


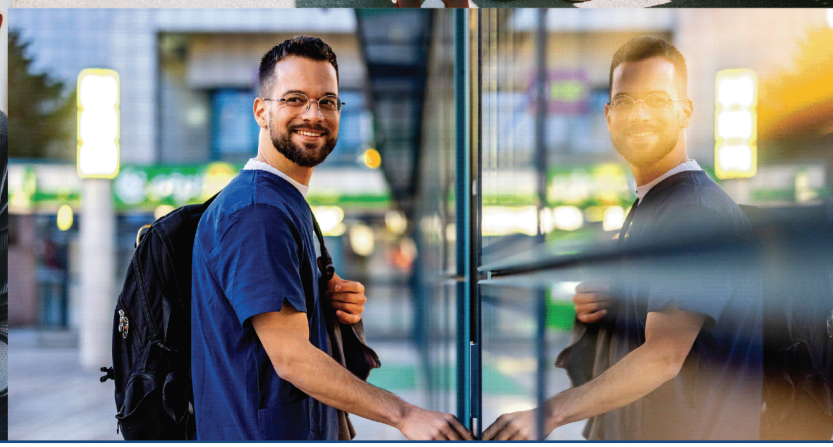

Accountable Health Communities (AHC) Model Evaluation

Final Report

February 2026

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ACCOUNTABLE HEALTH COMMUNITIES (AHC) MODEL EVALUATION FINAL REPORT

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List of Acronyms

ACSC	ambulatory care sensitive condition
AHC	Accountable Health Communities
APM	alternative payment model
CCW	Chronic Conditions Data Warehouse
CDS	clinical delivery site
CMS	Centers for Medicare & Medicaid Services
CSP	community service provider
D-in-D	difference-in-differences
ED	emergency department
FFS	fee-for-service
HICN	Health Insurance Claim Number
HRSN	health-related social need
IDR	Integrated Data Repository
MAX	Medicaid Analytic eXtract
MBI	Medicare Beneficiary Identification
PCP	primary care provider
TAF	T-MSIS Analytic Files
T-MSIS	Transformed Medicaid Statistical Information System

Executive Summary

The Center for Medicare and Medicaid Innovation (Innovation Center) launched the Accountable Health Communities (AHC) Model in 2017. This model was designed to serve beneficiaries with core needs related to upstream drivers of health. The model tested whether connecting these beneficiaries to community resources could reduce health care expenditures and utilization.[1]

Twenty-eight participants, known as bridge organizations, collaborated with clinical partners, community-based organizations, state Medicaid agencies, and other stakeholders. Model participants universally screened all Medicaid and Medicare beneficiaries who received care from clinical partners for five core needs related to their upstream drivers of health, referred to as "core needs." The five core needs were housing instability, food insecurity, transportation problems, utility difficulties, and interpersonal violence. Those who were identified as

[1] The AHC Model previously used "health-related social needs (HRSNs)" to refer to a set of five core needs related to upstream drivers of health: food, transportation, utility, housing, and safety. In this report, we refer to those five needs as "needs" or "core needs" and use "upstream drivers of health" to refer to a broad set of health-related drivers, including but not limited to the five core needs previously referred to as HRSNs. More information about this change is available in the CY 2026 Physician Fee Schedule Final Rule.

having at least one of these core needs were universally referred to community-based organizations. When the model concluded in 2023, participants had screened more than 1 million Medicaid and Medicare beneficiaries for core needs. Of those screened, 37% screened positive for at least one core need, and 18% also reported at least two emergency department (ED) visits in the past 12 months and were community-dwelling, making them eligible to receive navigation services. Navigation services helped connect beneficiaries with community-based organizations who could address their needs.

There were two AHC Model tracks. In one track, the model provided navigation services to support those who needed help finding community resources. In the other track, the model provided these same navigation services while strengthening the relationships between clinical partners and community-based organizations. The two tracks were known as the Assistance and Alignment Tracks:

The AHC Model focused on five core needs:

- Housing instability
- Food insecurity
- Transportation problems
- Utility difficulties
- Interpersonal violence

- **Assistance Track**: Navigation-eligible beneficiaries in the Assistance Track were randomly assigned to an intervention or control group. Beneficiaries assigned to the intervention group received their usual clinical care, a community referral summary with a list of community resources available for their specific needs, and an offer of navigation services. Beneficiaries in the control group received everything beneficiaries in the intervention group received except for an offer of navigation services.
- **Alignment Track**: Navigation-eligible beneficiaries in the Alignment Track were not randomized, so all beneficiaries received the same intervention as the Assistance Track intervention group. In addition to the beneficiary-level intervention, Alignment Track bridge organizations performed a variety of community-level activities, such as community-level continuous quality improvement.

One Model, Two Interventions

The AHC Model used two tracks to separately test interventions to help Medicaid and Medicare beneficiaries with core needs resolve those needs:

The Assistance Track tested universal screening and referral to identify Medicaid and Medicare beneficiaries with core needs and refer them to services, adding navigation assistance to connect eligible beneficiaries to the community services they needed.

The Alignment Track tested universal screening, referral, and navigation *combined with* engaging key stakeholders in community-level continuous quality improvement to align community service capacity with the community's service needs.

This final report details the AHC Model's impacts on key outcomes. The First Evaluation Report, released in December 2020, described the key features of the model (eligibility, interventions, model participants) and the evaluation's goals and design. It also presented baseline data on costs and use, preliminary impact estimates for the Medicare fee-for-service (FFS) population, and assessments of program implementation through 2019. The Second Evaluation Report, released in May 2023, described the structural and organizational characteristics of bridge organizations and community-based organizations, communities' capacity and resources to address core needs, progress on AHC Model activities through 2021, and the impact of the COVID-19 pandemic on the model. The Second Evaluation Report also included estimates of model impacts on costs and health care use for Medicare and Medicaid beneficiaries in both tracks through the fourth year of the model. The Third Evaluation Report built on these earlier findings with an additional year of data, obtained through 2022. The model ended in April 2023. This final evaluation report includes the final impact results for Medicaid, FFS Medicare, and Medicare Advantage

beneficiaries through December 2023. This report also includes final lessons learned, drawing from both the new analyses and previous reports.

