If you choose not to participate, or to stop the interview at any time, you will not be penalized in any way. Also, we would like to audio record this interview, with your permission, to help as we are writing our report. The notes and recordings of our interview will not be shared with your employers, with the government, or with anyone outside of the study team. If you do not wish to be recorded, that is fine. We will write a report for CMS that includes information we learn from your organization, as well as several others, but we will not include your name, in any report to the government. While there is a minimal risk that your confidentiality might not be preserved, we have safeguards that will protect the confidentiality of your information to the extent allowable under the law.

Do you have any questions?

If you have any questions that I cannot answer at this time, or at any time after this interview, you may contact Lynn Miescier at the Centers for Medicare and Medicare Services at (410) 786 - 4928. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this research, you may do so by calling 1-877-520-6835 toll free.

Given the information that I have just reviewed with you, do I have your permission to proceed with this interview and record our conversation?

If Yes, Great. [RECORD VERBAL CONSENT]

If yes to proceeding with the interview but not recording it: That is fine. We will just take notes during the interview. Thank you.

Topic 1: Market & Hospice Characteristics

Characteristics of hospices participating in the model

- Please briefly describe the hospice:
  - Is the hospice owned by a health system?
    - If so, are any other components of the organization participating in MCCM or any other alternative care delivery or payment models?
  - Does the hospice provide any specialized services (e.g., ventilator care, special services, home health, palliative care)?
  - Does the hospice provide care in the nursing home setting?
  - Has the hospice recently merged with another hospice, or provider organization, or undergone a significant expansion? Do you anticipate any mergers or expansions in the foreseeable future?
  - What proportion of the (traditional) hospice patients are Medicare beneficiaries/private pay/Medicaid patients?

- What is the average annual number of traditional hospices patients your hospice serves and what is their average length of stay?
  - How many MCCM patients has your hospice enrolled (or expect to enroll)?
  - To date, what is the average length of time that MCCM patients stay in the program before transitioning to traditional hospice, dying, or withdrawing from the program?

Competitive marketplace

- How would you describe the local health care market in which your hospice operates?
  - How many hospitals, home health agencies, and nursing homes, serve your area?
  - How competitive is the hospice market?

- Are you aware of other local hospices that are participating in MCCM? If so, have you had any interaction with them?

- Have you noticed shifts in the local market for hospice care in recent years (e.g., more hospices entering the market, hospices closing, mergers, or a shift toward for-profit providers) or changes in referral patents to hospice?

- How widespread is managed care in this area?
  - What percentage of your hospice patients are covered by Medicare Advantage plans?
  - How common is participation in Medicare Advantage among your patients? Do any of the Medicare Advantage plans that your patients are enrolled in operate a model similar to MCCM?

Experience in and overlap with other alternative payment models

- Is your hospice participating in other payment or care delivery reform initiatives that might overlap with MCCM? If so, please describe them and your experiences with them.
  - Do these models have similar goals to MCCM? What are the main elements of these models? How are they similar to or different from MCCM?

- Are there local Accountable Care Organizations that your hospice is either a part of or has a preferred provider agreement with?
  - If yes, is end-of-life care a component of these models?

- Are there other payment or care delivery models ongoing in your area such as:
  - Acute Illness Management (AIM) programs
  - PACE (or Program for all-inclusive care for the elderly)
  - [IF YES] How are these impacting your participation in MCCM?

Topic 2: Program Implementation

Reasons for MCCM Entry

- Why did the hospice decide to participate in MCCM?
  - Who was involved in this decision (e.g., leadership, direct care staff)?
  - Was the hospice already involved in certain required elements of MCCM, such as care coordination, shared-decision making or other care redesign activities?
  - Did competition in your community or any other market characteristics impact your decision to apply to participate in MCCM?

- When did the hospice make the decision to apply for the MCCM? What were the perceived advantages and disadvantages of participation? Have those changed over time?

Referral patterns

- Can you walk us through the typical referral process for an MCCM patient?
  - Does the process vary by referral source (e.g., physician versus SNF versus hospital)?

- Do you foresee future changes in referral patterns as your hospice continues in the MCCM?

Enrollment/Marketing and coordination with referring physicians and beneficiaries

- What has been the primary strategy for identifying patients who may be eligible to enroll in MCCM? For example, are you working with representatives of a hospital/health system, community-based physician practices, direct-to-patient marketing, etc?
  - Are you marketing the program directly to patients?
  - Have you developed educational materials about MCCM for these groups?

- In general, what has worked well in these relationships? What are you planning to do differently to continue to enroll patients in the program?
  - Is there particular messaging about the program that resonated particularly well with patients, physicians, or others to whom you market the program? Is there particular messaging that was poorly received?
  - What challenges have your staff faced when educating others about MCCM? What have you done to overcome the challenges?
  - What are your staff planning to do differently to continue to enroll patients in the program?

Barriers to eligibility

- How has your organization gone about confirming a patient's eligibility for MCCM?
- Are there certain eligibility criteria that are posing a barrier to enrollment in the model (e.g., six-month prognosis, disease categories, living at home, no Medicare advantage)?

Delivery of MCCM services

We'd like to understand what the hospice has changed about how it delivers care in order to comply with MCCM requirements.

- Has your hospice added any new services to meet MCCM requirements that were previously not offered?
- If the hospice is part of a larger system:
  - How has the health system or hospital been involved in care redesign initiatives to meet the MCCM requirements?
  - Are you able to access health system resources (e.g., support staff, office/clinical space, supportive services) for your patients?

Opportunities for improving the model

- What specific changes to the model could CMS make that would address some of the challenges to enrollment that your hospice has faced?
- Has your hospice participated in any of the MCCM learning system activities (e.g., webinars, enrollment initiatives)?
  - If so, how has your participation in these activities impacted your implementation of MCCM? How have you used what you learned?
- Are there any topics that you would like to see future webinars from CMS cover?

Topic 3: Perception of Impact

Now we'd like to talk a little bit about your perception of the impact MCCM is having on the care your patients receive, as well as the cost implications to Medicare of the program.

- What impacts do you expect MCCM to have on the quality of care your hospice delivers to patients enrolled in the Model?
  - Do you anticipate that MCCM will have any impact on the quality of care your traditional hospice patients (e.g., non-MCCM) receive?
- Thinking about costs to Medicare and other payers, do you see the MCCM controlling costs? If so, how and where?

Topic 4: Unintended Consequences/ Spillover

Stepping back and considering the MCCM model as a whole, we're interested in your thoughts about what the potential unintended consequences, both negative and positive, the MCCM might have on your patients, or nationwide.

- What about non-participating hospices? Are they reaping any benefits or experiencing any disadvantages?

Is there anything else that you'd like to share with us about your participation in MCCM that we have not covered above?

Technical Appendix D: Description of Organizational Surveys for MCCM Hospices

The organizational survey collects important information from participating hospices beyond what is available in administrative data. The survey includes items related to the hospice organization, staff experience coordinating care with community providers, and how hospices are responding to the changing health care market and increasingly complex reimbursement environment. Additionally, we wanted to understand whether MCCM hospices are partnering with palliative care programs to meet the needs of beneficiaries with advanced illness who have not yet elected hospice.

The organizational survey is designed primarily to address the following evaluation research questions, as shown in Appendix B in Exhibit B.1:

- Research Question #1: *The characteristics of MCCM-participating hospices compared with non-participating hospices*
- Research Question #3: *Factors that may limit the number of beneficiaries enrolled in the model*
- Research Question #5: *Elements of care delivery in MCCM-participating hospices compared to non-participating hospices*
- Research Question #6: *Organizational changes hospices implemented in preparation for MCCM*
- Research Question #9: *Organizational features of MCCM hospices associated with success of model implementation*
- Research Question #12: *Unintended consequences of the model*

We use the data collected through the organizational survey to supplement the information in the MCCM applications and implementation plans, findings from the case studies, information hospices enter into the MCCM portal, and other information from CMS. While some of the survey items were also previously collected in hospices' MCCM applications submitted in 2015, the survey updates this information and also collects the same information from hospices that did not apply and are not implementing MCCM (i.e., a comparison group). In addition, our experience with participant applications from other CMS models suggests that collecting data at a different point of time, and through a different mode, can yield different results. In an effort to reduce participant burden and duplication of data collection efforts, the survey did not ask about a number of organizational characteristics (ownership type, facility type, etc.) that are available from other sources.

The organizational survey has three waves in cohorts 1 and 2, and two waves of data collection for the comparison hospices. This report includes survey responses to the wave 1 survey, from cohorts 1 and 2. The cohort 1 survey focused on implementation experiences as of the survey data collection in September 2017, more than a year and a half after cohort 1 began implementing the model. In contrast, the wave 1 survey with cohort 2 was fielded in October 2017 during the ramp-up period approximately three months before cohort 2 began implementation; it focused on planned activities for the model's upcoming implementation. In the second annual report, we will be able to report, through data collected as part of the second wave of organizational surveys, on how cohort 2 hospices actually implemented the model,

and will be able to compare their plans for implementation (via the first wave of the survey) with actual implementation (via the second wave of the survey).

D.1 Questionnaire Development

Development of the organizational survey questionnaire was built on the work of Dr. Melissa Aldridge and colleagues who surveyed hospices in 2008–2009 to explore hospice organizational characteristics, hospice concerns about losing market share to competitors, and policy decisions that impact key processes of care (e.g., provision of services such as chest x-ray in the home setting, use of Licensed Practical Nurses instead of Registered Nurses (RNs), open access enrollment policies).[101] We added questions to this previous questionnaire to explore hospices' prior experience with providing core elements of the MCCM model.

The two questionnaires for wave 1 (cohorts 1 and 2) included 45 and 39 questions, respectively, and were estimated to take, on average, 25 to 30 minutes for a hospice to complete. The survey of comparison hospices uses a briefer questionnaire, with 20 questions that are estimated to take about 15 minutes to complete. Most questions are close-ended (i.e., require no exposition) because open-ended questions tend to impair response rates.

Exhibit D.1 below shows survey domains, some sample topics within each domain, and targeted respondents for those domains.

[101] Barry CL, Carlson MD, Thompson JW, et al. (2012.) Caring for grieving family members: results from a national hospice survey. *Medical Care, 50,* 578-84.

Exhibit D.1: Organizational Survey Domains

MCCM Research Question Number		MCCM Cohort 1	MCCM Cohort 2	Comparison Hospices
Hospice Characteristics and Organization				
1, 9	Use of electronic medical records	✓	✓	✓
1	Affiliation with other health care providers	✓	✓	✓
1	Participation in payment innovations	✓	✓	✓
1	Affiliation with or operation of palliative care program	✓	✓	✓
Service Delivery for Hospice Beneficiaries				
1, 3, 9	Special programs for management of chronic medical conditions or advanced serious illness	✓	✓	✓
1, 9	Weekend and after-hours coverage	✓	✓	✓
1	Staffing of home-based hospice teams	✓	✓	✓
Preparation to Take on MCCM				
3	Marketing to physicians	✓	✓	
3	Marketing to consumers	✓	✓	
10	Staff training for MCCM	✓	✓	
3, 5, 6	Business model changes to accommodate MCCM	✓	✓	
Service Delivery in MCCM				
3	Recruitment and enrollment of participants	✓	✓	
9	Staffing MCCM	✓	✓	
5	Coordination with community practitioners	✓	✓	
9	Quality Assurance and Performance Improvement activities	✓	✓	✓
Impact of MCCM				
10, 11	Perceived impact on quality of care, outcomes	✓	✓	✓

A comprehensive draft of the wave 1 cohort 1 questionnaire was completed in May 2017 and was pre-tested in June 2017. Feedback from the pre-test was used to finalize the cohort 1 questionnaire. The cohort 2 and comparison questionnaires were derived from the cohort 1 instrument. Wave 1 data collection began in September 2017. The survey will be conducted three times with all cohort 1 and 2 hospices; the matched comparison hospices were surveyed in 2017 and will be surveyed again in 2019.

For the survey pre-test, we selected several hospices with different demographic characteristics and, after CMS approval, contacted them to ask for their assistance as pre-test subjects. Four agreed to participate in the pre-test. We sent each volunteer a paper version of the questionnaire and cover letter, and asked them to fill out the questionnaire. We then held a 90-minutes webinar with the group of volunteers, to get their feedback about question wording, clarity, answer categories, and ordering. Based on this feedback we revised the questionnaire, received CMS approval, and conducted the full wave 1 survey.

For the 2017 wave 1 survey, we sent the survey to the point of contact at each participating hospice. We used a national hospice website[102] to obtain contact information for the sampled comparison hospices. For comparison hospices for which we could not obtain contact information from the national website, we placed telephone calls to the hospice to identify the most appropriate survey respondent.

D.2 Organizational Survey Sampling

As shown in Exhibit D.2, each wave of the survey (in 2017, 2018, and 2019) will include all MCCM-participating hospices in cohorts 1 and 2 that are still participating in the model at the time of the survey. For survey waves that include comparison hospices (in 2017 and 2019), we will survey the matched comparisons for each MCCM hospice. Future reports will include more information about the comparison group of hospices used for this evaluation.

Exhibit D.2: Expected Number of Organizational Survey Participants by Year

Survey Group	Estimated Sample Size for each Survey Wave*		
	2017	2018*	2019*
MCCM cohort 1	58	58	58
MCCM cohort 2	55	55	55
Comparison hospices	274	N/A	274
Total	387	113	387

Note: Hospices that withdraw from MCCM will not be surveyed after their withdrawal date. In 2018 and 2019, the number of surveys may vary from the estimates provided here if additional hospices withdraw from the model prior to the survey release.

D.3 Approach to Fielding the Organizational Survey

We administered the organizational survey using SurveyGizmo, an online survey tool, that offers a variety of question formats including multiple choice, Likert scales, drop-down selections, and free text that could accommodate our survey instrument. We identified one staff person at each MCCM-participating hospice and comparison hospice who was invited to be the main respondent for the survey. However, the survey instructions noted that multiple individuals at the hospice might need to provide input on certain questions.

The invited respondents each received an email containing the following:

- An explanation of the purpose of the survey and why they were being asked to complete it; for MCCM-participating hospices, this included a reminder that cooperating with evaluation activities is a condition of participating in MCCM
- Letters of support for the survey from CMS, the National Hospice and Palliative Care Organization, the National Partnership for Hospice Innovations, and the National Association for Home Care and Hospice

[102] http://www.nationalhospiceanalytics.com/locator/hospice-by-state

- A fact sheet describing MCCM and the evaluation data collection activities
- A unique survey link assigned to their hospice
- An approximate estimate for how long the survey takes to complete
- Information on whom to contact with questions or technical issues

The web-based survey for cohorts 1 and 2 were available for approximately three months; we sent two email reminders and telephoned nonresponding hospices during that three-month period. Additionally, all nonresponding hospices were sent a hard copy mail survey with a pre-addressed and stamped return envelope during the three-month data collection period. The response rate was 84 percent among cohort 1 hospices and 82 percent among cohort 2 hospices, as shown in Exhibit D.3.

Exhibit D.3: Response Rates from the Year 1 Organizational Survey (as of December 31, 2017)

Survey Group	2017		
	Surveys Released	Surveys Completed	Response Rate
Cohort 1	58	49	84%
Cohort 2	55	45	82%
Comparison	274	*	TBD
Overall	387	94	83%

Source: Organizational survey fielded September–December 2017.

**At the time of this report, the first wave of the comparison survey was in the field, so response rate data were not yet available.*

D.4 Ongoing Survey Analysis

We have used and will use data from the organizational survey to conduct a series of analyses, some of which have been completed and are included in this first report, and some of which will be completed for the next report. These analyses include:

1. Comparison of the characteristics of hospices that did and did not respond to the survey, in both the MCCM cohorts and the comparison group. We will characterize the response rates for each of the three survey strata: cohort 1, cohort 2, and the comparison hospices. For close-ended survey questions we will describe the frequency of response and assess the proportion of questions with missing values. If a question has significant (more than 50 percent) missing values, we will discuss with CMS whether to drop that question from subsequent questionnaires.

We will conduct a descriptive analysis to compare cohort 1, cohort 2, and the comparison hospices with appropriate statistical tests, such as chi-square tests or logistic regression. The unit of analysis will be the hospice program and we will make the following comparisons:

- Cohort 1 responses and changes in those responses over time
- Cohort 2 responses and changes in those responses over time
- Cohort 1 and cohort 2 responses will be compared over time

- Cohorts 1 and 2 combined will be compared to the comparison hospices

For tests of trends over time, we will use the variance weighted least square or Mann-Kendall trend test. When we want to adjust for hospice or market characteristics, we will use regression models that include an indicator for survey wave.