Overview of Key Findings

AHC Reduced Expenditures and Improved Quality of Care, as Evidenced by Reductions in Hospital-Based Utilization

Navigation-eligible Medicaid and FFS Medicare beneficiaries in the Assistance Track intervention group had lower total health care expenditures than beneficiaries randomized to the control group (**Exhibit ES-1**). Medicaid beneficiaries in the intervention group also had lower inpatient admissions and unplanned readmissions relative to the control group, indicating that reduced inpatient use—including unplanned readmissions—was a key driver of the lower observed expenditures among Medicaid beneficiaries. FFS Medicare beneficiaries in the intervention group had lower ambulatory care sensitive condition (ACSC) admissions and ED visits, suggesting that use of other emergent services drove lower expenditures among FFS Medicare beneficiaries.

Exhibit ES-1. Impacts on Expenditures and Hospital-Based Utilization

AHC was associated with lower expenditures and hospital-based utilization in both the Medicaid (square) and Medicare (circle) intervention groups.

	Assistance Track	Alignment Track
Total Medicaid/ Medicare Expenditures	■ Medicaid beneficiaries had a **3% reduction** in total expenditures ● FFS Medicare beneficiaries had a **4% reduction** in total expenditures	■ Medicaid beneficiaries had a **7% reduction** in total expenditures
Inpatient admissions	■ Medicaid beneficiaries had a **3% reduction** in all-cause inpatient admissions and a **7% reduction** in unplanned readmissions ● FFS Medicare beneficiaries had an **8% reduction** in ACSC admissions and a **7% reduction** in unplanned readmissions	
ED Visits	● FFS Medicare beneficiaries had a **4% reduction** in ED visits and a **5% reduction** in avoidable ED visits	■ Medicaid beneficiaries had a **3% reduction** in ED visits and a **3% reduction** in avoidable ED visits
Ambulatory Care	■ Medicaid beneficiaries had a **1% reduction** in specialist visits ● FFS Medicare beneficiaries had a **4% reduction** in PCP visits and a **3% reduction** in specialist visits	■ Medicaid beneficiaries had a **5% reduction** in PCP visits ● FFS Medicare beneficiaries had a **4% reduction** in PCP visits

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.
Note: The infographic only highlights impacts that were statistically significant.

Navigation-eligible Medicaid beneficiaries in the Alignment Track also had lower total health care expenditures relative to the comparison group (**Exhibit ES-1**). Lower inpatient admissions and ED visits may have driven the observed reduction in total health care expenditures for Medicaid beneficiaries. We did not find significant impacts for most outcomes among FFS Medicare beneficiaries in the Alignment Track. A set of complementary analyses that aimed to overcome this limitation suggests that the lack of significance was primarily because the sample size was too small to detect impacts, not because the model was ineffective in this population. Moreover, many of the impact estimates among FFS Medicare beneficiaries in the Alignment Track were in the same direction and had a similar magnitude as those observed among FFS Medicare beneficiaries in the Assistance Track.

AHC Generated More than $200 Million in Net Savings

Across both tracks and payers (i.e., Medicaid and FFS Medicare), the AHC Model generated net savings of more than $200 million.

Multiple Mechanisms Could Explain AHC's Successes

We expected that beneficiaries who received navigation services would have greater resolution of needs than those who did not receive navigation services. In turn, this would lead to better health outcomes and reduced health care expenditures. As reported in the Second and Third Evaluation Reports and in Renaud et al. (2023),[2] survey results from a subset of beneficiaries showed that approximately 6 months after screening, beneficiaries who were randomized to the Assistance Track intervention group had similar rates of need resolution to those who were randomized to the Assistance Track control group. Despite this finding, data have consistently shown reductions in hospital-based utilization in the Assistance Track. Moreover, in the Third Evaluation Report, there was evidence that the Assistance Track reduced total health care expenditures. This final report continues to support those findings and provides further evidence of reduced total expenditures for Medicaid beneficiaries in the Alignment Track.

This suggests that the mechanisms underlying the AHC Model's effects may have been more nuanced than originally envisioned. Some other mechanisms that may have led to AHC's successes include the following:

- **Navigators built trust with beneficiaries.** Having a trusted relationship with a navigator may have increased trust in the health care system overall. This could have led to better connection to the health care system and associated providers making care more effective for beneficiaries.
- **Navigators may have had direct impacts on health care utilization.** Interviews with navigators revealed that navigators often went above and beyond in helping their clients. In some cases, navigators would help their clients remember important appointments for ongoing treatment, such as for mental health conditions. Thus, one mechanism that could explain the observed impacts is that navigators leveraged their relationships with clients to help them better navigate the health care system, and better access to care led to improvements in acute health care outcomes. The trust embedded in navigator-beneficiary relationships may have made navigators more effective in this part of their role.
- **Need resolution could have been more likely among certain subpopulations of those navigated.** Results from the Third Evaluation Report showed that certain subpopulations of beneficiaries, such as those with chronic conditions, were more likely to have their needs resolved than others. Thus, navigation could have had more impact on need resolution for these subpopulations. Many of these same subpopulations also had greater reductions in expenditures, hospital-based utilization, or both. Accordingly, needs resolution in these subpopulations could have driven part of the observed overall impacts.

[2] Renaud, J., McClellan, S.R., DePriest, K., et al.: Addressing Health-Related Social Needs Via Community Resources: Lessons From Accountable Health Communities. Health Affairs. 42(6):832-40, 2023. https://doi.org/10.1377/hlthaff.2022.01507

- **Partially addressing needs through navigation could have directly affected health outcomes.** It is likely that even partially addressing a need could affect health and health care outcomes. For example, providing transportation for medical appointments, even if a beneficiary still has other continuing transportation needs, could lead to better outcomes.

Navigation Services Were More Impactful When Provided Alongside Other Medicare Alternative Payment Models

FFS Medicare beneficiaries who participated in one of four other alternative payment models (APMs)[3] at the same time as they participated in the AHC Model had larger reductions in expenditures and hospital-based utilization than beneficiaries who did not. One possible explanation for this finding is that some beneficiaries also in APMs received enhanced care management services alongside the navigation services provided through the AHC Model. In addition, qualitative data collected for this evaluation suggest that navigators performed complementary functions as a care manager or care coordinator for their clients (e.g., providing appointment reminders for medical appointments) in addition to their work connecting beneficiaries to community-based organizations. These care management and care coordination services combined with navigation services may have had synergistic effects on the cost and utilization outcomes.[4]

Navigation Services Were More Impactful for Beneficiaries with Behavioral Health or Chronic Conditions

Evidence from the Third Evaluation Report showed that Medicaid beneficiaries with behavioral health conditions and FFS Medicare beneficiaries with chronic physical health conditions had larger impacts on their expenditures and utilization outcomes. One possible explanation for this finding is that navigators often helped beneficiaries better navigate the health care system, in addition to connecting them with community-based organizations to address their core needs. Accordingly, beneficiaries with behavioral health and chronic conditions were more likely to benefit from this aspect of the beneficiary-navigator relationship.

In the Third Evaluation Report, we also learned that not all communities had sufficient resources to meet the core needs of beneficiaries. Navigators stressed that this made their job much more challenging. These findings suggest that in resource-constrained communities, it may be beneficial to prioritize navigation services to individuals with more complex needs, such as those with behavioral health or chronic conditions.

Different Needs Drove Higher Health Care Expenditures for FFS Medicare Beneficiaries Versus Medicaid Beneficiaries

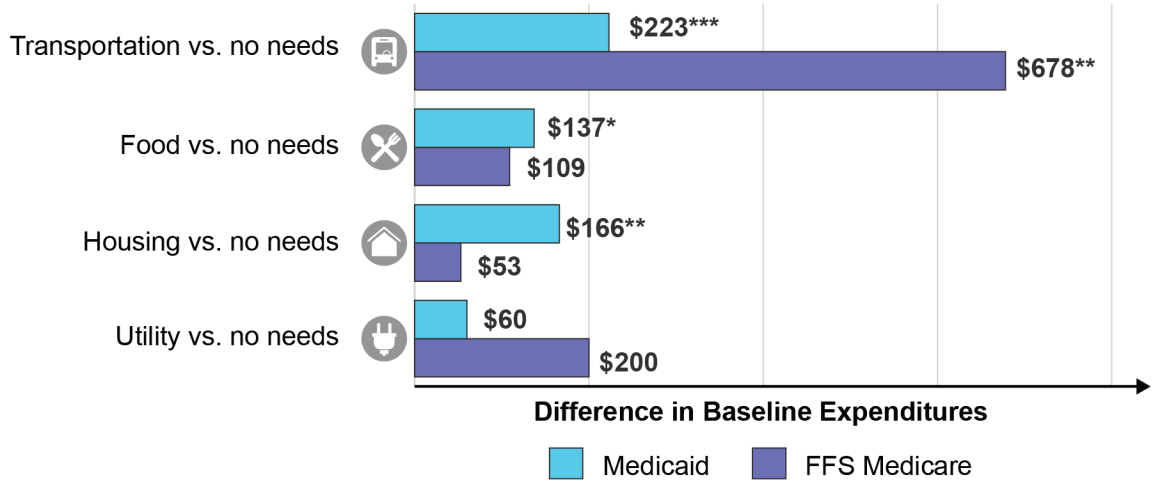
Data from First Evaluation Report showed that core needs generally predict higher health care expenditures. In this report, we explored which specific need(s) predict higher health care expenditures. We found that among FFS Medicare beneficiaries who self-reported two or more ED visits, transportation needs were uniquely associated with higher expenditures (**Exhibit ES-2**). In contrast, among Medicaid beneficiaries, multiple needs (transportation, food, and housing needs) were associated with higher expenditures. Transportation needs may have been uniquely associated with higher expenditures in FFS Medicare because Medicare does not cover nonemergent medical transportation services, whereas Medicaid does in many states. Thus, FFS Medicare beneficiaries with

[3] The four alternative payment models included in this analysis were the Medicare Shared Savings Program, the Next Generation Accountable Care Organization Model, the Comprehensive Primary Care Plus Model, and the Maryland Primary Care Program.

[4] APMs provide care management and care coordination to beneficiaries. However, these services sometimes are used sparingly (e.g., for patients with the greatest clinical need, for short durations after acute episodes of care such as a hospitalization). We did not have data on which beneficiaries received these services, so we could not assess whether these findings are the result of receiving concurrent care management and navigation services.

transportation needs may have a harder time accessing preventive medical care. Poor access to preventive medical care could lead to a heavier reliance on acute and costly medical services, such as hospital care.

Exhibit ES-2. Differences in PBPM Expenditures in the 12 Months Before Screening by Type of Core Need Among Beneficiaries Who Reported Two or More ED Visits



* p < 0.10; ** p < 0.05; *** p < 0.01.
Medicaid sample sizes: 593,815 Medicaid beneficiaries were screened for core needs and reported two or more ED visits. Of these, 333,026 had no core needs. 93,682 had a transportation need, 170,807 had a food need, 123,551 had a housing need, and 84,935 had a utility need.
FFS Medicare sample sizes: 310,185 FFS Medicare beneficiaries were screened for core needs and reported two or more ED visits. Of these, 225,868 had no core needs, 34,274 had a transportation need, 48,234 had a food need, 37,062 had a housing need, and 21,428 had a utility need.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare Claims.
Timeframe: Data cover May 2018–January 2023.
Definitions: ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month.
Notes: This chart presents the difference in total health care expenditures over the 12 months before screening among beneficiaries with each of four core needs versus those with none of the core needs. For example, Medicaid beneficiaries with transportation needs had $223 higher expenditures per beneficiary per month than those with none of the core needs. Beneficiaries who did not report two or more ED visits in the 12 months before screening were excluded from this analysis. The presented differences are regression adjusted for other needs, age, and sex. The sample of beneficiaries with safety needs was too small to provide reliable information. As such, this need has been omitted.