2. Characterization of actions MCCM hospices took to implement the model. The organizational survey questionnaires contain items that characterize how MCCM hospices are implementing the model, including whether new staff were hired, when marketing plans were implemented and the target audiences, training provided to hospice staff, and changes made to hospice referral processes to accommodate MCCM. Respondents reported perceived difficulty in making these changes and also of assessing the impact of MCCM. Results from the first wave of each of cohort 1 and cohort 2 surveys are descriptive; with data from subsequent yearly surveys, we will conduct a test of trend over time on items such as the perception of difficulty in implementing the model, and the perceived impact of MCCM.

3. Confirmation of whether hospices implemented the MCCM model in select regions covered by their Medicare Certification Number. The survey includes questions about the counties in which the hospice provides MCCM services. We will use these data to describe the referral regions for MCCM hospices.

4. Description of the respondent's perception of the implementation successes and challenges of MCCM. The organizational survey has open-ended questions that we have analyzed to examine potential unintended consequences of MCCM, perceived challenges, how certain eligibility requirements affect MCCM enrollment, and changes that can be made to the model to improve enrollment; and an open-ended question asking for anything else the respondent would like to share. These open-ended responses were analyzed for inclusion in this first report. For future reports, we will analyze responses from these same questions in the second and third waves of the survey to determine what, if anything, has changed regarding perceived successes and challenges of MCCM.

5. Comparison of cohort 1, cohort 2, and non-participating hospices with respect to certain organization characteristics and delivery of hospice services, and comparison of the characteristics of hospices that were successful in implementing MCCM and those that were less successful. In the future we will define successful MCCM implementation, based on objective measures of success such as enrollment, caregiver satisfaction (collected through a caregiver survey), rates of transition to Medicare hospice benefit (MHB), improvement in quality scores, or reductions in utilization and Medicare spending. We will identify characteristics in the survey associated with these outcome measures. At the time of this report, the most salient measure of success was enrollment, and the report examines characteristics of cohort 1 hospices with high versus low enrollment. Future reports will contain similar comparisons for other measures of model success.

This report includes some of the findings for the first wave of cohort 1 and 2 surveys. Future reports will include additional waves of cohort 1 and 2 data collection, as well as data from the comparison hospice surveys.

D.5 Organizational Survey Instruments – Wave 1

D.5.1 Cohort 1 Organizational Survey

MCCM Cohort 1 Organizational Survey

Evaluation of the CMS Medicare Care Choices Model

DIRECTIONS

This survey is intended to be completed by a staff member who is thoroughly familiar with the Medicare Care Choices Model (MCCM) being implemented in the hospice, as well as the care provided to patients receiving traditional hospice services. Some input on the survey may be required from traditional hospice staff. If you have any questions about who from the hospice is the most appropriate to respond to this survey, please contact MCCMEvaluation@abtassoc.com.

Please keep the following in mind as you complete the survey:

- Please read each question carefully and respond to the question by selecting the box next to the response that most closely represents your opinion.
- Please select only one box for each question, unless the question says to "Choose all that apply."
- The survey will take you about 30 minutes to complete.
- We ask that you complete this survey within 1 week of receiving your invitation email.
- If you do not have all the information needed to answer the survey questions, you can work with another colleague within the hospice to help answer the questions.
- If your colleague works in a different location, you can share the survey link with them. However, only one person can enter data into the survey at a time.
- The link provided to you functions on different devices; once information is saved by clicking "Back" or "Next", you will be able to access this information on any device through the original link.
- Use the survey's navigation buttons (Back and Next) to move through the survey. Your responses will be saved each time you press the Back or Next navigation buttons.
- The navigation bar at the bottom of the screen will give you an indication of how much of the survey you have left to complete.
- Before you exit, save any information entered by clicking "Back" or "Next" at the bottom of the screen. When you click the link and re-enter the survey, you should be directed to where you left off.
- When you reach the last question of the survey, you will see a “Submit” button.
- There is no confirmation warning after you press the “Submit” button. Therefore, do not press “Submit” until you are sure that you have completed all the survey questions.

If you have questions about this survey, please email MCCMEvaluation@abtassoc.com

Thank you for taking the time to complete the survey.

Allison J. Muma, MHA
Abt Associates Inc.

Project Director, MCCM Evaluation

As part of your MCCM participation agreement, you are being asked to respond to this web-based online survey about the Medicare Care Choices Model (MCCM) being implemented by the Centers for Medicare & Medicaid Services (CMS). As you know, the MCCM provides a new option for Medicare beneficiaries to receive select services from participating hospices while continuing to receive care for their terminal condition from providers in the community.

CMS has contracted with a team of independent researchers, led by Abt Associates, to evaluate the MCCM. This survey is part of the MCCM evaluation.

It should take approximately 30 minutes to complete the on-line survey.

Your involvement in this survey is required as a condition of participation in the MCCM; however, you may decline to answer any particular question you do not wish to answer for any reason.

Your responses will help CMS learn about implemented and planned efforts required for successful execution of the model. There are no foreseeable risks involved in participating in this survey.

Your survey responses will be sent directly to a database where data will be stored in a password protected electronic format. An aggregate report will be sent to CMS, and no information in the report will be attributed to you or your hospice. No one at CMS will be able to identify you or your answers.

If you have questions at any time about the survey or the MCCM evaluation, you may contact MCCMEvaluation@abtassoc.com. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this survey, you may do so by calling 1-877-520-6835 toll free.

You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that you have read and understand the above information.

☐ Agree (If a respondent does not agree to the consent, they will not be able to move forward in the survey)

Characteristics of the Survey Respondent

We would first like some brief information about the primary survey respondent.

1. What is your role in the MCCM? Please check all that apply.
   - □ MCCM Director/Project Manager/Program Lead
   - □ RN Care Coordinator
   - □ Direct care (nursing, aide, therapy)
   - □ Marketing
   - □ Social Work
   - □ QAPI Coordinator
   - □ Finance/Billing
   - □ Information Technology
   - □ Other (specify): _____
   - □ No role with the MCCM

2. What is your role in the traditional hospice? Please check the response that most closely represents your primary role in the hospice.
   - □ Chief Executive Officer (CEO)/President
   - □ Chief Financial Officer (CFO)
   - □ Chief Operating Officer (COO)
   - □ Hospice Director
   - □ Medical Director
   - □ Vice-President of Clinical Operations
   - □ Director of Marketing
   - □ Director of Quality Assurance and Performance Improvement
   - □ QAPI Coordinator
   - □ Direct care (nursing, aide, therapy)
   - □ Marketing
   - □ Social Work
   - □ Finance/Billing
   - □ Information Technology
   - □ Other: (specify) _____
   - □ No role with the traditional hospice

3. How many years have you been with this hospice? Please round to the closest whole number. If less than 6 months, please use "0".

		# Years with the hospice

Hospice Characteristics and Organization

We would like some background information about the hospice in which you work. Please respond with respect to the traditional hospice program, not the MCCM. If you do not have a role in the traditional hospice, or if you do not have knowledge about the characteristics and organization of the traditional hospice, it may be necessary to seek input on these questions from other hospice staff.

4. Please indicate the types of health care organizations the hospice has an affiliation or contract with. Check all that apply:
    - □ Hospital
    - □ Inpatient Rehabilitation Facility
    - □ Palliative Care Program
    - □ Nursing Facility/Skilled Nursing Facility
    - □ Home Health Agency
    - □ Assisted Living Community
    - □ Continuing Care Retirement Community
    - □ Personal Care Home
    - □ Medical Home
    - □ Physician practice
    - □ Other: _____
    - □ None of the above

5. Has this hospice been part of a merger, acquisition or change of ownership within the past two years?
    - □ Yes
    - □ No

6. Is the hospice currently participating in other payment models or payment demonstration programs, either at the federal or state level? Check all that apply:
    - □ Bundled payment programs
    - □ Preferred Provider Network
    - □ Shared savings programs
    - □ Accountable Care Organizations
    - □ Medical Home
    - □ Other: _____
    - □ Hospice is not participating in payment models/demonstrations other than MCCM

7. What type of medical record does the hospice utilize?
    - □ Electronic
    - □ Paper
    - □ Mix of electronic and paper

8. Please indicate the settings of care for which the hospice has access to medical record information. Please check one response column for each setting of care.

Setting of Care	Amount of Access		
	No Access	Some Access	Full Access
Hospital			
Inpatient Rehabilitation Facility			
Palliative Care Program			
Nursing Facility/Skilled Nursing Facility			
Home Health Agency			
Assisted Living Community			
Continuing Care Retirement Community			
Personal Care Home			
Medical Home			
Physician practice			
Other:			

9. How concerned is hospice leadership about staff turnover within the hospice?

- □ Not at all concerned
- □ Slightly concerned
- □ Moderately concerned
- □ Extremely concerned

Service Delivery in the Hospice Program Prior to Participating in MCCM

*The next set of questions focus on the traditional hospice services delivered **prior to the hospice participating in the Medicare Care Choices Model (MCCM).** As above, if you do not have a role in the traditional hospice, or if you do not have knowledge about service delivery in the traditional hospice outside of the MCCM, it may be necessary to seek input on these questions from other hospice staff.*

10. Prior to participating in the MCCM, did the hospice have special care ***programs*** (such as care algorithms or protocols) or special care ***teams*** for the management of the following medical conditions? For each medical condition, please select one response option.

Medical Condition	Availability of special care programs or special care teams			
	Hospice had special care ***programs*** prior to MCCM	Hospice had special care ***teams*** prior to MCCM	Hospice had ***both*** special care programs/teams special care teams prior to MCCM	Hospice had ***neither*** special care programs/special care teams prior to MCCM
Cancer				
CHF				

Medical Condition	Availability of special care programs or special care teams			
	Hospice had special care ***programs*** prior to MCCM	Hospice had special care ***teams*** prior to MCCM	Hospice had ***both*** special care programs/teams special care teams prior to MCCM	Hospice had ***neither*** special care programs/special care teams prior to MCCM
COPD				
HIV/AIDS				

11. Prior to participating in the MCCM, did the hospice enroll:
    a. Patients receiving chemotherapy?
        □ Yes
        □ No

    b. Patients receiving transfusions?
        □ Yes
        □ No

    c. Patients who might have needed an intrathecal catheter for pain or other symptom control?
        □ Yes
        □ No

    d. Patients who wished to continue to receive palliative radiation?
        □ Yes
        □ No

    e. Patients without family or other caregivers?
        □ Yes
        □ No

12. Prior to participating in the MCCM, did the hospice have a pre-hospice program or bridge program, to promote eventual hospice enrollment for persons with serious illnesses who either did not want to enroll in hospice or were not yet eligible for hospice?
    □ Yes
    □ No

13. Prior to participating in the MCCM, did the hospice have experience coordinating care with other health care providers whose goal of care is curative?
    □ Yes
    □ No

14. Prior to participating in the MCCM, did the traditional hospice program have a distinct admitting team whose function is to admit patients outside of normal business hours?
    - □ Yes
    - □ No

15. Prior to participating in the MCCM, did the traditional hospice program have capacity to call in staff in the event of a high number of calls outside of normal business hours?
    - □ Yes
    - □ No → Skip to Q17

16. Prior to participating in the MCCM, how did the hospice provide coverage when there was an unexpectedly high number of calls outside of normal business hours? Please check all that apply.
    - □ Called in full-time direct care staff to work overtime
    - □ Called in part-time direct care staff to work overtime
    - □ Called in per diem direct care staff
    - □ Utilized designated on-call direct care staff
    - □ Called in director-level staff to provide direct patient care
    - □ Reorganized and/or extended hours for previously-scheduled staff
    - □ None of the above

17. Prior to participating in the MCCM, for a traditional hospice team that focused on care of patients in their homes, please indicate the average daily assigned caseload for each of the following staff types (please round to the nearest whole number):

Hospice RN	☐☐☐
Social worker	☐☐☐
Pastoral Care/Chaplain	☐☐☐

Preparation to take on the MCCM model (Cohort 1)

*The next set of questions focuses on changes made by the hospice **to prepare for participation in the Medicare Care Choices Model (MCCM).** As above, if you do not have a role in the traditional hospice, or if you do not have knowledge about what the traditional hospice did to prepare for the MCCM, it may be necessary to seek input on these questions from other hospice staff.*

18. Did the hospice hire and/or reassign staff specifically for MCCM? Please check one response option for each staff type.

Staff type	Hospice hired for this position	Hospice reassigned existing resources for this position	Hospice both hired and reassigned existing staff for this position
RN			
LPN			
Nurse Practitioner			
RN care coordinator/case manager			
Nursing aide			
Social worker			
Physician			
Chaplain			
Bereavement counselor			
Administrative staff			
Marketing staff			
Other (specify):			

19. When did the hospice implement formal marketing efforts for MCCM? Please check only one response option.

- □ Prior to the start of cohort 1 (prior to January 1, 2016)
- □ Within one to three months after the start of cohort 1
- □ More than three months after the start of cohort 1
- □ Other (specify): _____

20. Please indicate the audience for **initial** MCCM marketing and/or education efforts. For each row, check all settings that apply. If the MCCM did not intend to initially market to a particular audience, please check the far right column.

Audience	Setting of Care				
	In hospitals	In physician practices	In home health agencies	In other settings	Did not market MCCM to this audience
Patients					
Family caregivers					
Physicians					
Nursing staff					
Social workers					
Discharge planners					
Palliative care teams					

Audience	Setting of Care				
	In hospitals	In physician practices	In home health agencies	In other settings	Did not market MCCM to this audience
Pastoral staff/chaplains					
Finance staff					
Other (specify):					

21. In what areas did the hospice make changes to business and/or clinical operations to accommodate the MCCM? Check all that apply.

- □ Patient intake processes
- □ Patient care protocols
- □ Care coordination for the provision of therapy services (PT, ST, OT)
- □ Coordination of durable medical equipment (DME)
- □ Medical records
- □ Data collection/reporting
- □ Information Technology
- □ Marketing/Public Relations
- □ Billing/Finance
- □ Quality Assurance and Performance Improvement
- □ Other (specify): _____
- □ None of the above

22. How difficult was it for the hospice to change practices related to receiving and/or acting on referrals in preparation for participation in the MCCM?

- □ Very difficult
- □ Slightly difficult
- □ Not difficult
- □ The hospice did not change practices related to receiving and/or acting on referrals

23. Indicate changes related to receiving and acting on referrals the hospice made in preparation for participation in the MCCM.

	No changes	Changes implemented for ***MCCM patients***	Changes implemented for ***traditional hospice patients***	Changes implemented for ***both MCCM and traditional hospice patients***
Process for ***receiving*** referrals	☐	☐	☐	☐
Timing of response to referrals	☐	☐	☐	☐
Staff involved in responding to referrals	☐	☐	☐	☐
Process for ***responding*** to referrals	☐	☐	☐	☐
Communication to the referring entity following a referral	☐	☐	☐	☐
Other (specify): _____	☐	☐	☐	☐

24. For each type of training listed below, please indicate whether that training was provided to staff in preparation for MCCM, and who provided the training. If the training was not provided to staff, please check the column "Training not provided." For each training topic, check all columns that apply.

Training Topics	Provided by the hospice	Provided by CMMI or the MCCM Implementation Contractor	Provided by another source	Training not provided
MCCM eligibility	□	□	□	□
MCCM marketing and outreach	□	□	□	□
MCCM enrollment strategies	□	□	□	□
MCCM billing processes	□	□	□	□
Using the MCCM portal	□	□	□	□
Coordination of palliative and curative care	□	□	□	□
Delivery of clinical services in the home	□	□	□	□
Quality Assurance and Performance Improvement (QAPI)	□	□	□	□
Other (specify): _____	□	□	□	□

Service Delivery in MCCM

*The following set of questions focus on **services provided through the MCCM** rather than through the traditional hospice.*

25. What are key features of the MCCM that are used to describe the benefits of the model to potential enrollees and/or their caregivers? Check all that apply.
    - □ Help with disease and symptom management
    - □ Support when making complex medical decisions
    - □ Additional patient and family support
    - □ Coordination of care with other medical professionals
    - □ 24/7 access to hospice staff
    - □ Extra symptom support,
    - □ Continued focus on treatments that may extend life
    - □ Other: _____

26. Does the traditional hospice program operate/affiliate with a ***hospital-based palliative care program*** that refers patients into MCCM?
    - □ Yes
        a. Does the hospice share staff with the hospital-based palliative care program?
            - □ Yes
            - □ No
    - □ No

27. Does the traditional hospice program operate/affiliate with a ***community-based palliative care program*** that refers patients into MCCM?
    - □ Yes, the traditional hospice program operates/affiliates with a community-based palliative care program
        a. Does the hospice share staff with the community-based palliative care program?
            - □ Yes
            - □ No
    - □ No, the traditional hospice program does not operate/affiliate with a community-based palliative care program

28. The Medicare certification number (CCN) associated with your MCCM model is XXXXXX.
    a. How many physical hospice locations are covered by that certification number? A physical location can be an inpatient unit or a hospice office. For example, if a hospice organization includes 1 inpatient unit and 2 home hospice offices, the response to this question would be "3".