Navigation Services Were Also More Impactful for Beneficiaries with Transportation Needs and for Those with Multiple Needs

AHC had a greater effect on FFS Medicare beneficiaries with transportation needs. These beneficiaries had larger reductions in ED visits and smaller reductions in primary care provider (PCP) visits than beneficiaries without transportation needs. These results suggest that the navigation services these beneficiaries received through this model may have improved their access to preventive medical care. Among Medicaid beneficiaries, beneficiaries with multiple needs experienced larger and more favorable impacts on health care outcomes, including larger reductions in inpatient admissions and ED visits. These results suggest that beneficiaries with multiple needs may have benefited more from navigation services than those with one need only.

Navigation Services Were More Impactful for Beneficiaries Who Were Dually Eligible for Medicare and Medicaid

Impacts on utilization outcomes were greater for those who were dually eligible for Medicare and Medicaid than for those who were only eligible for FFS Medicare. Because dual eligibility indicates a lower income, these results provide another indication that navigation services were particularly impactful for beneficiaries with complex needs. Impacts on expenditures were similar between the two groups.

Conclusion

The AHC Model demonstrated that focusing on patient's needs related to upstream drivers of health can lead to cost savings while maintaining or improving the quality of care beneficiaries receive, as evidenced by reductions in inpatient and ED utilization. Addressing core needs may be particularly impactful for several vulnerable groups, including those with frequent ED visits, chronic or behavioral health conditions, dually eligible for Medicare and Medicaid, transportation needs, and multiple needs. These findings suggest that if resources are scarce, universally screening and referring all beneficiaries and then offering navigation services to those who are most likely to benefit might be a way to use resources efficiently.

More broadly, the AHC Model demonstrated that it is possible to screen for upstream drivers of health on a large scale and that screening can be integrated into the clinical workflow in flexible, patient-centered ways. The model also showed that core needs are prevalent among Medicaid and Medicare beneficiaries, and that most beneficiaries with core needs are receptive to navigation services.

AHC also was more impactful when implemented in the context of other health care reforms. This suggests navigation services can be complementary to the care management and coordination offered as part of value-based care.

The mechanisms that explain AHC's successes may be more nuanced than originally envisioned. Evidence was mixed for whether navigation services did a better job of connecting and resolving needs than referrals alone did. However, partial resolution of beneficiary needs, such as providing transportation to medical appointments, could have improved healthcare utilization. Trust built with navigators could have allowed for improved overall navigation of the healthcare system. Additionally, navigators could have affected health care utilization and expenditures in other ways, such as by reminding beneficiaries of upcoming medical appointments and coordinating with beneficiaries' care managers and providers. Connection and resolution appear more likely for some subpopulations, such as those with chronic conditions, who also have greater reductions in spending and utilization.

Some AHC communities did not have resources to fully meet the demand for services to address core needs.[5] Navigators also reported challenges tracking which community-based organizations had capacity to take on new beneficiaries, leading to some frustrating experiences in trying to connect beneficiaries. Insufficient community resources will be important to address going forward in order for beneficiaries to maximally benefit from screening and navigation services. Advisory boards were helpful in identifying gaps in resources, and can be helpful resources as screening and navigation efforts that started under the AHC Model continue and expand throughout the health care system and communities across the US.

[5] AHC Model funds could not be used to provide resources and services to address core needs.

Chapter 1: Introduction

In April 2017, the Center for Medicare and Medicaid Innovation (Innovation Center) launched the Accountable Health Communities (AHC) Model.This model was designed to serve beneficiaries with core needs related to upstream drivers of health. The model tested whether connecting these beneficiaries to community resources could reduce health care expenditures and utilization.[6]

[6] The AHC Model previously used "health-related social needs (HRSNs)" to refer to a set of five core needs related to upstream drivers of health: food, transportation, utility, housing, and safety. In this report, we refer to those five needs as "needs" or "core needs" and use "upstream drivers of health" to refer to a broad set of health-related drivers, including but not limited to the five core needs previously referred to as HRSNs. More information about this change is available in the CY 2026 Physician Fee Schedule Final Rule.

The AHC Model brought a new focus on upstream drivers of health into the health care delivery system. The Innovation Center funded 32 participants, known as bridge organizations, to launch the AHC Model in communities across the country in collaboration with clinical partners, community-based organizations, state Medicaid agencies, and other community stakeholders. The types of bridge organizations varied across participating communities; they included health systems and hospitals, academic institutions, payers, nonprofit organizations, and others. The AHC Model's initial 5-year period of performance concluded in April 2022, but 18 bridge organizations received no-cost extensions to continue model activities for an additional 3 to 12 months (July 2022 through April 2023).[7]

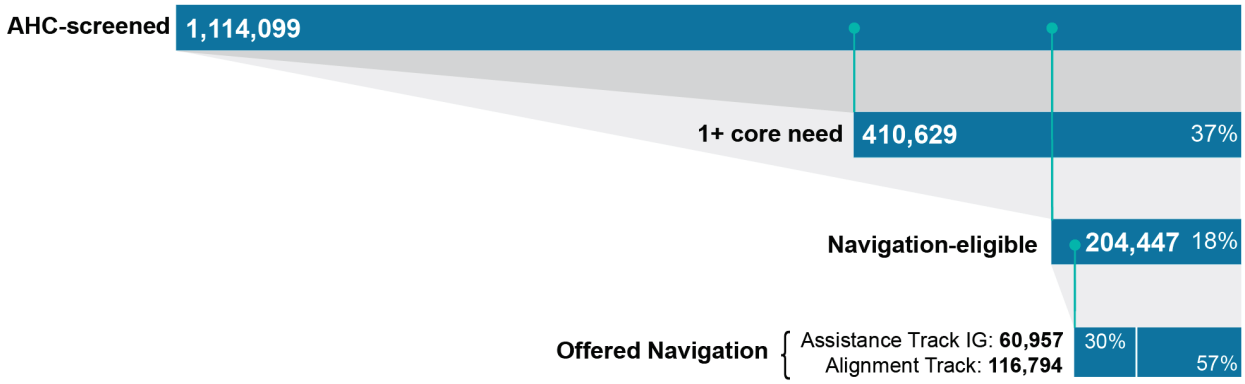
The AHC Model's three main goals:

- Help Medicare and Medicaid beneficiaries with unmet needs connect with community resources through screening, referral, and navigation services
- Optimize community capacity to address core needs through quality improvement, data-driven decision-making, and coordination and alignment of community-based resources
- Reduce inpatient and outpatient health care use and total costs by addressing needs through referral and connection to community services

Community-dwelling Medicare and Medicaid beneficiaries who visited a clinical site that partnered with bridge organizations were screened before, during, or after a clinical encounter using the AHC Health-Related Social Need Screening Tool for five core needs: housing instability, food insecurity, problems with transportation, problems with utilities, and interpersonal violence. Beneficiaries with one or more of the five core needs and two or more emergency department (ED) visits in the 12 months before screening were eligible to receive navigation assistance.

Collectively, bridge organizations screened more than 1 million beneficiaries for needs (**Exhibit 1-1**). Among these, 37% had at least one core need, and 18% were eligible to receive navigation services. To be eligible for navigation, beneficiaries had to have at least one core need, self-report two or more ED visits in the past 12 months, and live in the community. Of those who were navigation-eligible, 87% were offered navigation services.

Exhibit 1-1. Navigation Eligibility of Screened Beneficiaries



[7] The Innovation Center originally funded 32 bridge organizations; 4 voluntarily terminated their participation in the AHC Model.

The model tested two interventions. The Innovation Center launched these interventions in separate tracks (known as Assistance and Alignment), and each AHC Model bridge organization participated in one of the two tracks (see **Exhibit 1-2**).

- **The Assistance Track** tested whether navigation assistance increased resolution of core needs and reduced health care costs and unnecessary use.
- **The Alignment Track** added engagement of key stakeholders in community-level continuous quality improvement to align community service capacity with the community's service needs. The Alignment Track tested whether navigation assistance combined with engaging key stakeholders in continuous quality improvement increased resolution of core needs and reduced health costs and use beyond navigation assistance alone.

Exhibit 1-2. Elements of the AHC Model by Track

Elements of the Model	Assistance Track	Alignment Track
Universal screening of all community-dwelling beneficiaries who seek care from participating clinical delivery sites or other designated sites.	✓	✓
Standardized screening tool that CMS developed to determine beneficiary eligibility for model. May also screen for supplemental needs.	✓	✓
Referrals to community resources for anyone who screened positive for one of the core needs. Referrals were populated from a required database of community-based organizations, which was updated at least every 6 months.	✓	✓
Randomization of navigation-eligible beneficiaries into an intervention group or control group.	✓	
Navigation, which involved in-depth assessment, planning, referral to community services, and follow-up until needs are resolved or determined to be unresolvable.	✓	✓
Community-level continuous quality improvement, which included an advisory board to ensure resources were available to address core needs, data sharing to inform a gap analysis, and a quality improvement plan.		✓

Definitions: CMS = Centers for Medicare & Medicaid Services.

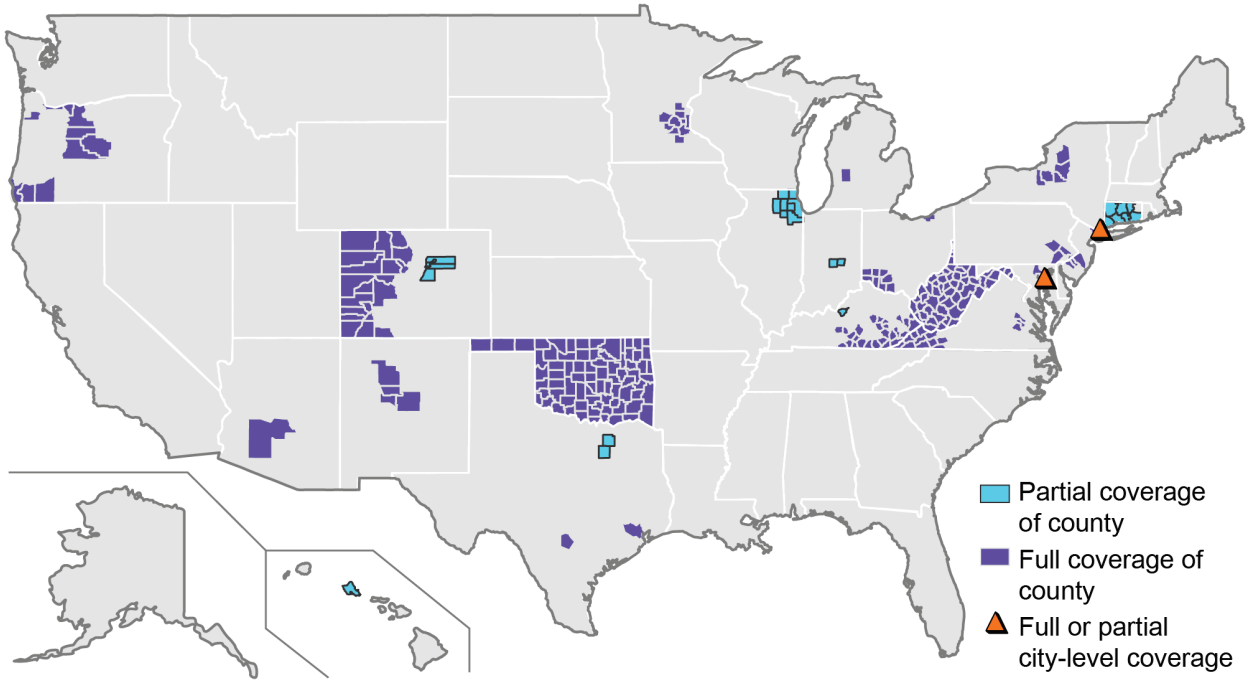
The Innovation Center contracted with RTI International in September 2018 to evaluate the AHC Model's impact on these outcomes and the factors contributing to that impact. Beneficiary screening began in summer 2018.