       ☐☐ # hospice locations

    b. How many physical locations under that CCN are participating in MCCM?

       ☐☐ # hospice locations participating in MCCM

29. Which factors were most important when deciding about locations to target for the MCCM? Please rank order from most important to least important (via drag and drop similar to Q42 below)

    - □ Commitment level to participate in MCCM by usual hospice referral sources in that location
    - □ Number of patients with MCCM diagnoses (cancer, COPD, CHF, HIV/AIDS) in that location
    - □ Desire to serve an underserved population
    - □ Proximity of palliative care programs to that location
    - □ Proximity of hospice staff to that location
    - □ Other (please specify) _____

    From which counties in (name of state associated with CCN) does the hospice recruit for the MCCM? Select all that apply. [A list of all counties within the state will automatically populate]

30. Does the hospice recruit for MCCM from states other than (name of state associated with CCN)?

    - □ Yes
        1) Please select the additional states and counties from which the hospice recruits for the MCCM. Select all that apply. [A list of neighboring states will be displayed; after the respondent selects a state(s), the counties within the selected state(s) will automatically populate]
    - □ No

32. Is the MCCM RN care coordinator/case manager dedicated to MCCM only or shared with other traditional hospice programs?
    - □ Dedicated to MCCM only
    - □ Shared with other traditional hospice programs
    - □ Unsure

33. Is there a process in place to provide and receive information from physicians, specialists and their staff outside the hospice program or MCCM who see MCCM patients?
    - □ Yes
        a. How is communication between the physician and the MCCM accomplished? Check all that apply.
            - □ Written communication
            - □ Direct phone call
            - □ Email
            - □ Electronic medical record
            - □ Encrypted fax
            - □ Other (specify): _____
    - □ No

34. Does the hospice typically know if an MCCM patient is hospitalized?
    - □ Yes
    - □ No (skip to Q37)

35. If an MCCM patient is hospitalized, how often does a staff member from the hospice visit that patient in the hospital?
    - □ Every day
    - □ Every other day
    - □ Only when needed
    - □ Other (specify): _____

36. If an MCCM patient is hospitalized, how often does the hospice request updates from the hospital or the primary physician on the patient's condition?
    - □ Every day
    - □ Every other day
    - □ At discharge
    - □ Only when needed
    - □ Other (specify): _____

37. Does the hospice typically know if an MCCM patient has gone to an emergency department (ED)?
    - □ Yes
        i. Who informs the hospice of the ED visit by the MCCM patient?
            - □ ED staff
            - □ Primary physician
            - □ The patient or their caregiver
    - □ No

38. Has the hospice incorporated MCCM into its Quality Assurance and Performance Improvement (QAPI) program?
    - □ Yes
    - □ No

39. What feedback on care processes and outcomes is provided to the MCCM staff? Check all that apply.
    - □ Provision of disease and symptom management
    - □ Provision of advance care planning
    - □ Transition of patients to the Medicare hospice benefit (MHB)
    - □ Emergency department visits
    - □ Coordination with providers/staff outside the hospice
    - □ Hospitalizations
    - □ Patient satisfaction
    - □ Family satisfaction
    - □ Medication errors
    - □ Other _____
    - □ None of the above

40. To date, how successful is the MCCM model with respect to each of the following aspects of patient recruitment? Please check one response for each row.

Recruitment aspect	Degree of Success				
	Not at all successful	Slightly successful	Moderately successful	Very successful	Extremely successful
Identifying referral sources					
Buy-in from referring providers					
Identifying eligible beneficiaries					
Patient/family buy-in					
Referral to MHB enrollment/ conversion rate					

Impacts of MCCM and Lessons Learned

Lastly, we would like to ask some questions about the potential impact of the MCCM and lessons learned to date through participating in the model.

41. Please indicate the impact you believe MCCM is having on the following aspects of care. Please check only one response for each row.

Aspect of Care	**Level of Impact**			
	No impact	**Minor impact**	**Moderate impact**	**Major Impact**
Disease and symptom management	☐	☐	☐	☐
Advance care planning	☐	☐	☐	☐
Clarification of patient preferences that result in Do Not Resuscitate order	☐	☐	☐	☐
Clarification of patient preferences that results in Do Not Hospitalize order	☐	☐	☐	☐
Coordination of care among the referring physician and MCCM staff	☐	☐	☐	☐
Transitions from the hospital or other inpatient setting.	☐	☐	☐	☐
Support to the patient and their caregivers	☐	☐	☐	☐
Timing of referral to hospice	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐

42. Considering potential challenges to implementing and sustaining the MCCM model, prioritize the following challenges from highest to lowest by dragging and dropping each challenge to the column on the right.

    - □ Consumers and/or health care providers lack an understanding of the difference between MCCM and the traditional hospice
    - □ Getting the primary physician to sign the Certificate of Terminal Illness (CTI) can be difficult
    - □ The eligibility requirements restrict access to the MCCM for certain patients who might benefit from the Model (specify): _____
    - □ Coordinating care across health care settings consumes significant staff time
    - □ The monthly per patient payment is not commensurate with the costs of providing MCCM services
    - □ Staff training needs are very different for MCCM than for traditional hospice care

43. Please describe actual or potential unintended consequences (either positive or negative) for patients or the hospices that are associated with the MCCM.

    _____
    _____
    _____
    _____

44. Please provide suggestions for CMS on changes that can be made to MCCM to improve enrollment of patients.

    _____
    _____
    _____

45. Is there anything else you would like to tell us about the MCCM?

    _____
    _____
    _____

D.5.2 Cohort 2 Organizational Survey

MCCM Cohort 2 Organizational Survey

Evaluation of the CMS Medicare Care Choices Model

DIRECTIONS

This survey is intended to be completed by a staff member who is thoroughly familiar with the Medicare Care Choices Model (MCCM) to be implemented in the hospice beginning in January 2018, as well as the care provided to patients receiving traditional hospice services. Some input on the survey may be required from traditional hospice staff. If you have any questions about who from the hospice is the most appropriate to respond to this survey, please contact MCCMEvaluation@abtassoc.com.

Please keep the following in mind as you complete the survey:

- Please read each question carefully and respond to the question by selecting the box next to the response that most closely represents your opinion.
- Please select only one box for each question, unless the question says to "Choose all that apply."
- The survey will take approximately 30 minutes to complete.
- Please complete this survey within 1 week of receiving the invitation email.
- If you do not have all the information needed to answer the survey questions, you can work with another colleague within the hospice to help answer the questions.
- If your colleague works in a different location, you can share the survey link with them. However, only one person can enter data into the survey at a time.
- The link provided to you functions on different devices; once information is saved by clicking "Back" or "Next", you will be able to access this information on any device through the original link.
- Use the survey's navigation buttons (Back and Next) to move through the survey. Your responses will be saved each time you press the Back or Next navigation buttons.
- The navigation bar at the bottom of the screen will give you an indication of how much of the survey you have left to complete.
- Before you exit, save any information entered by clicking "Back" or "Next" at the bottom of the screen. When you click the link and re-enter the survey, you should be directed to where you left off.
- When you reach the last question of the survey, you will see a “Submit” button.
- There is no confirmation warning after you press the “Submit” button. Therefore, do not press “Submit” until you are sure that you have completed all the survey questions.

If you have questions about this survey, please email MCCMEvaluation@abtassoc.com

Thank you so much for taking the time to complete the survey.

Allison J. Muma, MHA

Abt Associates Inc.

Project Director, MCCM Evaluation

As part of your MCCM participation agreement, you are being asked to respond to this web-based online survey about the Medicare Care Choices Model (MCCM) being implemented by the Centers for Medicare & Medicaid Services (CMS). As you know, the MCCM provides a new option for Medicare beneficiaries to receive select services from participating hospices while continuing to receive care for their terminal condition from providers in the community.

CMS has contracted with a team of independent researchers, led by Abt Associates, to evaluate the MCCM. This survey is part of the MCCM evaluation.

It should take approximately 30 minutes to complete the on-line survey, and your involvement in this survey is required as a condition of participation in the MCCM.

Your responses will help CMS learn about implemented and planned efforts required for successful execution of the model. There are no foreseeable risks involved in participating in this survey.

Your survey responses will be sent directly to a database where data will be stored in a password protected electronic format. An aggregate report will be sent to CMS, and no information in the report will be attributed to you or your hospice. No one at CMS will be able to identify you or your answers.

If you have questions at any time about the survey or the MCCM evaluation, you may contact MCCMEvaluation@abtassoc.com. If you would like to contact the Abt Associates Institutional Review Board with any questions or concerns about this survey, you may do so by calling 1-877-520-6835 toll free.

You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that you have read and understand the above information.

☐ Agree (If a respondent does not agree to the consent, they will not be able to move forward in the survey)

Characteristics of the Survey Respondent

We would first like some brief information about the primary survey respondent.

1. What is your expected role in the MCCM? Please check all that apply.

   - □ MCCM Director/Project Manager/Program Lead
   - □ RN Care Coordinator
   - □ Direct care (nursing, aide, therapy)
   - □ Marketing
   - □ Social Work
   - □ QAPI Coordinator
   - □ Finance/Billing
   - □ Information Technology
   - □ Other (specify): _____
   - □ No role with the MCCM

2. What is your role in the traditional hospice? Please check the response that most closely represents your primary role in the hospice.

   - □ Chief Executive Officer (CEO)/President
   - □ Chief Financial Officer (CFO)
   - □ Chief Operating Officer (COO)
   - □ Hospice Director
   - □ Medical Director
   - □ Vice-President of Clinical Operations
   - □ Director of Marketing
   - □ Director of Quality Assurance and Performance Improvement
   - □ QAPI Coordinator
   - □ Direct care (nursing, aide, therapy)
   - □ Marketing
   - □ Social Work
   - □ Finance/Billing
   - □ Information Technology
   - □ Other: (specify) _____
   - □ No role with the traditional hospice

3. How many years have you been with this hospice? Please round to the closest whole number. If less than 6 months, please use "0".

		# Years with the hospice

Hospice Characteristics and Organization

We would like some background information about the hospice in which you work. Please respond with respect to the traditional hospice program, not the MCCM. If you do not have a role in the traditional hospice, or if you do not have knowledge about the characteristics and organization of the traditional hospice, it may be necessary to seek input on these questions from other hospice staff.

4. Please indicate the types of health care organizations the hospice has an affiliation or contract with. Check all that apply:
    - □ Hospital
    - □ Inpatient Rehabilitation Facility
    - □ Palliative Care Program
    - □ Nursing Facility/Skilled Nursing Facility
    - □ Home Health Agency
    - □ Assisted Living Community
    - □ Continuing Care Retirement Community
    - □ Personal Care Home
    - □ Medical Home
    - □ Physician practice
    - □ Other: _____
    - □ None of the above

5. Has this hospice been part of a merger, acquisition or change of ownership within the past two years?
    - □ Yes
    - □ No

6. Is the hospice currently participating in other payment models or payment demonstration programs, either at the federal or state level? Check all that apply:
    - □ Bundled payment programs
    - □ Preferred Provider Network
    - □ Shared savings programs
    - □ Accountable Care Organizations
    - □ Medical Home
    - □ Other: _____
    - □ Hospice is not participating in payment models/demonstrations other than MCCM

7. What type of medical record does the hospice utilize?
    - □ Electronic
    - □ Paper
    - □ Mix of electronic and paper

8. Please indicate the settings of care for which the hospice has access to medical record information. Please check one response column for each setting of care.

Setting of Care	Amount of Access		
	No Access	Some Access	Full Access
Hospital			
Inpatient Rehabilitation Facility			
Palliative Care Program			
Nursing Facility/Skilled Nursing Facility			
Home Health Agency			
Assisted Living Community			
Continuing Care Retirement Community			
Personal Care Home			
Medical Home			
Physician practice			
Other:			

9. How concerned is hospice leadership about staff turnover within the hospice?

   □ Not at all concerned

   □ Slightly concerned

   □ Moderately concerned

   □ Extremely concerned

Service Delivery in the Current Hospice Program

The next set of questions focus on the traditional hospice services delivered ***prior to the hospice participating in the Medicare Care Choices Model (MCCM).*** *As above, if you do not have a role in the traditional hospice, or if you do not have knowledge about service delivery in the traditional hospice outside of the MCCM, it may be necessary to seek input on these questions from other hospice staff.*

10. Does the hospice currently have special care ***programs*** (such as care algorithms or protocols) or special care ***teams*** for the management of the following medical conditions? For each medical condition, please select one response option.

Medical Condition	Availability of special care programs or special care teams			
	Hospice currently has special care ***programs***	Hospice currently has special care ***teams***	Hospice currently has ***both*** special care programs/teams special care teams	Hospice currently has ***neither*** special care programs/special care teams
Cancer				
CHF				
COPD				
HIV/AIDS				

11. Does the hospice currently enroll:
    a. Patients receiving chemotherapy?
        □ Yes
        □ No
    b. Patients receiving transfusions?
        □ Yes
        □ No
    c. Patients who might have needed an intrathecal catheter for pain or other symptom control?
        □ Yes
        □ No
    d. Patients who wished to continue to receive palliative radiation?
        □ Yes
        □ No
    e. Patients without family or other caregivers?
        □ Yes
        □ No

12. Does the hospice currently have a pre-hospice program or bridge program, to promote eventual hospice enrollment for persons with serious illnesses who either did not want to enroll in hospice or were not yet eligible for hospice?

    □ Yes

    □ No

13. Does the hospice currently have experience coordinating care with other health care providers whose goal of care is treatment of terminal medical conditions?

    □ Yes

    □ No

14. Does the traditional hospice program have a distinct admitting team whose function is to admit patients outside of normal business hours?

    □ Yes

    □ No

15. Does the traditional hospice program have capacity to call in staff in the event of a high number of calls outside of normal business hours?

    □ Yes

    □ No → Skip to Q17

16. How does the hospice provide coverage when there is an unexpectedly high number of calls outside of normal business hours? Please check all that apply.

    □ Call in full-time direct care staff to work overtime

    □ Call in part-time direct care staff to work overtime

    □ Call in per diem direct care staff

    □ Utilize designated on-call direct care staff

    □ Call in director-level staff to provide direct patient care

    □ Reorganize and/or extend hours for previously-scheduled staff

    □ None of the above

17. For a traditional hospice team that focuses on care of patients in their homes, please indicate the average daily assigned caseload for each of the following staff types (please round to the nearest whole number):

    Hospice RN | | | |

    Social worker | | | |

    Pastoral Care/Chaplain | | | |

Preparation to take on the MCCM model (Cohort 2)

*The next set of questions focuses on anticipated changes to be made by the hospice **in preparation for participation in the Medicare Care Choices Model (MCCM).** As above, if you do not have a role in the traditional hospice, or if you do not have knowledge about what the traditional hospice is doing to prepare for the MCCM, it may be necessary to seek input on these questions from other hospice staff.*

18. Does the hospice plan to hire and/or reassign staff specifically for MCCM? Please check one response option for each staff type.

Staff type	Hospice will hire for this position	Hospice will reassign existing resources for this position	Hospice will both hire and reassign existing resources for this position
RN			
LPN			
Nurse Practitioner			
RN care coordinator/case manager			
Nursing aide			
Social worker			
Physician			
Chaplain			
Bereavement counselor			
Administrative staff			
Marketing staff			
Other (specify):			

19. When does the hospice anticipate implementing formal marketing efforts for MCCM? Please check only one response option.

    □ Prior to the start of cohort 2 (prior to January 1, 2018)
    □ Within one to three months after the start of cohort 2
    □ More than three months after the start of cohort 2
    □ Other (specify): _____

20. Please indicate the audience for planned MCCM marketing and/or education efforts. For each row, check all settings that may apply. If the MCCM does not anticipate marketing to a particular audience, please check the far right column in that row.

Audience	Setting of Care				
	In hospitals	In physician practices	In home health agencies	In other settings	Will not market MCCM to this audience
Patients					
Family caregivers					
Physicians					
Nursing staff					
Social workers					
Discharge planners					
Palliative care teams					
Pastoral staff/chaplains					
Finance staff					
Other (specify):					

21. In what areas does the hospice anticipate making changes to business and/or clinical operations to accommodate the MCCM? Check all that apply.