This final report, prepared by RTI, details the AHC Model's impacts on key outcomes. The First Evaluation Report, released in December 2020, described the key features of the model (eligibility, interventions, model participants) and the evaluation's goals and design. It also presented baseline data on costs and use, preliminary impact estimates for the Medicare fee-for-service (FFS) population, and assessments of program implementation through 2019. The Second Evaluation Report, released in May 2023, described the structural and organizational characteristics of bridge organizations and clinical partners, communities' capacity and resources to address needs, progress on AHC Model activities through 2021, and the impact of the COVID-19 pandemic on the model. The Second Evaluation Report also included estimates of model impacts on costs and health care use for Medicare and Medicaid beneficiaries in both tracks through the fourth year of the model. The Third Evaluation Report built on these earlier findings with an additional year of data, obtained through 2022.

AHC Model Geographic Target Areas

The AHC Model served diverse communities across the United States. Communities varied by location, geography, and urbanicity, often within a single bridge organization (see **Exhibit 1-3**). Most bridge organizations served one or more counties, and most of these counties were metropolitan or an urban cluster with 10,000 to 50,000 residents. Two bridge organizations served an entire state (West Virginia and Oklahoma), and two served a city (Baltimore and New York City) not otherwise part of a county.

Exhibit 1-3. AHC Model Geographic Target Areas



Source: Bridge organization applications and direct communications from the Innovation Center.
Notes: Four bridge organizations exited the model early and are not pictured.

Evaluation Research Objectives

This is the final report for the AHC Model Evaluation. In this report, we address parts of research objectives 1, 3, and 4 of the overall evaluation. Baseline and beneficiary characteristics of the AHC population are presented in Chapter 2. Chapters 3 through 5 present data on impact for the overall population and multiple subpopulations. The Third Evaluation Report and previous reports comprehensively addressed Research Objective 2. However, this report does include an overview of what we have learned about screening and navigation for needs over the course of evaluating this model (Chapter 6, Conclusions and Lessons Learned).

The AHC Model's four research objectives are as follows:

Research Objectives for the AHC Evaluation	
Context 	**1.** Examine the context the AHC Model was launched in to understand the following: a. Characteristics of bridge organizations associated with model success or failure b. Generalizability of model impacts across a wider population
Implementation 	**2.** Examine how the AHC Model was launched to understand the following: a. How variations or similarities in launch affect success or failure b. The generalizability of the AHC interventions
Impact 	**3.** Relative to usual care, examine and estimate the impact of the interventions in the Assistance and Alignment Tracks on health care use, costs, and quality of care
Mechanisms 	**4.** Examine the factors or conditions that brought about model impacts and how these factors affect the generalizability of the AHC interventions

Sources of Evaluation Data

This report uses AHC screening and navigation data to identify the beneficiaries who participated in the model and claims and enrollment data to measure health care outcomes. Medicaid, FFS Medicare, and Medicare Advantage claims and encounter records were available through December 2023. These data cover the entirety of the AHC Model performance period. We draw on insights from past reports throughout, but especially in Chapter 6, which presents our final lessons learned about screening and navigation for needs.

Overview of the Report

The findings for this evaluation report are presented as follows:

- **Chapter 2:** Key Descriptive Characteristics of AHC Beneficiaries
    - The association between individual needs and baseline expenditure
    - Differences in select demographic characteristics between Medicaid and Medicare beneficiaries
    - Assessment of balance across the randomized samples in the Assistance Track

- **Chapter 3:** Impacts on Health Care Expenditures and Utilization
    - Estimates of impacts on costs, health care use, and quality of care for Medicare and Medicaid beneficiaries in both tracks
- **Chapter 4:** Impacts for Those with Transportation Needs or Multiple Needs
    - Differences in impacts for those with transportation needs or multiple needs
- **Chapter 5:** Overlap with Medicare Alternative Payment Models
    - Differences in impacts for subpopulations based on participation in other Medicare models
- **Chapter 6:** Conclusions and Lessons Learned
    - Final lessons learned from the evaluation

Chapter 2: Key Descriptive Characteristics of AHC Beneficiaries

In this chapter, we assess the relationship between core needs and health care expenditures.

In past reports, we demonstrated that core needs also drive health care expenditures, with persistently higher expenditures among those with core needs versus those without core needs. In this report, we expand on this finding by investigating which specific core needs are most heavily associated with higher expenditures.

Findings from this analysis could be useful in resource-scarce settings, as it may suggest which drivers to prioritize in providing navigation services. These analyses also provide context for differences between the Medicaid and Medicare FFS impact results that are presented in Chapter 3, and inform the two subpopulation impact analyses that we present in Chapter 4. The extent to which model impacts generalize within these populations may, in part, be affected by these underlying demographic differences.

This chapter addresses Research Objective 1, which seeks to understand the context of the Accountable Health Communities (AHC) Model.

Key Takeaways

- Transportation needs were a key driver of baseline expenditures in FFS Medicare, which suggests that targeting navigation services and community resources to this need may help reduce overall Medicare expenditures.
- In contrast, multiple needs were associated with higher baseline expenditures in Medicaid, highlighting that targeting navigation services and community resources to Medicaid beneficiaries with multiple needs may be more impactful for Medicaid than for Medicare.
- Most navigation-eligible FFS Medicare beneficiaries were eligible for Medicare because of a disability, raising the possibility that those with physical disabilities and transportation needs could greatly benefit from navigation services.

Key Research Questions

- Were specific needs associated with greater total health care expenditures? If so, to what extent?
- What were the key demographic differences between navigation-eligible Medicaid beneficiaries and navigation-eligible FFS Medicare beneficiaries?
- Did randomization produce well-balanced groups in the Assistance Track?

Background and Methods

In the First Evaluation Report, we showed that requiring beneficiaries to have two or more ED visits and at least one core need effectively identified a population with persistently higher health care expenditures and utilization. Over a 3-year baseline period before screening, beneficiaries who met both criteria had higher expenditures and utilization than those who met only one of the two criteria and relative to those who met neither of the two criteria. Notably, this was true in each of the 3 years before screening, suggesting that core need(s) were a chronic need for beneficiaries who met the AHC Model eligibility. In this chapter, we expand on this finding and explore which specific need(s) drive higher baseline expenditures.