    □ Patient intake processes
    □ Patient care protocols
    □ Care coordination for the provision of therapy services (PT, ST, OT)
    □ Coordination of durable medical equipment (DME)
    □ Medical records
    □ Data collection/reporting
    □ Information Technology
    □ Marketing/Public Relations

- □ Billing/Finance
- □ Quality Assurance and Performance Improvement
- □ Other (specify): _____
- □ None of the above

22. Indicate changes related to receiving and acting on referrals the hospice anticipates making in preparation for the MCCM.

	No changes expected	Changes expected for ***MCCM patients***	Changes expected for ***traditional hospice patients***	Changes expected for ***both MCCM and traditional hospice patients***
Process for ***receiving*** referrals	☐	☐	☐	☐
Timing of response to referrals	☐	☐	☐	☐
Staff involved in responding to referrals	☐	☐	☐	☐
Process for ***responding*** to referrals	☐	☐	☐	☐
Communication to the referring entity following a referral	☐	☐	☐	☐
Other (specify): _____	☐	☐	☐	☐

23. For each of the topics listed below, please indicate whether you anticipate training will be provided to staff in preparation for MCCM, and who you anticipate will provide the training. If you don't anticipate training on a specific topic will be provided to hospice/MCCM staff, please check the box in the column "Training not anticipated to be provided." For each training topic, check all columns that apply.

Training Topics	Provided by the hospice	Provided by CMMI or the MCCM Implementation Contractor	Provided by another source	Training not anticipated to be provided
MCCM Eligibility	☐	☐	☐	☐
MCCM marketing and outreach to physicians	☐	☐	☐	☐
MCCM enrollment Strategies	☐	☐	☐	☐
MCCM billing processes	☐	☐	☐	☐
Using the MCCM portal	☐	☐	☐	☐
Coordination of palliative and curative care	☐	☐	☐	☐

Training Topics	Provided by the hospice	Provided by CMMI or the MCCM Implementation Contractor	Provided by another source	Training not anticipated to be provided
Delivery of clinical services in the home	☐	☐	☐	☐
Quality Assurance and Performance Improvement (QAPI)	☐	☐	☐	☐
Other (specify): _____	☐	☐	☐	☐

Service Delivery in MCCM

*The following set of questions focuses on **services that will be provided through the MCCM** rather than through the traditional hospice.*

24. What are key features of the MCCM that will be used to describe the benefits of the model to potential enrollees and/or their caregivers? Check all that apply.

- □ Help with disease and symptom management
- □ Support when making complex medical decisions
- □ Additional patient and family support
- □ Coordination of care with other medical professionals
- □ 24/7 access to hospice staff
- □ Extra symptom support,
- □ Continued focus on treatments that may extend life
- □ Other: _____

25. Does the traditional hospice program operate/affiliate with a ***hospital-based palliative care program*** that may be able to refer patients into MCCM?

- □ Yes
  - a. Does the hospice share staff with the hospital-based palliative care program?
    - □ Yes
    - □ No
- □ No

26. Does the traditional hospice program operate/affiliate with a ***community-based palliative care program*** that may be able to refer patients into MCCM?

    □ Yes, the traditional hospice program operates/affiliates with a community-based palliative care program

        a. Does the hospice share staff with the community-based palliative care program?

            □ Yes
            □ No

    □ No, the traditional hospice program does not operate/affiliate with a community-based palliative care program

27. The Medicare certification number (CCN) associated with your MCCM model is XXXXXX.

    a. How many physical hospice locations are covered by that certification number? A physical location can be an inpatient unit or a hospice office. For example, if a hospice organization includes 1 inpatient unit and 2 home hospice offices, the response to this question would be "3".

		# hospice locations

    b. How many physical locations under that CCN do you anticipate will be participating in MCCM?

		# hospice locations anticipates to be participating in MCCM

28. Which factors were/will be most important when deciding about locations to target for the MCCM? Please rank order from most important to least important (via drag and drop similar to Q42 below)

    □ Commitment level to participate in MCCM by usual hospice referral sources in that location
    □ Number of patients with MCCM diagnoses (cancer, COPD, CHF, HIV/AIDS) in that location
    □ Desire to serve an underserved population
    □ Proximity of palliative care programs to that location
    □ Proximity of hospice staff to that location
    □ Other (please specify) _____

29. From which counties in (name of state associated with CCN) does the hospice anticipate recruiting for the MCCM? Select all that apply. [A list of all counties within the state will automatically populate]

30. Does the hospice anticipate recruiting for MCCM from states other than (name of state associated with CCN)?
    - □ Yes
        1) Please select the additional states and counties from which the hospice anticipates recruiting for the MCCM. Select all that apply. [A list of neighboring states will be displayed; after the respondent selects a state(s), the counties within the selected state(s) will automatically populate]
    - □ No

31. Do you anticipate that the MCCM RN care coordinator will be dedicated to MCCM only or shared with other traditional hospice programs?

    - □ Dedicated to MCCM only
    - □ Shared with other hospice programs
    - □ Unsure

32. Does the hospice plan to implement a process to provide and receive information from physicians, specialists and their staff outside the hospice program who see MCCM patients?

    - □ Yes
        a. How will communication between the physician/specialist and MCCM staff be accomplished? Check all that apply.
            - □ Written communication
            - □ Direct phone call
            - □ Email
            - □ Electronic medical record
            - □ Encrypted fax
            - □ Other (specify): _____
    - □ No

33. If an MCCM patient is hospitalized, how often do you anticipate a staff member from the hospice will visit that patient in the hospital?

    - □ Every day
    - □ Every other day
    - □ Only when needed
    - □ Other (specify): _____

34. If an MCCM patient is hospitalized, how often do you anticipate staff will request updates from the hospital or the primary physician on the patient's condition?

    - □ Every day
    - □ Every other day
    - □ At discharge
    - □ Only when needed
    - □ Other (specify): _____

35. Do you anticipate that the hospice will incorporate MCCM into its Quality Assurance and Performance Improvement (QAPI) program?

    - □ Yes
    - □ No

36. What feedback on care processes and outcomes is anticipated to be provided to the MCCM staff? Check all that apply.

    - □ Provision of disease and symptom management
    - □ Provision of advance care planning
    - □ Transition of patients to the Medicare Hospice Benefit
    - □ Emergency Department visits
    - □ Coordination with providers/staff outside the hospice
    - □ Hospitalizations
    - □ Patient satisfaction
    - □ Family satisfaction
    - □ Medication errors
    - □ Other _____
    - □ None of the above

Impacts of MCCM and Lessons Learned

Lastly, we would like to ask some questions about the potential impact of the MCCM.

37. Please indicate the impact you believe MCCM may have on the following aspects of care. Please check only one box for each row.

Aspect of Care	Anticipated Level of Impact			
	No impact	Minor impact	Moderate impact	Major Impact
Disease and symptom management	☐	☐	☐	☐
Advance care planning	☐	☐	☐	☐
Clarification of patient preferences that result in Do Not Resuscitate order	☐	☐	☐	☐
Clarification of patient preference that results in Do Not Hospitalize Order	☐	☐	☐	☐
Coordination of care among the referring physician and MCCM staff	☐	☐	☐	☐
Transitions from the hospital or other inpatient setting.	☐	☐	☐	☐
Support to the patient and their family	☐	☐	☐	☐
Timing of referral to hospice	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐

38. Do you have suggestions for CMS on changes that should be made to the MCCM prior to the start of cohort 2?

_____

_____

_____

39. Is there anything else you would like to tell us about the MCCM?

_____

_____

_____

Technical Appendix E: Additional Quantitative Tables

This appendix contains quantitative tables that provide additional detail beyond what is included in the main body of the report. In each subsection, we identify the corresponding section in the report. That is, E.2 corresponds to Section 2 of the report, E.3 corresponds to Section 3 of the report, E.4 corresponds to Section 4 of the report, and E.6 corresponds to Section 6 of the report. Sections 5 and 7 of the report did not have any appendix tables associated with them and therefore a corresponding appendix section is not included in Appendix E.

We provide specifications for all measures in Appendix A, Section A.5 of this report.

E.2 Who Participates in MCCM?

Section 2 of the report presents information on the number and location of hospices participating in MCCM (Section 2.1.1), the characteristics of those participating hospices (Section 2.1.3), and demographic and clinical characteristics of the Medicare beneficiaries that enrolled in MCCM, compared with beneficiaries nationwide who would otherwise have been eligible for MCCM but did not enroll (see Section 2.3.1).

Exhibit E.1 lists the MCCM cohort, name, city, state, and withdrawal date (where applicable) of the original hospices selected for participation in MCCM. Exhibit E.2 presents information on reasons for hospices withdrawing from MCCM. Exhibit E.3 and E.4 present additional hospice characteristics, to supplement the findings described in the report. Exhibit E.5 presents information on enrollment challenges that hospices experienced. Exhibit E.6, Exhibit E.7, and Exhibit E.8 present additional beneficiary characteristics, to supplement the findings in the report on MCCM enrollees including demographics, clinical characteristics, and social support. Exhibit E.9 compares additional characteristics (geography, hierarchical condition category (HCC) score) of MCCM enrollees and non-enrollees.

Exhibit E.1: Original MCCM Participant List

Cohort	Hospice Name	City	State	Withdrawal Effective Date
1	Addison County Home Health & Hospice, Inc.	New Haven	VT	
1	Amedisys Hospice LLC	Florence	SC	
1	Assisted HomeCare Inc.	Northridge	CA	
1	Bayada Home Health Care, Inc.	Norwich	VT	
1	C&L Esperanza Home Health, Inc.	Arlington	TX	
1	Caledonia Home Health Care	Saint Johnsbury	VT	
1	Care Dimensions, Inc.	Danvers	MA	
1	CareChoices Hospice and Palliative Care Services, Inc.	Irvine	CA	
1	Catholic Hospice, Inc.	Miami Lakes	FL	
1	Central Vermont Home Health and Hospice	Barre	VT	
1	Community Home Health Services, Inc.	Fishers	IN	
1	Community Hospice of Northeast Florida, Inc.	Jacksonville	FL	
1	Compassionate Care Hospice of Northern GA, LLC	Athens	GA	
1	Comprehensive Community Hospice Program of Parker Jewish Institute	New Hyde Park	NY	
1	Covenant Hospice, Inc.	Pensacola	FL	
1	Delaware Hospice, Inc. - Central Division	Dover	DE	
1	Gilchrist Hospice Care, Inc.	Hunt Valley	MD	
1	Hospice and Community Care	Lancaster	PA	
1	Hospice of Central Pennsylvania	Harrisburg	PA	
1	Hospice of Dayton	Dayton	OH	
1	Hospice of Northwest Ohio	Perrysburg	OH	
1	Hospice of Siouxland	Sioux City	IA	
1	Hospice of Surry County Inc.	Mount Airy	NC	
1	Hospice of the Bluegrass	Lexington	KY	
1	Hospice of the Twin Cities Inc.	Minneapolis	MN	
1	Hospice of the Valley, Inc.	Youngstown	OH	
1	Hospice of Wake County Inc.	Raleigh	NC	
1	Indiana University Health Inc.	Indianapolis	IN	
1	Iowa City Hospice	Iowa City	IA	
1	JourneyCare	Barrington	IL	
1	Kalispell Regional Medical Center	Kalispell	MT	
1	Mercy Health Partners-Lourdes Inc.	Paducah	KY	
1	Midland Care Connection, Inc.	Topeka	KS	
1	Mount Carmel Health System	Columbus	OH	
1	Nathan Adelson Hospice	Las Vegas	NV	
1	North Central Florida Hospice	Gainesville	FL	
1	Orleans/Essex VNA & Hospice Inc.	Newport	VT	
1	Sea Crest Hospice Services Inc.	Costa Mesa	CA	
1	Spectrum Health Hospice & Palliative Care	Grand Rapids	MI	
1	SSM Health Businesses	Lake Saint Louis	MO	
1	St. Joseph Hospice of Cenla, LLC	Alexandria	LA	

Cohort	Hospice Name	City	State	Withdrawal Effective Date
1	St. Joseph Hospice, LLC	Baton Rouge	LA	
1	St. Joseph Medical Center OSF Hospice - Eastern Region	Normal	IL	
1	St. Luke's Hospice	Boise	ID	
1	The Hospice of Martin & St Lucie Inc.	Stuart	FL	
1	Unity Limited Partnership	De Pere	WI	
1	Unity Point at Home	Fort Dodge	IA	
1	UTMC Home Care Services Hospice	Knoxville	TN	
1	Visiting Nurse & Hospice Home	Fort Wayne	IN	
1	Visiting Nurse Association of Englewood Hospice (Part of VNA of Central Jersey)	Englewood	NJ	
1	VNA of Chittenden & Grand Isle Counties	Colchester	VT	
1	Hospice of Michigan	Ada	MI	5/26/2015
1	Hospice of Michigan	Gaylord	MI	5/26/2015
1	HopeHealth, Inc.	Hyannis	MA	10/29/2015
1	Carilion Franklin Memorial Hospital	Rocky Mount	VA	7/24/2015
1	Hospice of Henderson County, Inc.	Flat Rock	NC	11/27/2015
1	Hospice of Cabarrus County	Kannapolis	NC	1/11/2016
1	Hospice Advantage LLC	Bay City	MI	4/22/2016
1	Blanchard Valley Home Care Services LLC	Findlay	OH	6/9/2016
1	Neighborhood Visiting Nurse Association dba Neighborhood Health	West Chester	PA	2/12/2017
1	Fairview Home Care and Hospice, Inc.	Minneapolis	MN	3/18/2017
1	Lamoille Home Health Agency Inc.	Morrisville	VT	5/7/2017
1	Providence Health & Services	Portland	OR	5/13/2017
1	Alive Hospice, Inc.	Nashville	TN	7/27/2017
1	FalconSouth Plains Hospice LP	Lubbock	TX	10/1/2017
1	Coastal Hospice Inc.	Salisbury	MD	11/11/2017
1	Great Lakes Home Health Services Inc.	Jackson	MI	11/12/2017
1	Southwestern Vermont Hospice Network	Rutland	VT	11/19/2017
1	Regional Hospice and Home Care of Western Connecticut	Danbury	CT	12/14/2017
1	Yakima Valley Memorial Hospital Association	Yakima	WA	2/27/2018
1	Summa Health At Home Hospice Services	Akron	OH	5/13/2018
2	Alliance Health Services, Inc.	Memphis	TN	
2	Assisted HomeCare Inc.	Ventura	CA	
2	Aultman Hospital	Canton	OH	
2	Capital Hospice	Falls Church	VA	
2	Cedar Valley Hospice	Waterloo	IA	
2	Compassionate Care Hospice of Marlton	Westampton	NJ	
2	Compassionate Care Hospice of the Midwest LLC	Sioux Falls	SD	
2	Cross Timbers Hospice Inc.	Ardmore	OK	
2	Delaware Hospice, Inc. Southern Division	Milford	DE	
2	Douglas County Visiting Nurses Association	Lawrence	KS	
2	Edward W. Sparrow Hospital Association	Lansing	MI	
2	Franklin County Home Health & Hospice	St. Albans City	VT	

Cohort	Hospice Name	City	State	Withdrawal Effective Date
2	Genesis Health System	Bettendorf	IA	
2	Good Shepherd Hospice	Farmingdale	NY	
2	Hope Hospice and Community Services Inc.	Fort Myers	FL	
2	HopeWest	Grand Junction	CO	
2	Hospice Alliance, Inc.	Pleasant Prairie	WI	
2	Hospice of Iredell County	Statesville	NC	
2	Hospice of Spokane	Spokane	WA	
2	Hospice of Surry County, Inc.	Hillsville	VA	
2	Hospice of the Bluegrass	Hazard	KY	
2	Hospice of the Chesapeake, Inc.	Pasadena	MD	
2	Hospice of the Valley-Central	Phoenix	AZ	
2	Interim Health Care of Wichita Inc.	Wichita	KS	
2	Jewish Association on Aging	Pittsburgh	PA	
2	Kaua'i Hospice	Lihue	HI	
2	LifePath Hospice Inc.	Tampa	FL	
2	MemorialCare Hospice and Palliative Services	Laguna Hills	CA	
2	Mercy Hospital Jefferson	Crystal City	MO	
2	Meridian Home Care Services Inc.	Neptune	NJ	
2	Notre Dame Health Care, Inc.	Worcester	MA	
2	Partners in Home Care, Inc.	Missoula	MT	
2	Robert Wood Johnson Visiting Nurse, Inc.	North Brunswick	NJ	
2	Saint Francis Medical Center	Peoria	IL	
2	Saint Luke's Health System Home Care and Hospice	Kansas City	MO	
2	Sioux Valley Memorial Hospital Association	Cherokee	IA	
2	SSM Health at Home Hospice	Madison	WI	
2	SSM Health Businesses	Maryville	MO	
2	St Joseph Hospice and Palliative Care Northshore, LLC	Covington	LA	
2	The Hospice of the Florida Suncoast, Inc.	Clearwater	FL	
2	Unity Point at Home	Waterloo	IA	
2	Unity Point at Home	Urbandale	IA	
2	University of TN Medical Center Hospice	Morristown	TN	
2	Visiting Nurse Association (VNA) Health Group of New Jersey, LLC	West Orange	NJ	
2	Visiting Nurse Association of Texas	Dallas	TX	
2	Hospice of the Treasure Coast Inc.	Fort Pierce	FL	1/23/2015
2	Hospice of Michigan	Detroit	MI	5/26/2015
2	Hospice of Michigan	Big Rapids	MI	5/26/2015
2	Hospice of Michigan	Saginaw	MI	5/26/2015
2	Hospice of Chattanooga Incdi	Chattanooga	TN	10/14/2015
2	Carilion Medical Center	Roanoke	VA	10/24/2015
2	Carilion Franklin Memorial Hospital	Rocky Mount	VA	11/10/2015
2	Carolina's Palliative Care and Hospice Network	Monroe	NC	1/21/2016
2	Tru Community Care	Lafayette	CO	11/1/2016

Cohort	Hospice Name	City	State	Withdrawal Effective Date
2	Hospice of Northwest Ohio	Lambertville	MI	6/8/2017
2	Palliative Care Center & Hospice of Catawba Valley	Newton	NC	6/23/2017
2	Agrace HospiceCare, Inc.	Madison	WI	7/5/2017
2	Providence Health and Services-Washington	Seattle	WA	8/11/2017
2	Halifax Hospice Inc.	Port Orange	FL	9/9/2017
2	North Country Home Health & Hospice Agency, Inc.	Littleton	NH	10/1/2017
2	Benefis Hospital	Great Falls	MT	11/15/2017
2	M J H S Hospice and Palliative Care, Inc.	Manhattan	NY	11/16/2017
2	IHC Health Services Inc.	South Jordan	UT	12/10/2017
2	Allina Health	St. Paul	MN	12/14/2017
2	Hospice of Central Iowa	West Des Moines	IA	1/4/2018
2	Burke Hospice and Palliative Care, Inc.	Valdese	NC	1/9/2018
2	Visiting Nurse Association & Hospice of Vermont and New Hampshire	White River Junction	VT	1/9/2018
2	Procare Hospice of Nevada, LLC	Las Vegas	NV	1/22/2018
2	Hospice of the Miami Valley	Xenia	OH	2/14/2018
2	Community Health and Counseling Services	Bangor	ME	2/15/2018

Source: List of hospices accepted to MCCM by CMMI.

E.2.1 MCCM Hospice Participation

Section 2.1.2 of the report explores the characteristics of hospices that withdrew from MCCM based on administrative records from the MCCM implementation contractor. A summary of findings from our interviews with withdrawn hospices about their reasons for leaving MCCM appears in Exhibit E.2. Characteristics of hospices that withdrew from the model through December 31, 2017 are discussed in Section 2.1.3, with additional details shown in Exhibit E.4.

Exhibit E.2: Primary Reasons for MCCM Withdrawal by Cohort, Based on Interviews

Reasons for Withdrawal	Number of Withdrawn Cohort 1 Hospices Citing Each Reason (N=10)	Number of Withdrawn Cohort 2 Hospices Citing Each Reason (N=8)
Disappointing enrollment due to eligibility criteria. See Section 2.2.3 for greater detail on which eligibility criteria limited enrollment.	9	3
Two cohort 1 hospices noted changes in leadership and loss of a "champion" to take responsibility for MCCM. Many cohort 1 and cohort 2 hospices mentioned competing initiatives and leadership changes that led the organization to focus their efforts on other priorities.	4	4
Hospices in both cohorts mentioned that costs of providing services and meeting reporting requirements exceeded the per-beneficiary per-month MCCM payment.	5	1
A few hospices mentioned that confirming eligibility was burdensome, even for beneficiaries who met the criteria. See Section 2.2.3 for greater detail.	2	1
Three hospices with multiple locations had one location randomized to cohort 1 and another to cohort 2. These organizations could not meet the participation agreement prohibition against sharing information with hospices in other cohorts, because they are all part of one company that does centralized planning.	1	2

Source: Interviews with hospices that withdrew from MCCM, January–November, 2017.

Note: The evaluation team attempts to interview every hospice that withdraws. Six hospices that withdrew refused our request for an interview. For multiple hospices that are owned by a single parent organization, we conducted one interview. For these reasons, the number of interviews of withdrawn hospices in this report does not match the total number of withdrawals (18 from cohort 1 and 19 from cohort 2).

Section 2.1.3 provides characteristics of hospices that are participating and not participating in the model. Additional characteristics are shown below in Exhibits E.3 and E.4.

Exhibit E.3: Additional Hospice Characteristics, by MCCM Status

Hospice Characteristic	MCCM Cohort 1 (N = 71)	MCCM Cohort 2 (N =70)	All Other Hospices (N = 4,221)
Religious affiliation: No	97.2%	97.1%	97.9%
Chain affiliation: Yes	47.9%	44.3%	42.3%
Mean length of stay (in days) on Medicare hospice benefit in fiscal year 2016	78.4	77.9	105.8
Percentage of beneficiaries enrolled in Medicare managed care plans prior to enrolling in Medicare hospice benefit	26.1%	25.3%	29.0%

Source: Abt Associates analysis of Provider of Services files and Medicare claims. Chain affiliation comes from Consumer Assessment of Healthcare Providers and System Hospice Survey data. Managed care enrollment comes from Master beneficiary summary file.

Notes: Hospice groups defined as: (1) MCCM cohort 1 hospices, (2) MCCM cohort 2 hospices, and (3) all other hospices. The all other hospices group consists of the 4,221 hospices that had at least one claim in 2016 nationwide and were not in cohort 1 or cohort 2. Chi-square tests were used to identify differences across these groups for each characteristic of interest. For each reported characteristic, we found no significant differences across the MCCM and non-MCCM groups of hospices, at any level of significance.

Exhibit E.4: Additional Characteristics across Active and Withdrawn MCCM Hospices

Hospice Characteristic	Active – Cohort 1 (N = 53)	Active – Cohort 2 (N = 51)	Withdrawn – Cohort 1 (N = 18)	Withdrawn – Cohort 2 (N = 19)
Religious affiliation: No	96.2%	96.1%	100.0%	100.0%
Chain affiliation: Yes	49.1%	41.2%	44.4%	52.6%
Mean length of stay (in days) on Medicare hospice benefit in fiscal year 2016	76.0	78.2	85.4	77.0
Percentage of beneficiaries enrolled in Medicare managed care plans prior to enrolling in Medicare hospice benefit	26.9%	24.3%	23.7%	27.8%

Source: Abt Associates analysis of Provider of Services files and Medicare claims. Chain affiliation comes from Consumer Assessment of Healthcare Providers and System Hospice Survey data. Managed care enrollment comes from Master beneficiary summary file.

Note: Analysis presents characteristics for 141 MCCM hospices through December 31, 2017. Results include averages across groups by hospice withdrawal status (whether or not they withdrew from the model) and cohort (1 or 2). Chi-square tests were used to identify differences across these groups for each characteristic of interest. For each reported characteristic, we found no significant differences across the active and withdrawn groups of hospices, at any level of significance.

E.2.2 Trends in MCCM Enrollment

We asked about enrollment challenges during case studies, and separately interviewed six hospices that were struggling to enroll anyone in MCCM. Our findings are discussed in Section 2.2.4 of the report, and summarized in Exhibit E.5.

Exhibit E.5: Primary Enrollment Challenges Mentioned by Cohort 1 Hospices, by Type of Evaluation Interview

MCCM Eligibility Criteria	Interviews with Case Study Hospices (N=10)	Interviews with Withdrawn Hospices (N=10)	Interviews with Low Enrollment Hospices (N=6)	Notes
Enrolled in Medicare fee-for-service Part A and Part B as primary insurance for the past 12 months (not enrolled in a Medicare managed care plan, including but not limited to Medicare managed care plans, Health Care Pre-Payment Plan, or Program of All-inclusive Care for the Elderly)	5	7	5	Seven withdrawn cohort 1 hospices said this criterion was challenging; four of the seven said it was difficult for their beneficiary population to meet the criteria, and three found it burdensome to confirm this eligibility criterion.
Has a diagnosis as indicated by certain ICD-9/10 codes for terminal cancer, COPD, HIV/AIDS, or CHF	3	1	0	
Has had at least one hospital encounter (either emergency department visit, observation stay, ICU, or hospital inpatient admission) in the last 12 months	3	2	0	One withdrawn cohort 1 hospice noted that their concurrent programs keep beneficiaries out of the hospital, making it hard to meet this criterion.
Has had at least three office visits (defined as a physician/supplier Part B claim or outpatient claim with HCPCS code of 99201-99499 and which occurred in the 12 months prior to enrollment) with any provider (defined as primary care or specialist provider)	1	0	1	
Has not elected the Medicare hospice benefit within the last 30 days	1	0	0	
Certified by a physician as having six months to live if the end-stage condition runs its usual course in accordance with §418.22, co-signed by the hospice medical director	2	2	2	
Lived in a traditional home continuously for the last 30 days; a patient who is in an SNF, ALF, or IRF that is not their permanent residence; can be enrolled into MCCM after discharge without waiting 30 days	4	2	0	
Patient's address is within the service area of the participating hospice	0	0	0	

Source: Qualitative data collection, March–November 2017.

Note: ICD = International Classification of Disease; CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; SNF = skilled nursing facility; ALF = assisted living facility; IRF = inpatient rehabilitation facility.

E.2.3 MCCM Beneficiary Participation

Section 2.3.1 of the report provides characteristics of beneficiaries from *MCCM decedents – cohort 1*. The exhibits below are counterparts that show similar findings among the *MCCM ever-enrolled beneficiaries – cohort 1*.

Exhibit E.6: Demographics of MCCM Beneficiaries Ever Enrolled in Cohort 1 Hospices

Beneficiary Characteristic		MCCM Ever-Enrolled Beneficiaries – Cohort 1 (N = 1,092)
Age	0–64	8.0%
	65–74	28.2%
	75–84	38.6%
	85+	25.2%
Gender	Male	47.4%
	Female	52.6%
Race & ethnicity	White	85.9%
	Black	10.5%
	Hispanic	0.6%
	Other	2.9%
Census region	South	43.9%
	Midwest	30.0%
	Northeast	19.6%
	West	6.1%
	Other/unknown	0.5%
Medicare/Medicaid dual eligibility	Dual eligible: No	94.0%
	Dual eligible: Yes	6.0%

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon MCCM enrollees with dates of enrollment on or prior to June 30, 2017. Percentages are column percentages within a broad group of beneficiary characteristics.

Exhibit E.7: Clinical Characteristics of MCCM Beneficiaries Ever Enrolled in Cohort 1 Hospices

Beneficiary Characteristic		MCCM Ever-Enrolled Beneficiaries – Cohort 1 (N = 1,092)
Functional status	Independent	16.1%
	Needs some assistance	62.4%
	Dependent	21.5%
Diagnosis & multimorbidity	Cancer	52.7%
	CHF	17.5%
	COPD	13.3%
	COPD + CHF	6.0%
	Other (including HIV/AIDS)	5.5%
	Cancer + COPD	4.0%
	Cancer + COPD + CHF	1.0%
Comorbidities	Hypertension	75.6%
	Hyperlipidemia	59.4%
	Anemia	53.9%
	Ischemic heart disease	52.7%
	Chronic kidney disease	47.2%

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon MCCM enrollees with dates of enrollment on or prior to June 30, 2017.Comorbidities identified as the five most common chronic conditions among MCCM enrollees. CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = Human immunodeficiency virus/acquired immunodeficiency syndrome. Percentages are column percentages within a broad group of beneficiary characteristics.

Exhibit E.8: Social Support Characteristics of MCCM Beneficiaries Ever Enrolled in Cohort 1 Hospices

Beneficiary Characteristic		MCCM Ever-Enrolled Beneficiaries – Cohort 1 (N = 1,092)
Marital status	Married	49.5%
	Widowed	28.8%
	Divorced	10.4%
	Never married	7.0%
	Declined to report	3.8%
	Partner	0.7%
Caregiver availability	Spouse	42.2%
	Child/Children	32.3%
	No caregiver	6.9%
	Other	5.2%
	Paid caregiver other than family member	5.1%
Living arrangements	Patient lives alone	75.8%
	Patient lives with other person(s)	24.2%

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal. Characteristics come from the MCCM portal.

Note: Analysis based upon MCCM enrollees with dates of enrollment on or prior to June 30, 2017. Percentages are column percentages within a broad group of beneficiary characteristics.

Exhibit E.9: Additional Characteristics of MCCM Ever-Enrolled Beneficiaries, MCCM Decedents, and MCCM-Eligible Nationwide Decedents

Beneficiary Characteristic	MCCM Ever-Enrolled Beneficiaries – Cohort 1 (N = 1,092)	MCCM Decedents – Cohort 1 (N = 595)	MCCM-Eligible Nationwide Decedents (N = 305,375)	Significance
Location: Rural	14.7%	14.1%	23.6%	***
Location: Urban	84.9%	85.9%	76.2%	***
CMS Hierarchical Condition Categories risk score	2.4	2.4	2.4	

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon MCCM enrollees with dates of enrollment on or prior to June 30, 2017. All characteristics are specified as according to Appendix A. Chi-square tests were used to identify differences between MCCM decedents and the MCCM-eligible nationwide decedents, with statistical significance identified at the 90th (*), 95th (**), and 99th (***) levels. Percentages are column percentages within a broad group of beneficiary characteristics.

E.3 What Elements of Care Do MCCM Enrollees Receive?

E.3.1 Care Received by MCCM Enrollees

Section 3.1 of the report describes care received under MCCM. Exhibits E.10 through E.18 present similar results for care received through the model among the *MCCM ever-enrolled beneficiaries – cohort 1* (results presented in Section 3.1 were estimated using MCCM enrollees that died on or prior to June 30, 2017).

Exhibit E.10 lists the percentage of encounters by MCCM provider and associated services provided during each encounter. Exhibit E.11 presents monthly rates of encounters by provider type. Exhibit E.12 presents counts and rates of encounters by diagnosis, multimorbidity, and functional status. Exhibit E.13 presents the percentage of enrollees that ever saw a particular provider type. Exhibit E.14 presents the percentage of encounters by mode. Exhibit E.15 presents the percentage of encounters by recipient. Exhibit E.16 presents the number and percentage of encounters reflecting quality of care. Exhibit E.17 presents the percentage of enrollees that ever received a particular service. Lastly, Exhibit E.18 presents the number of encounters per month, by length of MCCM enrollment.

The estimates presented in this section should be interpreted with caution because MCCM enrollment is ongoing for many beneficiaries included in this analysis, and their subsequent care utilization patterns have yet to be observed.