This chapter also presents context for the impact analyses in Chapter 3 and subpopulation analyses in Chapter 4. Specifically, we present key beneficiary characteristics for our two main study samples: Medicaid and FFS Medicare beneficiaries. The key characteristics included in this chapter are an indicator for whether the beneficiary was eligible for Medicaid or Medicare because of a disability and an indicator for having multiple needs at screening. These are the key characteristics we identified as differing across groups. Because further analyses are stratified on Medicaid versus FFS Medicare, it is important to understand whether and how these two populations differ.

The results in this chapter come from the following data sources:

- AHC screening and navigation data linked to Medicaid and Medicare enrollment data
- Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files in the Chronic Conditions Data Warehouse (CCW)
- FFS Medicare research-identifiable files in the CCW

See **Appendix A** for additional details on the data sources and methods. See **Appendixes B** and **C** for detailed results.

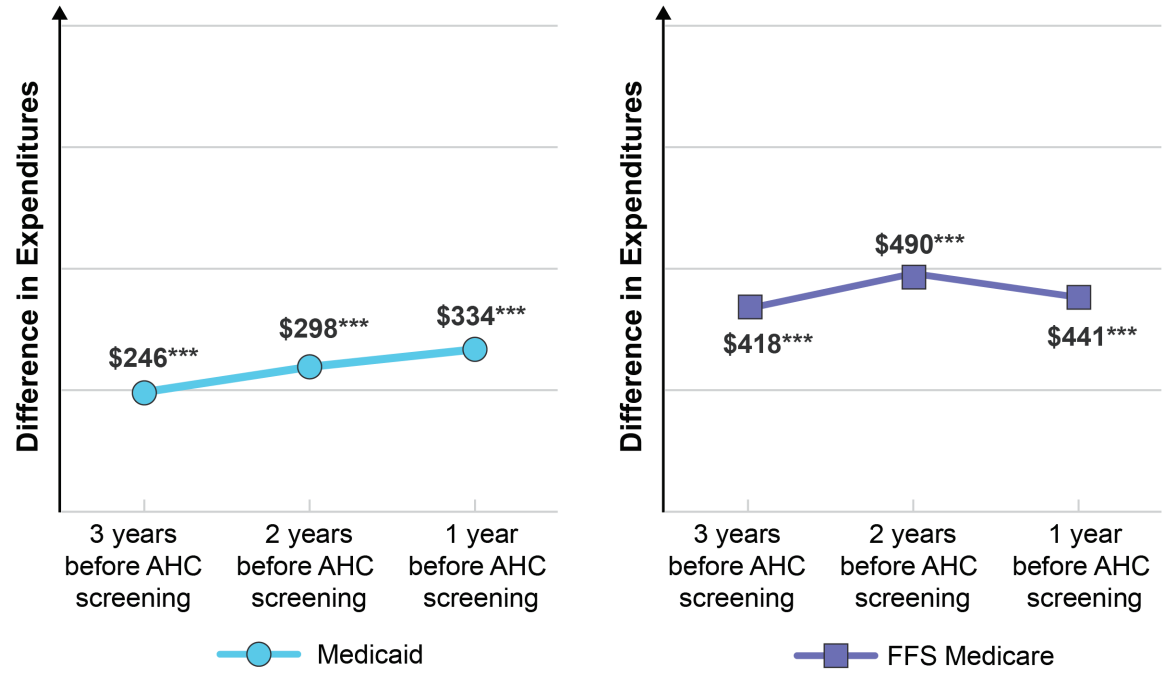
Findings

Beneficiaries with Needs Had Higher Expenditures than Beneficiaries Without Needs

During the 36 months before screening, total Medicare expenditures were $418 to $490 higher per beneficiary per month (PBPM) among FFS beneficiaries with at least one need and two or more ED visits in the last 12 months, compared with those without any needs and two or more ED visits in the last 12 months (**Exhibit 2-1**). Among those with two or more ED visits, Medicaid expenditures were $246 to $334 higher PBPM among those with at least one need compared with those without any needs.

Exhibit 2-1. Differences in PBPM Expenditures Between Those with and Without Core Needs in the 3 Years Before AHC Screening

Medicaid and FFS Medicare expenditures were consistently higher during each of the three years before AHC screening among those who reported at least one core need compared with those who did not report any core needs.



* p < 0.10; ** p < 0.05; *** p < 0.01.
Medicaid sample sizes: 593,815 Medicaid beneficiaries were screened for core needs and reported two or more ED visits.
FFS Medicare sample sizes: 310,185 FFS Medicare beneficiaries were screened for core needs and reported two or more ED visits.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare Claims.
Timeframe: Data cover May 2018–January 2023.
Definitions: ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month.
Notes: This chart presents the difference in total health care expenditures over 36 months before screening among beneficiaries with and without any reported core needs.

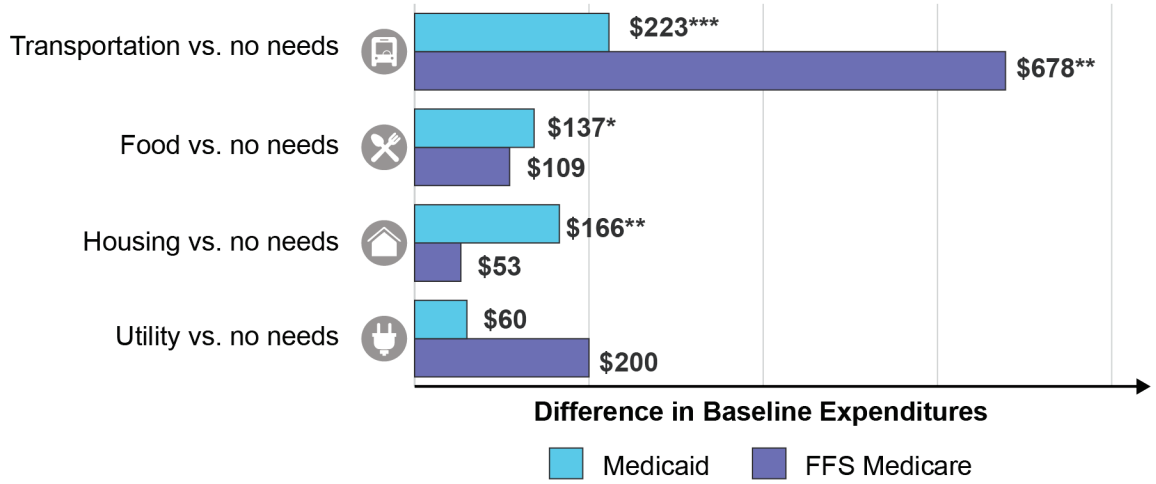
To further assess whether specific needs were associated with greater expenditures, we also compared expenditures during the year before screening for each individual need.