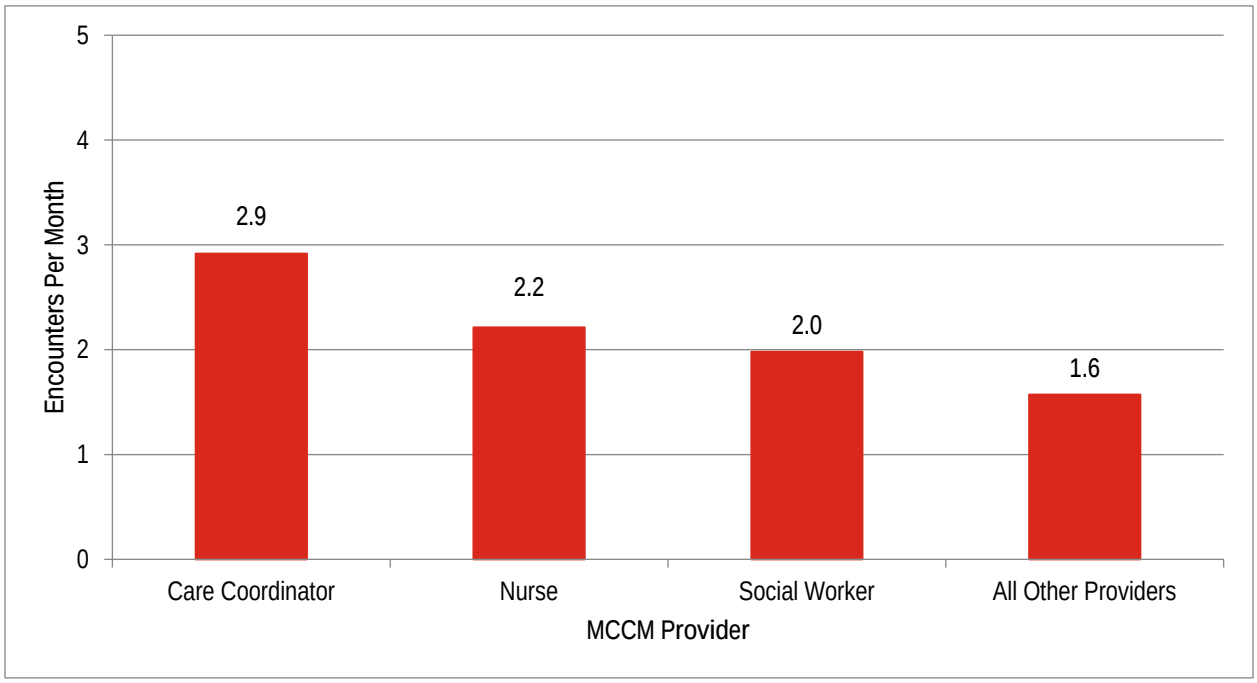
Exhibit E.10: MCCM Encounters and Services, by Provider Type

MCCM Provider	Percentage of Encounters (N = 19,791)	Total Services	Average Number of Services per Encounter
Care coordinator	32.3%	27,914	4.4
Social worker	21.9%	17,551	4.1
Nurse	19.4%	16,308	4.2
Aide	12.6%	5,268	2.1
Chaplain	8.1%	3,372	2.1
Volunteer	1.8%	836	2.3
Hospice physician	1.8%	493	1.4
Bereavement counselor	0.8%	215	1.4
Nurse practitioner	0.7%	675	4.8
Massage therapist	0.3%	127	2.2
Other therapist	0.2%	115	3.4
Music therapist	0.1%	52	3.1
Other spiritual counselor	0.05%	50	5.0
Nutritional counselor	0.02%	22	5.5
Pharmacist	0.02%	11	3.7
Pet therapist	0.02%	33	11.0
Art therapist	0.00%	0	N/A
Total	100.0%	73,042	3.7

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring from January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. "Service" refers to the type of care or care coordination taking place during the encounter. Typically, multiple services are provided during a single encounter. Prior to January 1, 2018, service data were reported in one encounter record when multiple providers met with the patient at the same time. As a result, the "average number of services per encounter" column may be inflated because there is no way to disaggregate the service data by provider type. Starting January 1, 2018, all data are now collected in separate encounter records for each provider.

Exhibit E.11: MCCM Encounters per Month, by Provider Type



Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring from January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. Overall, 8.7 encounters per month were provided. Nurse encounters include encounters from registered nurses, nurse practitioners, and licensed practice nurses combined.

Exhibit E.12: MCCM Encounters by Diagnosis, Multimorbidity, and Functional Status

	MCCM Ever-Enrolled Beneficiaries – Cohort 1	Total Encounters	Encounters per Month
Total	1,092	19,791	8.7
Diagnosis & Multimorbidity			
Cancer	575	9,188	9.5
CHF	191	4,280	7.7
COPD	145	3,000	6.4
Other (including HIV)	66	1,498	8.3
COPD + CHF	60	1,037	9.8
Cancer + COPD	44	666	8.7
Cancer + COPD + CHF	11	122	6.0
Functional Status			
Independent	176	3,311	8.4
Needs some assistance	681	13,332	8.0
Dependent	235	3,148	10.9

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. Functional status is assessed by hospice staff during MCCM intake/enrollment. CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

Exhibit E.13: MCCM Enrollees with Encounters, by Provider Type

MCCM Provider	Percentage of MCCM Ever-Enrolled Beneficiaries – Cohort 1 Having an Encounter with Each Provider (N = 1,092)
Social worker	79.0%
Care coordinator	71.9%
Nurse	64.1%
Chaplain	37.1%
Aide	19.6%
Volunteer	7.1%
Hospice physician	5.3%
Nurse practitioner	4.9%
Bereavement counselor	3.0%
Other therapist	1.3%
Massage therapist	1.2%
Music therapist	0.6%
Other spiritual counselor	0.5%
Nutritional counselor	0.4%
Pharmacist	0.3%
Pet therapist	0.3%
Art therapist	0.0%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider.

Exhibit E.14: MCCM Encounters, by Mode

Delivery Mode	Percentage of Encounters (N = 19,791)
Home/residence	74.6%
Phone	23.9%
Facility bedside	1.3%
Mail/email	0.2%
Skype	<0.1%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider.

Exhibit E.15: Recipients of MCCM Encounters

Encounter Recipient	Percentage of Encounters (N = 19,791)
Enrollee	91.9%
Family	36.3%
Caregiver (not family)	9.9%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. Note that single encounters may benefit multiple individuals.

Exhibit E.16: MCCM Encounters Reflecting Quality of Care

Service Indicating Quality of Care	Encounters with Each Service (N = 19,791)	Percentage of Encounters with Each Service	MCCM Ever-Enrolled Beneficiaries – Cohort 1 Receiving Each Service (N = 1,092)	MCCM Ever-Enrolled Beneficiaries – Cohort 1 Percentage Receiving Each Service
Comprehensive assessment	2,784	14.1%	734	67.2%
Depression screening	9,299	47.0%	1,016	93.0%
Pain screening	9,727	49.1%	1,088	99.6%
Shortness of breath screening	9,807	49.6%	1,064	97.4%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider. "Service" refers to the type of care or care coordination provided during the encounter.

The version of the MCCM portal used to construct this table did not provide information on whether an encounter was a comprehensive assessment. Instead, we labeled encounters as a comprehensive assessment if it was:

1. *Provided by a care coordinator, RN/LPN, nurse practitioner, and/or hospice physician*
2. *Provided in-person or at facility bedside (not electronically)*
3. *Provided to the beneficiary (not a family member or caregiver) during an initial visit, or following a change in the beneficiary's status, or following an ED visit/hospitalization.*

The MCCM portal did include a field indicating the date of an enrollee's initial comprehensive assessment. If this date corresponded to an encounter date, we then determined whether the encounter on that date met the above criteria for being a comprehensive assessment. We found that 1,070 (98.0%) of enrollees had an initial comprehensive assessment date recorded in the MCCM portal, but the above criteria were met for only 734 (67.2%) enrollees, as displayed above in the exhibit.

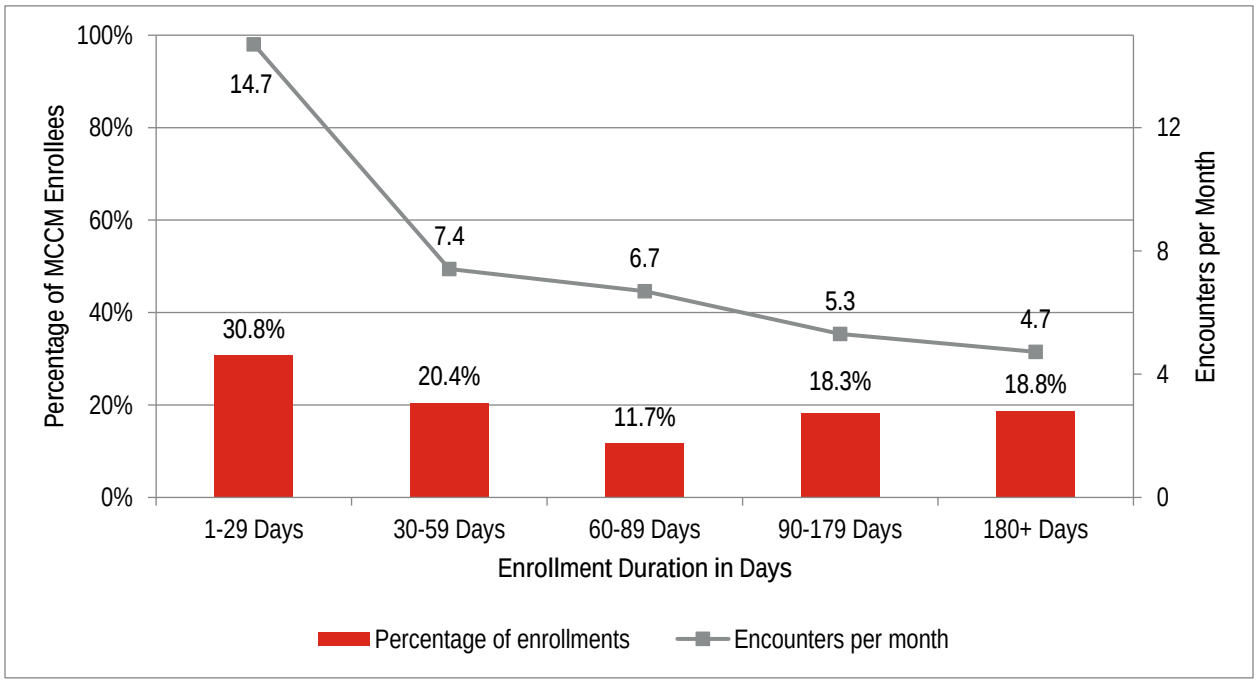
Exhibit E.17: Enrollees Receiving MCCM Services, by Service Type

MCCM Service	Percentage of MCCM Ever-Enrolled Beneficiaries – Cohort 1 Receiving Each Service (N = 1,092)
Education	84.6%
Care management: Assess needs	83.9%
Care management: Discuss service needs	76.9%
Family support	75.0%
Care management: Follow up	71.0%
Symptom management	70.6%
Advance care planning	67.7%
Family conference	61.4%
Spiritual support	54.5%
Transitional planning	49.6%
Care management: Referral made	34.2%
Care management: 1:1 consult with non-physician	34.2%
Other	31.5%
Medication administration	31.0%
Care management: 1:1 consult with physician	28.8%
Wound care	12.1%
Volunteer companionship	9.1%

Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Service" refers to the type of care or care coordination provided during the encounter. Note that multiple services may be provided during a single encounter and each percentage represents a cell percentage indicating what percentage of enrollees had a particular MCCM service.

Exhibit E.18: Number of Encounters per Month, by Length of MCCM Enrollment



Source: Abt Associates analysis of Medicare claims, the Master beneficiary summary file, and MCCM portal data. Analysis based upon 1,092 MCCM enrollees who enrolled prior to June 30, 2017.

Note: Includes recorded encounters/services occurring January 1, 2016 to June 30, 2017. "Encounter" refers to a meeting, whether in person or by phone, between an MCCM beneficiary or caregiver and a health care provider.

E.3.2 Non-MCCM Medicare Services Received by MCCM Enrollees

Exhibit E.19 presents end-of-life Medicare utilization by MCCM enrollees who died prior to June 30, 2017, as discussed in Section 3.2.1 of the main report. Estimates refer to the number of events (i.e., admissions, readmissions, visits) or percentage of enrollees receiving home health, occurring on average within the time period specified in the column. For example, the estimate of 0.5 in the upper-left cell would be interpreted as "on average, MCCM enrollees experienced 0.5 inpatient admissions in the last 30 days of life".

Specifications for all Medicare utilization measures are shown in Section A.5.7 of this report.

Exhibit E.19: MCCM Enrollees' Medicare Utilization

Medicare Utilization	Last 30 Days of Life	Last 90 Days of Life	Last 180 Days of Life	Last 365 Days of Life
Inpatient admissions	0.5	1.2	1.9	2.8
Intensive care unit admissions	0.1	0.2	0.3	0.4
Inpatient 30-day readmissions	0.2	0.5	0.7	1.0
Emergency department visits	0.6	1.5	2.5	3.8
Evaluation and management visits	6.9	19.2	33.5	55.4
Percentage of beneficiaries receiving home health visits (%)	17.2%	32.5%	50.0%	66.2%
Ambulance services	0.8	1.5	2.1	3.1

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon 595 MCCM enrollees with dates of death on or prior to June 30, 2017, less one MCCM enrollee due to a suspect date of death (that came prior to other recorded Medicare claims).

Estimates of end-of-life Part A and Part B Medicare expenditures are presented in Exhibit E.20. An abbreviated figure and discussion of this table appears in Section 3.2.2 for the 90 day measure. Specifications for all Medicare expenditures measures are shown in Section A.5.8 of this report.

Information on the home health care utilization of *MCCM decedents – cohort 1* is presented in Section 3.2.3. Exhibit E.21 shows the number of Medicare-covered visits MCCM enrollees received from HHAs in order to illustrate the extent of overlap in services provided between MCCM and care received through the Medicare home health benefit.

Exhibit E.20: MCCM Enrollees' Medicare Expenditures, by Diagnosis, Multimorbidity, Functional Status, and Dual Eligibility

	Last 30 Days of Life	Last 90 Days of Life	Last 180 Days of Life	Last 365 Days of Life
Overall				
Total Medicare expenditures (Parts A and B)	$13,544	$30,741	$50,473	$81,205
Component				
Inpatient	$5,524	$12,664	$20,276	$30,814
Hospice	$3,910	$5,102	$5,622	$6,025
Outpatient	$1,298	$5,002	$10,323	$20,019
Physician/supplier Part B	$1,432	$4,697	$8,711	$15,265
Home health	$757	$1,544	$2,404	$3,626
Skilled nursing facility (SNF)	$497	$1,311	$2,150	$3,649
Durable medical equipment (DME)	$127	$422	$987	$1,807
Diagnosis & Multimorbidity				
CHF	$13,477	$31,877	$53,893	$83,858
COPD	$15,418	$30,865	$50,753	$80,531
COPD + CHF	$10,455	$26,266	$46,013	$75,400
Cancer	$13,358	$30,327	$50,021	$80,926
Cancer + COPD	$14,541	$31,903	$44,295	$73,437
Cancer + COPD + CHF	$15,567	$45,773	$63,546	$75,697
Other – including (HIV/AIDS)	$14,125	$33,276	$54,301	$91,057
Functional Status				
Independent	$11,574	$26,809	$41,797	$69,060
Needs some assistance	$13,786	$29,239	$48,302	$78,889
Dependent	$14,077	$36,419	$60,344	$93,342
Medicare/Medicaid Dual Eligibility				
Dual eligible: No	$13,434	$30,220	$49,998	$80,317
Dual eligible: Yes	$14,644	$35,946	$55,218	$90,086

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon 595 MCCM decedents with dates of death on or prior to June 30, 2017, less one MCCM enrollee due to a suspect date of death (that came prior to other recorded Medicare claims). CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = Human immunodeficiency virus/acquired immunodeficiency syndrome.

Exhibit E.21: MCCM Enrollees' Utilization of the Medicare Home Health Benefit by Diagnosis, Multimorbidity, and Comorbidity

	MCCM Decedents – Cohort 1 (N = 594)	Percentage Receiving Any Home Health Services	Home Health Visits per Month, by Discipline						
			All Disciplines	Skilled Nursing	Physical Therapy	Occupational Therapy	Speech Therapy	Home Health Aide	Medical Social Services
Overall									
Total enrollees	594	39.7%	4.13	1.58	1.56	0.53	0.13	0.31	0.03
Diagnosis & Multimorbidity									
Cancer	362	34.8%	3.97	1.57	1.59	0.46	0.14	0.20	0.02
CHF	79	53.2%	4.79	1.48	1.98	0.62	0.16	0.52	0.04
COPD	56	46.4%	3.99	1.17	1.51	0.73	0.20	0.34	0.04
Other – including HIV/AIDS	35	45.7%	3.22	1.71	0.98	0.31	0.00	0.22	0.00
COPD + CHF	29	44.8%	5.38	2.62	1.19	0.90	0.14	0.43	0.10
Cancer + COPD	29	37.9%	3.60	1.83	1.00	0.23	0.00	0.53	0.00
Cancer + COPD + CHF	4	50.0%	1.50	1.25	0.25	0.00	0.00	0.00	0.00
Comorbidity									
Hypertension	441	41.0%	4.36	1.69	1.58	0.57	0.15	0.34	0.03
Hyperlipidemia	354	43.2%	4.10	1.78	1.40	0.49	0.17	0.24	0.02
Anemia	336	43.2%	4.57	1.71	1.74	0.64	0.12	0.35	0.02
Ischemic heart disease	321	42.7%	4.39	1.69	1.57	0.61	0.15	0.33	0.03
Chronic kidney disease	275	43.6%	4.66	1.70	1.77	0.69	0.12	0.34	0.04

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon 595 MCCM decedents with dates of death on or prior to June 30, 2017, less one MCCM enrollee due to a suspect date of death (that came prior to other recorded Medicare claims). Codes used to measure visits on home health claims included: Skilled Nursing: Revenue Code 055x; Home Health Aides: Revenue Code 057x; Medical Social Services: Revenue Code 056x; Physical Therapy: Revenue Code 042x; Occupational Therapy: Revenue Code 043x; Speech Therapy: Revenue Code 044x. Comorbidities are based on the five most common chronic conditions among MCCM enrollees. CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = Human immunodeficiency virus/acquired immunodeficiency syndrome. Includes home health utilization that occurred only after MCCM enrollment. Averages are based on all visits that occurred in a given calendar month. If an MCCM enrollee was not receiving home health services for an entire month, their visit count may be less than if the enrollment had continued for the entire month.

E.4 How Do Participating Hospices Implement MCCM?

E.4.2 Marketing Efforts to Generate MCCM Referrals

Marketing efforts to generate MCCM referrals are discussed in Section 4.2. A summary of the target audiences of MCCM marketing efforts, in terms of health care provider and setting of care, is shown in Exhibit E.22.

Exhibit E.22: Target Audience for MCCM Marketing Efforts

Audience	Setting of Care								Did Not/Will Not Market MCCM to This Audience	
	In Hospitals		In Physician Practices		In Home Health Agencies		In Other Settings			
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
Beneficiaries	36.7%	62.2%	36.7%	60.0%	24.5%	55.6%	22.4%	46.7%	30.6%	8.9%
Family caregivers	30.6%	55.6%	34.7%	55.6%	20.4%	55.6%	24.5%	60.0%	38.8%	6.7%
Physicians	61.2%	82.2%	91.8%	80.0%	8.2%	31.1%	14.3%	46.7%	4.1%	0.0%
Nursing staff	55.1%	73.3%	65.3%	73.3%	53.1%	80.0%	22.4%	51.1%	12.2%	4.4%
Social workers	69.4%	77.8%	38.8%	53.3%	40.8%	68.9%	18.4%	48.9%	18.4%	2.2%
Discharge planners	81.6%	84.4%	28.6%	40.0%	16.3%	35.6%	12.2%	31.1%	14.3%	0.0%
Palliative care teams	73.5%	84.4%	24.5%	37.8%	16.3%	33.3%	18.4%	31.1%	8.2%	2.2%
Pastoral staff/chaplains	24.5%	57.8%	6.1%	20.0%	12.2%	22.2%	10.2%	42.2%	53.1%	20.0%
Finance staff	10.2%	20.0%	4.1%	17.8%	12.2%	24.4%	12.2%	13.3%	65.3%	53.3%

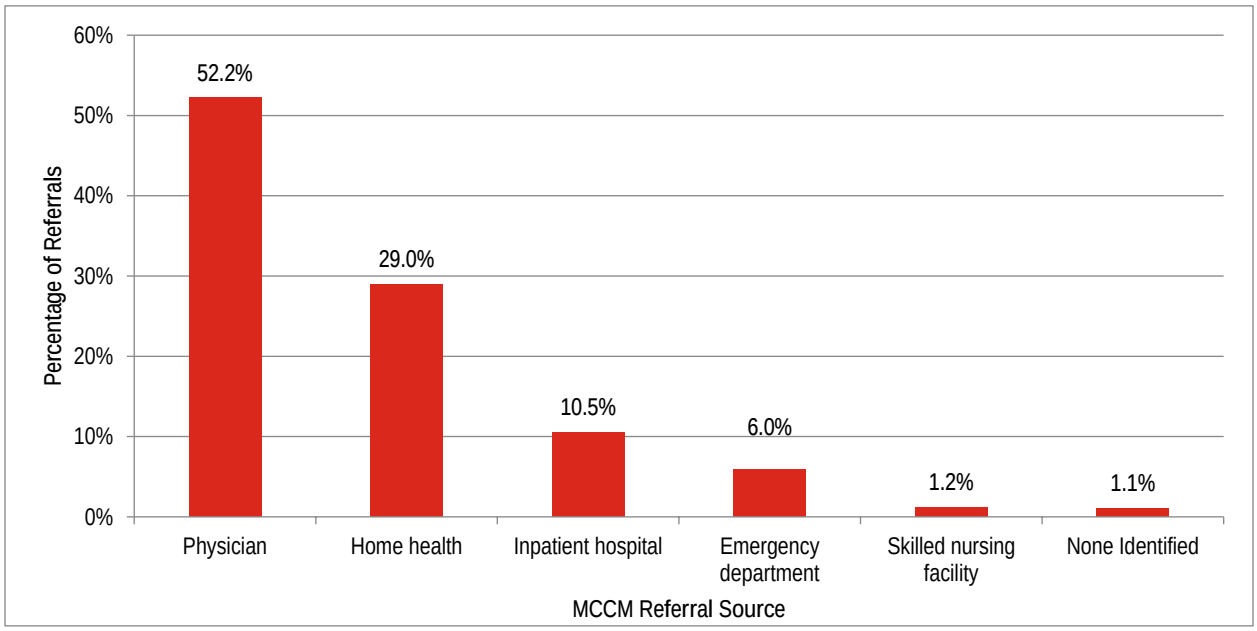
Source: Cohort 1 and 2 organizational survey, fielded September–December 2017. Sample size is 49 cohort 1 hospices and 45 cohort 2 hospices.

Note: Each number in a cell represents the percentage of hospices in each cohort that targeted a particular audience in a particular setting of care.

E.4.3 Referral to MCCM Hospices

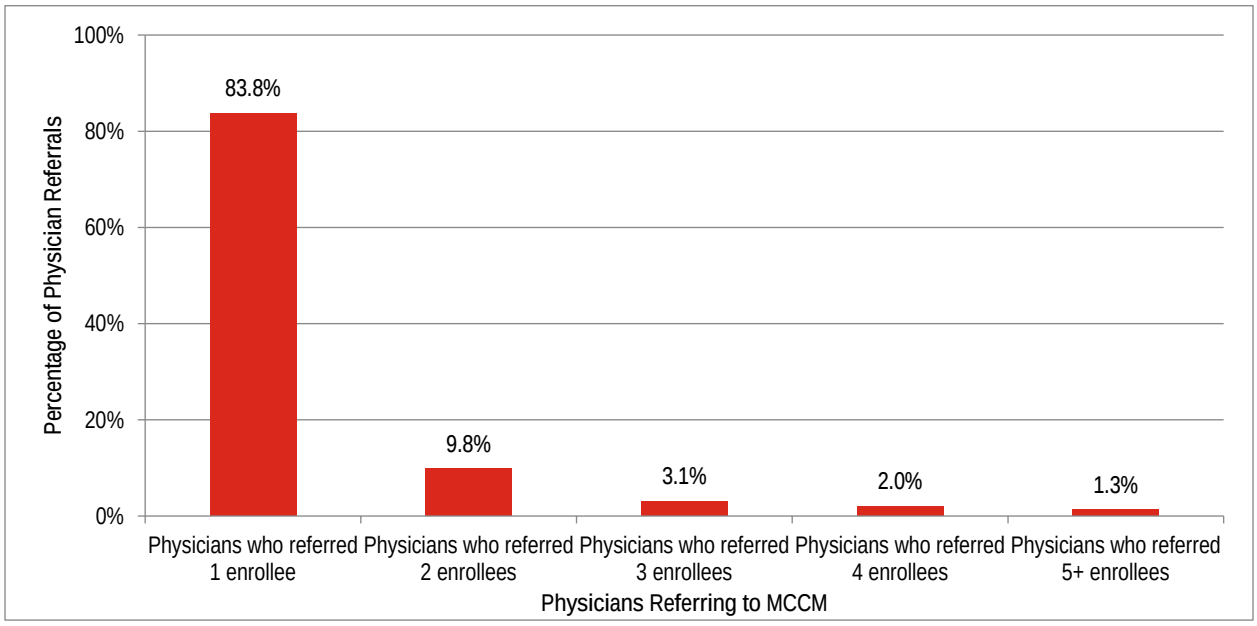
MCCM referrals are discussed in Section 4.3. Exhibits E.23, E.24 and E.25 recreate Exhibits 4.10, 4.11, and 4.12, respectively showing the referral sources of MCCM enrollees, the patterns of physician referrals, and referring physician specialty disciplines among *MCCM ever-enrolled beneficiaries – cohort 1*, whereas Section 4.3 presents findings for *MCCM decedents – cohort 1*. Exhibit E.26 presents the volume of physician referrals to MCCM and the corresponding level of MCCM enrollment.

Exhibit E.23: Referral Source of MCCM Enrollees



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis is based upon 1,092 MCCM enrollees.

Exhibit E.24: Patterns of Physician Referrals to MCCM



Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis is based upon 1,092 MCCM enrollees referred by 844 physicians.

Note: Percentage of physician referrals is defined as the number of physicians referring each number of MCCM enrollees, divided by the total number of physicians who referred any MCCM enrollee.

Exhibit E.25: Referring Physician Specialty of MCCM Enrollees

Specialty of Physicians Making MCCM Referrals	Percentage of MCCM Ever-Enrolled Beneficiaries – Cohort 1 (N =1,092)
Oncology	35.6%
Internal medicine	23.1%
Family practice medicine	22.3%
Cardiology	6.6%
Pulmonology	3.8%
Palliative care	2.3%
Hematology	1.3%
Other	5.1%

Source: Abt Associates analysis of Medicare claims, and MCCM portal data. Analysis is based upon 1,092 MCCM enrollees referred by 844 physicians.

Exhibit E.26: Volume of MCCM Enrollment by Referring Physicians

Physicians Referring…	Percentage of Referring Physicians (N = 493)	Percentage of MCCM Decedents – Cohort 1 (N = 595)
1 MCCM enrollee	87.2%	72.3%
2 MCCM enrollees	8.5%	14.1%
3 MCCM enrollees	2.2%	5.5%
4+ MCCM enrollees	2.0%	8.0%

Source: Abt Associates analysis of Medicare claims and MCCM portal data. Analysis based upon 595 MCCM enrollees with dates of death on or before June 30, 2017. Percentages are column percentages that add to 100% within a column.

E.6 What Do We Know about Transitions from MCCM to Hospice?

Section 6 discusses findings on the transition from MCCM to the Medicare hospice benefit (MHB). Extended results are presented in the appendix sections that follow. All measures are specified in Appendix A, Section A.5.11.

E.6.1 Transition from MCCM to Hospice and Duration to Death

Exhibit E.27 presents survival from MCCM enrollment to death and transitions from MCCM to MHB, overall and by diagnosis, multimorbidity, functional status, and dual eligibility status, as discussed in Section 6.2.

Exhibit E.27: Survival from MCCM Enrollment to Death and Transitions from MCCM to the Medicare Hospice Benefit (MHB), by Diagnosis, Multimorbidity, Functional Status, and Dual Eligibility

	MCCM Decedents – Cohort 1			MCCM Decedents – Cohort 1 (Only Those Transitioning to MHB)				
	MCCM Decedents – Cohort 1	Survival from MCCM enrollment to death, in days	Rate of transition from MCCM to MHB	MCCM Decedents – Cohort 1	Survival from MCCM enrollment to death, in days	Duration from MCCM enrollment to MHB transition, in days	Duration from MHB enrollment to death, in days	Number of days using MHB after transition from MCCM
Overall								
Total Enrollees	594	88.5	83.2%	494	91.5	62.0	30.5	30.3
Diagnosis & Multimorbidity								
Cancer	362	85.4	89.0%	322	87.9	59	29.9	29.8
CHF	79	92.8	69.6%	55	105.6	77	29.6	29.2
COPD	56	120.8	80.4%	45	113.2	69.5	44.7	43.4
Other (including HIV/AIDS)	35	75.4	82.9%	29	83.7	64.9	19.8	19.8
COPD + CHF	29	77.6	55.2%	16	82.7	59.7	24	24
Cancer + COPD	29	89.3	82.8%	24	89.9	56.4	34.5	34
Cancer + COPD + CHF	4	29.3	75.0%	3	33.3	23.3	11	11
Functional Status								
Independent	85	109.2	88.2%	75	115.9	74.7	42.1	42.1
Needs some assistance	356	96.8	82.3%	293	98.6	67.6	32.0	31.4
Dependent	153	57.8	82.4%	126	60.5	41.3	20.2	20.7
Medicare/Medicaid Dual Eligibility								
Dual eligible: No	540	86.6	83.9%	453	89.1	60.3	29.8	29.8
Dual eligible: Yes	54	108.3	75.9%	41	117.5	80.3	38.2	36.5

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon MCCM enrollees with dates of death on or prior to June 30, 2017, less one MCCM enrollee due to a suspect date of death (that came prior to other recorded Medicare claims). Survival was calculated as date of death minus date of MCCM enrollment plus one. MCCM enrollment to MHB transition was calculated as date of MHB start minus date of MCCM enrollment plus one; MHB transition to death was calculated as date of death minus MHB start date plus one. Number of days on MHB after transition from MCCM was calculated as only the number of days using MHB (i.e., allowing for any subsequent withdrawals from hospice). CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = Human immunodeficiency virus/acquired immunodeficiency syndrome.

E.6.2 Characteristics of MCCM Enrollees Who Transitioned to Hospice

Exhibit E.28 displays beneficiary-level characteristics for MCCM enrollees who died prior to June 30, 2017, for those remaining on MCCM until death, for those transitioning from MCCM to MHB, and for those who withdrew from MCCM without ever enrolling in MHB, as discussed in Section 6.3.

Exhibit E.28: Characteristics of Beneficiaries in MCCM by Medicare Hospice Benefit (MHB) Status

Beneficiary Characteristic		MCCM Decedents – Cohort 1		MCCM Decedents – Cohort 1 Remained in MCCM until death		MCCM Decedents – Cohort 1 Transitioned to MHB		MCCM Decedents – Cohort 1 Withdrew from MCCM and Died Without MHB	
		N	% or Mean	N	% or Mean	N	% or Mean	N	% or Mean
Overall		594	100.0%	85	14.3%	494	83.2%	15	2.5%
Age	0–64	32	5.4%	5	5.9%	25	5.1%	2	13.3%
	65–74	184	31.0%	23	27.1%	157	31.8%	4	26.7%
	75–84	246	41.4%	35	41.2%	204	41.3%	7	46.7%
	85+	132	22.2%	22	25.9%	108	21.9%	2	13.3%
Gender	Male	303	51.0%	45	52.9%	250	50.6%	8	53.3%
	Female	291	49.0%	40	47.1%	244	49.4%	7	46.7%
Race & ethnicity*	White	521	87.7%	67	78.8%	442	89.5%	12	80.0%
	Black	51	8.6%	14	16.5%	35	7.1%	2	13.3%
	Hispanic	3	0.5%	0	0.0%	3	0.6%	0	0.0%
	All other	19	3.2%	4	4.7%	14	2.8%	1	6.7%
Census region	South	254	42.8%	28	32.9%	218	44.1%	8	53.3%
	Midwest	173	29.1%	26	30.6%	144	29.1%	3	20.0%
	Northeast	131	22.1%	23	27.1%	105	21.3%	3	20.0%
	West	36	6.1%	8	9.4%	27	5.5%	1	6.7%
	Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Location: Urban/rural	Urban	510	85.9%	70	82.4%	428	86.6%	12	80.0%
	Rural	84	14.1%	15	17.6%	66	13.4%	3	20.0%
Dual eligible	No	540	90.9%	75	88.2%	453	91.7%	12	80.0%
	Yes	54	9.1%	10	11.8%	41	8.3%	3	20.0%

Beneficiary Characteristic		MCCM Decedents – Cohort 1		MCCM Decedents – Cohort 1 Remained in MCCM until death		MCCM Decedents – Cohort 1 Transitioned to MHB		MCCM Decedents – Cohort 1 Withdrew from MCCM and Died Without MHB	
		N	% or Mean	N	% or Mean	N	% or Mean	N	% or Mean
Functional status (MCCM enrollees, only)	Independent	85	14.3%	9	10.6%	75	15.2%	1	6.7%
	Needs some assistance	356	59.9%	54	63.5%	293	59.3%	9	60.0%
	Dependent	153	25.8%	22	25.9%	126	25.5%	5	33.3%
Diagnosis & multimorbidity***	Cancer	362	60.9%	35	41.2%	322	65.2%	5	33.3%
	Congestive heart failure (CHF)	79	13.3%	19	22.4%	55	11.1%	5	33.3%
	Chronic obstructive pulmonary disease (COPD)	56	9.4%	8	9.4%	45	9.1%	3	20.0%
	Other (including HIV/AIDS)	35	5.9%	6	7.1%	29	5.9%	0	0.0%
	COPD + CHF	29	4.9%	11	12.9%	16	3.2%	2	13.3%
	Cancer + COPD	29	4.9%	5	5.9%	24	4.9%	0	0.0%
	Cancer + COPD + CHF	4	0.7%	1	1.2%	3	0.6%	0	0.0%
Comorbidities	Hypertension	441	74.2%	65	76.5%	364	73.7%	12	80.0%
	Hyperlipidemia	354	59.6%	51	60.0%	294	59.5%	9	60.0%
	Anemia	336	56.6%	49	57.6%	275	55.7%	12	80.0%
	Ischemic heart disease**	321	54.0%	54	63.5%	256	51.8%	11	73.3%
	Chronic kidney disease	275	46.3%	44	0.518	221	0.447	10	0.667
CMS Hierarchical condition categories (HCC) risk score ***	Mean score (not %)	2.365	2.012	2.925	2.583	2.240	1.856	3.268	2.560
Marital status	Married	319	53.7%	36	42.4%	278	56.3%	5	33.3%
	Widowed	161	27.1%	25	29.4%	132	26.7%	4	26.7%
	Divorced	54	9.1%	11	12.9%	41	8.3%	2	13.3%
	Never married	35	5.9%	8	9.4%	25	5.1%	2	13.3%
	Declined to report	21	3.5%	4	4.7%	15	3.0%	2	13.3%
	Partner	4	0.7%	1	1.2%	3	0.6%	0	0.0%

Beneficiary Characteristic		MCCM Decedents – Cohort 1		MCCM Decedents – Cohort 1 Remained in MCCM until death		MCCM Decedents – Cohort 1 Transitioned to MHB		MCCM Decedents – Cohort 1 Withdrew from MCCM and Died Without MHB	
		N	% or Mean	N	% or Mean	N	% or Mean	N	% or Mean
Caregiver availability	Spouse	275	46.3%	29	34.1%	243	49.2%	3	20.0%
	Child/children	193	32.5%	33	38.8%	154	31.2%	6	40.0%
	Paid caregiver other than family member	28	4.7%	6	7.1%	21	4.3%	1	6.7%
	No caregiver	26	4.4%	5	5.9%	18	3.6%	3	20.0%
	Other	72	12.2%	12	14.2%	58	11.6%	2	13.4%
Living arrangement	Lives with other person(s)	475	80.0%	66	77.6%	399	80.8%	10	66.7%
	Lives alone	119	20.0%	19	22.4%	95	19.2%	5	33.3%

Source: Abt Associates analysis of Medicare claims, Master beneficiary summary file, and MCCM portal.

Note: Analysis based upon MCCM enrollees with dates of death on or prior to June 30, 2017, less one MCCM enrollee due to a suspect date of death (that came prior to other recorded Medicare claims). Comorbidities are based on the five most common chronic conditions among MCCM enrollees. MCCM decedents – cohort 1 are divided into three groups: (1) Remained in MCCM until death: has no MCCM discharge date prior to death and no hospice claim after MCCM enrollment, (2) Transitioned to MHB: has both an MCCM discharge date and subsequent hospice claim after MCCM enrollment, and (3) Withdrew or from MCCM and Died Without MHB: has MCCM discharge date but no subsequent hospice claim. Chi-square tests were used to identify dissimilarity of composition across the three groups, with statistical significance identified at the 90th (*), 95th (**), and 99th (***) levels. CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease; HIV/AIDS = Human immunodeficiency virus/acquired immunodeficiency syndrome.

Technical Appendix F: Case Study Thematic Matrix

In this appendix, Exhibit F.1 presents an overview of the high-level themes gleaned from qualitative data collection activities, including case studies, interviews with hospices that withdrew, and interviews with hospices having low MCCM enrollment. A total of 42 MCCM hospices participated in these interviews without any overlap in hospices across the three categories. We classified information reported in the various interviews by high-level theme and categorized the information according to qualitative interview topic, wherever possible.

For further information about these interview types, please see Appendix C.

Exhibit F.1: Cross-cutting Themes Observed in Year 1 Qualitative MCCM Interviews and Case Studies

MCCM Research Question*	Qualitative Interview Topic	Case Studies		Interviews with Hospices that Withdrew		Interviews with Hospices having Low Enrollment
		Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=6)
Market/Hospice Characteristics						
9	Characteristics of hospices participating in the model (e.g., size, ownership, location)	See Exhibit 2.3				
9	Competitive marketplace	See Exhibit 2.7				
9	Experience in other alternative payment or care delivery models (federal, state, private)					
	• Affiliated with a health system that is part of an accountable care organization	5	4	2	2	1
	• Independent hospice with formal partnerships with an accountable care organization	2				
	• Experience with relevant state Medicaid programs	1			2	
	• Experience with MCCM-like programs with commercial payers	1		1	1	1
	• Partnership with an OCM-participating oncology practice			1	2	
	• No relevant experience in other payment or care delivery models	3	4	4	1	4
9	Partnerships with health systems, home health agencies, nursing homes, etc.	See Exhibit 2.5				
1	Characteristics of the beneficiary population served (diagnosis mix, special populations served, race/ethnicity)	See Exhibits 2.10 and 2.11				

MCCM Research Question*	Qualitative Interview Topic	Case Studies		Interviews with Hospices that Withdrew		Interviews with Hospices having Low Enrollment
		Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=6)
7	Referral patterns for MCCM					
	• Receive MCCM referrals from the same network as hospice referrals	1	N/A for this report	4	N/A for this report	5
	• Receive most MCCM referrals from specialists treating the MCCM-eligible diagnoses	3		1		
	• Receive most MCCM referrals from palliative care service	5		1		1
	• Expanded referral networks for MCCM outside those who refer to hospice, including home health agencies and community-based social service providers	2		1		
9	Use of technology for MCCM					
	• Hospice uses their electronic health record system for MCCM beneficiaries	10	8	10	N/A for this group of interviewees – not an interview topic	N/A for this group of interviewees – not an interview topic
	• Hospice staff developed an MCCM-specific form in their EHRs to mirror the MCCM portal	8	4			
	• Hospice has some ability to access records from affiliated health systems	5	1			
	• Hospice staff are "double charting" – once in their EHRs and again for the MCCM portal	10		3		
MCCM Implementation						
2, 4, 9	Reasons for organizational and beneficiary participation in the model					
	• Desired to "have a seat at the table" as Medicare considers a new payment model	4	3	1	1	3
	• Had an existing similar program that they wanted to build upon	4	1	3	1	
	• Looking to expand their services and market share and thought MCCM could help	1	1	1	1	
	• Reach more beneficiaries earlier in their disease trajectory without the baggage of "hospice"	5	2	4	3	2
	Marketing and coordination with referring physicians and beneficiaries					
	• Marketing targeted to non-physician providers	5	4	1	0	2
	• Marketing targeted directly to beneficiaries	0	1	0	0	0
	• Marketing approach: centralizing within broader marketing efforts	3	4	2	1	1
	• Marketing approach: specific MCCM outreach	3	1	2	0	3

MCCM Research Question*	Qualitative Interview Topic	Case Studies		Interviews with Hospices that Withdrew		Interviews with Hospices having Low Enrollment
		Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=6)
Delivery of MCCM services						
5, 9	Care coordination across multiple providers [facilitators]					
	• Care coordinators actively connected beneficiaries to community-based services	4	0	0	0	0
	• Care coordinators had access to local health system's EHRs to view data on emergency department (ED) visits or hospitalizations	7	1	1	0	0
	• Hospice has a "warm handoff" process for MCCM beneficiaries who transition to MHB with at least some hospice staff remaining the same despite transition	5	1	0	0	0
5, 9	Care coordination across multiple providers [barriers]					
	• Coordination for uncovered services such as medications or durable medical equipment (DME) was challenging	6	0	0	0	0
	• Receiving information if enrollee visited ED or was hospitalized was difficult	5	0	N/A for this group of interviewees – not an interview topic	N/A for this group of interviewees – not an interview topic	N/A for this group of interviewees – not an interview topic
8	Cost of providing MCCM services					
	• Hired new staff	1				
	• Upgrades to EHRs including developing designated MCCM modules or adding user licenses	4	0	0	0	0

MCCM Research Question*	Qualitative Interview Topic	Case Studies		Interviews with Hospices that Withdrew		Interviews with Hospices having Low Enrollment
		Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=10)	Cohort 2 (N=8)	Cohort 1 (N=6)
9	Staffing for MCCM					
	• Hired new staff designated for MCCM	1	3	2		
	• Existing staff moved into designated MCCM role	9	5	6		6
	• Staff are designated for MCCM (only serve MCCM beneficiaries; beneficiary has a new care team when they transition to hospice)	6		3		1
	• Staff serve both MCCM and hospice beneficiaries (beneficiaries keep the same care team)	4		4	1	5
3	Enrollment challenges	See Section 2.2.4 and Appendix E, Section E.2.2, Exhibit E.5 "Primary Enrollment Challenges Mentioned by Cohort 1 Hospices, by Type of Evaluation Interview"				
9	Data collection and reporting					
MCCM Effectiveness & Perception of Impact						
11	Provider satisfaction with the model					
	• Hospice team staff expressed satisfaction	7	2	2	2	4
	• Referring provider expressed satisfaction (note "n" is not 10)	5	N/A – not an interview topic	N/A – not an interview topic	N/A – not an interview topic	N/A – not an interview topic
10	Effectiveness of learning system activities	See Exhibit 4.13				
14, 16, 17, 18	Perceived impact on:					
	• Access to services	7	2	4	2	4
	• Medicare/Medicaid expenditures	4	0	3	0	2
	• Health outcomes/quality of life at the end of life	9	4	2	1	0
13	Transition to hospice/election of Medicare hospice benefit	See Exhibits 6.1 and 6.2				

* For the full list of MCCM evaluation research questions, please see Appendix B, Exhibit B.1.

Technical Appendix G: Learning and Diffusion Activities Offered to MCCM Hospices

In this appendix, Exhibit G.1 presents a list of learning and diffusion activities offered to MCCM hospices by CMS and the implementation contractor to date.

Exhibit G.1: 2015 Cohort 1 MCCM Webinars and Learning and Diffusion Activities

Date(s)	Session	Description
7/28/2015 & 7/30/2015	MCCM webinar I	Welcome to MCCM
July–December 2015	Monthly meetings	MCCM hospice meetings with CMS Project Officers
8/11/2015 & 8/13/2015	MCCM webinar II	Interactive discussion for questions regarding the final development of MCCM Implementation Plan, required from each participating hospice
8/25/2015 & 8/27/2017	MCCM webinar III	Review of eligibility requirements for MCCM and an introduction to the services and activity log (SAL) through which hospices report MCCM data
9/28/2015–9/29/2015	Cohort 1 onsite training	Two-day in-person training in Baltimore, Maryland with sessions on a range of key implementation topics, including marketing, data submission, billing, and quality. All hospices received binders of information to help them as they get "up and running."
10/20/2015	MCCM webinar IV	Beneficiary transitions while enrolled in MCCM and strategies to optimize communication
11/17/2015	MCCM webinar V	MCCM claims submission process and requirements
12/16/2015 & 12/17/2015	MCCM webinar VI	Session on using the Excel workbook to log MCCM services and activities

Exhibit G.2: 2016 Cohort 1 MCCM Webinars and Learning and Diffusion Activities

Date(s)	Session	Description
1/1/2016–1/30/2016	Office hours	An open forum for cohort 1 hospices to pose questions related to their current and anticipated work on MCCM
3/8/2016, 3/10/2016	March webinar	Introduction to and demonstration of the MCCM Document Management System, Salesforce
5/3/2016	Model updates webinar	Review of design and evaluation goals of MCCM, and introduction of two new changes to the eligibility criteria
5/16/2016	Portal update	CMS grants MCCM portal the Authority to Operate
5/24/2016, 5/26/2016	Portal refresher webinar	Reviewed the transition from Excel worksheets to the MCCM portal; live demonstration of MCCM portal functions and workflows
6/7/2016	Billing and model updates webinar	Discussion of the effects of the eligibility changes with regards to marketing; review of MCCM billing issues reported and clarification about home health services
7/18/2016	Quarterly progress reports webinar	Review of the Hospice Quarterly Progress Report format and strengths-weaknesses-opportunities-threats analysis; Information was also provided about the Salesforce site and the role of the community practitioner in MCCM.
10/14/2016	Enrollment innovation group	Enrollment innovation group launched to determine best strategies for gaining MCCM referrals and enrollment
11/2016	Enrollment innovation group	Enrollment innovation group activities continue
12/15/2016	Billing and other updates	Review/updates regarding MCCM claims and billing.

Exhibit G.3: 2017 Cohort 1 MCCM Webinars and Learning and Diffusion Activities

Date	Event	Description
1/2017	Enrollment innovation group	Enrollment Innovation Group activities conclude
2/2017	Enrollment action groups	Enrollment Action Groups survey sent to cohort 1 hospices in preparation for upcoming affinity groups
2/15/2017	Year 2 kickoff webinar	Webinar to kick off the second year of MCCM implementation for cohort 1 hospices; session included Enrollment Innovation Group "Takeaways"
2/23/2017	Office hours	An open forum for cohort 1 hospices to pose questions related to their current and anticipated work on MCCM
3/2017	Enrollment action groups	Enrollment Action Groups launched to promote an increase in referrals and enrollment in MCCM
3/15/2017	MCCM and palliative care webinar	Dr. Claire Ankuda provided an overview of the relationship between MCCM and palliative care, and hospices shared their experiences with the MCCM model and palliative care services.
March–July 2017	Enrollment action groups	Small group sessions focused on improving MCCM marketing and enrollment. Four groups – A, B, C, D – met biweekly from March until May, and then monthly in June and July.
4/26/2017	Quarterly hospice level reports webinar	Webinar described the hospice-level quarterly reports, including the data available in the report and how hospices can access their report
5/24/2017	Care coordination webinar	CMMI drew upon responses to the care coordination survey to discuss effective care coordination approaches. Abt Associates also provided a brief overview of their approach to considering MCCM costs
6/14/2017	Marketing and outreach webinar	Webinar to describe the findings of the analysis of MCCM hospice implementation plans and market characteristics, understand how to implement a marketing framework to promote MCCM, and explore ways to differentiate MCCM from other services. Kathy Brandt presented a marketing and outreach framework to hospices.
9/6/2017	Enrollment action group summary webinar	Webinar described the 10 best lessons learned from the enrollment action groups
9/20/2017	MAC MCCM processes webinar	Webinar provided important information about the role and duties of the Medicare administrative contractors (MACs), as well as the process for submitting a Notice of Election (NOE) or MCCM claim.
10/18/2017	Quality webinar	Webinar reinforced the goals of MCCM and described MCCM quality monitoring efforts. The webinar also included an MCCM quality exercise, as well as a review of an example hospice-level quality report to show how the report can be used to support MCCM quality efforts.
11/15/2017	MCCM portal training webinar	Webinar provided training to hospices on upcoming changes to the MCCM portal
12/12/2017	MCCM portal question and answer session	An open forum for hospices to pose questions related to the MCCM portal (both cohort 1 and cohort 2 hospices participated)

Exhibit G.4: 2017 Cohort 2 MCCM Webinars and Learning and Diffusion Activities

Date	Event	Description
6/21/2017	Cohort 2 Kickoff Webinar	Webinar provided a high-level overview of key implementation topics, including MCCM design, payment, data submission, and L&D activities. The webinar also reviewed the content of the MCCM Implementation Plan, which hospices were required to complete by 8/31/2017.
6/27/2017	Office Hours	An open forum for cohort 2 hospices to pose questions related to their current and anticipated work on MCCM
7/19/2017	Hospice Responsibilities Webinar	Webinar introduced cohort 2 hospices to the CMMI team, and reviewed MCCM objectives, hospice responsibilities for the participation agreement, hospice responsibilities for beneficiary management, and expectations around hospice engagement in MCCM
7/25/2017	Office Hours	An open forum for cohort 2 hospices to pose questions related to their current and anticipated work on MCCM
7/26/2017	MCCM Portal Specifications Webinar	Webinar provided high-level introduction to the MCCM portal
8/2/2017	Marketing and Outreach Webinar	Kathy Brandt presented a marketing and outreach framework providing potential ideas, strategies, and messaging to help hospices engage new referral sources and new beneficiaries to MCCM.
8/8/2017	Office Hours	An open forum for cohort 2 hospices to pose questions related to their current and anticipated work on MCCM
10/5/2017–10/6/2017	Cohort 2 Onsite Training	Two-day in-person training in Baltimore, Maryland with sessions on a range of key implementation topics, including marketing, data submission, billing, and quality. All hospices received binders of information to help them as they get “up and running.”
10/25/2017	Claims and Billing Deep Dive Webinar	Webinar reinforced the eligible diagnoses and criteria for MCCM, described the process for Notice of Election, and reviewed the claims process. The webinar also included a description of the role of the MACs.
11/14/2017	MCCM Portal Training Part 1	Webinar provided training to hospices on upcoming changes to the MCCM portal
12/5/2017	MCCM Portal Training Part 2	Webinar provided training to hospices on upcoming changes to the MCCM portal
12/12/2017	MCCM Portal Question and Answer Session	An open forum for hospices to pose questions related to the MCCM portal (both cohort 1 and cohort 2 hospices participated)