Focusing on Transportation Needs Might Be More Important for Medicare than for Medicaid

During the 12 months before screening, total Medicare expenditures were $678 higher PBPM among FFS Medicare beneficiaries with transportation needs relative to those without any needs (**Exhibit 2-2**). No other needs were individually associated with greater baseline expenditures among FFS Medicare beneficiaries. Transportation needs also were associated with greater Medicaid expenditures at baseline ($223) compared with having no needs, but to a lesser extent than among the FFS Medicare population. Among the Medicaid population, food and housing needs were also independently associated with greater Medicaid expenditures on average compared with having no needs ($137 and $166, respectively). These findings suggest that targeting navigation services toward those with transportation needs may be particularly impactful in reducing Medicare expenditures.

Exhibit 2-2. Differences in PBPM Expenditures in the 12 Months Before Screening by Type of Need Among Beneficiaries Who Reported Two or More ED Visits

Transportation needs were a key driver of baseline expenditures in FFS Medicare, and transportation, housing, and food were each associated with higher baseline expenditures in Medicaid.



* p < 0.10; ** p < 0.05; *** p < 0.01.
Medicaid sample sizes: 593,815 Medicaid beneficiaries were screened for needs and reported two or more ED visits. Of these, 333,026 had no needs. 93,682 had a transportation need, 170,807 had a food need, 123,551 had a housing need, and 84,935 had a utility need.
FFS Medicare sample sizes: 310,185 FFS Medicare beneficiaries were screened for needs and reported two or more ED visits. Of these, 225,868 had no needs, 34,274 had a transportation need, 48,234 had a food need, 37,062 had a housing need, and 21,428 had a utility need.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare Claims.
Timeframe: Data cover May 2018–January 2023.
Definitions: ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month.
Notes: This chart presents the difference in total health care expenditures over the 12 months before screening among beneficiaries with each of four core needs versus those with none of the core needs. For example, Medicaid beneficiaries with transportation needs had $223 higher expenditures per beneficiary per month than those with none of the core needs. Beneficiaries who did not report two or more ED visits in the 12 months before screening were excluded from this analysis. The presented differences are regression adjusted for other needs, age, and sex. The sample of beneficiaries with safety needs was too small to provide reliable information. As such, this need has been omitted.

FFS Medicare Beneficiaries Were More Likely to be Disabled Than Medicaid Beneficiaries, Suggesting That Their Health Needs Were More Complex

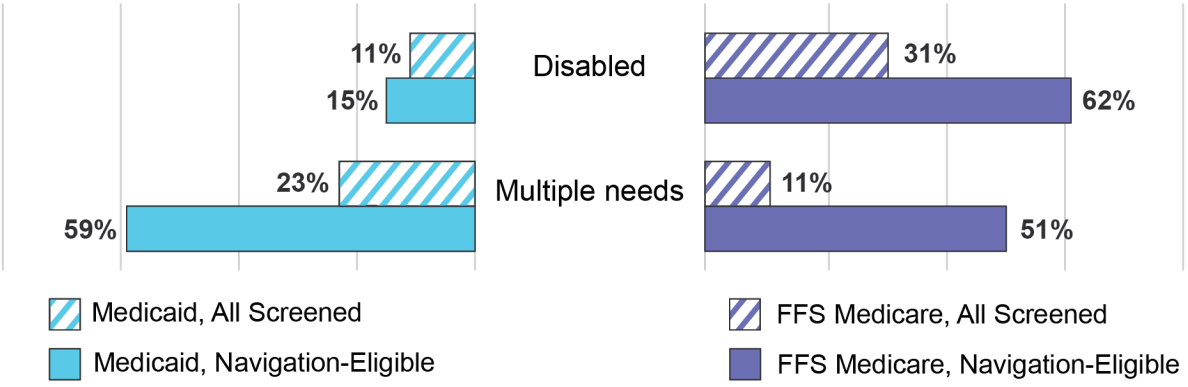
Exhibit 2-3 shows that, among all screened beneficiaries, FFS Medicare beneficiaries were more likely to be disabled than Medicaid beneficiaries.[8] Eleven percent of Medicaid beneficiaries who were screened for AHC were disabled, versus 31% of FFS Medicare beneficiaries. The difference was wider among those who were navigation-eligible. Fifteen percent of navigation-eligible Medicaid beneficiaries were disabled, versus 62% of FFS Medicare beneficiaries. Because beneficiaries with disabilities often have underlying and related health conditions, FFS Medicare beneficiaries may have higher underlying health risks relative to Medicaid beneficiaries. In turn, this suggests that impacts of the AHC Model in the FFS Medicare population may be less likely to generalize to a non-disabled population than impacts in the Medicaid population. Although not shown in **Exhibit 2-3**, over 50% of FFS

[8] Disability is based on enrollment records. The Medicaid and Medicare programs have eligibility criteria based on disabilities. Although the eligibility criteria can differ between programs, those who are eligible for either program because of a disability are similar in the types of disabling conditions that make them eligible.

Medicare beneficiaries in the Medicare sample were dually eligible for Medicare and Medicaid. There is also substantial overlap between disability and dual eligibility for Medicare and Medicaid. In fact, in the AHC sample, approximately 75% of those dually eligible for Medicare and Medicaid were also disabled. Collectively, these data highlight that the FFS Medicare beneficiaries included in our analysis sample were highly complex patients.[9]

Exhibit 2-3. Key Descriptive Characteristics of Medicaid and FFS Medicare Beneficiaries Who Were Screened and Eligible for AHC

Navigation-eligible Medicaid beneficiaries were substantially less likely to be disabled than FFS Medicare beneficiaries. Navigation-eligible FFS Medicare beneficiaries were also more likely to be disabled than all screened FFS Medicare beneficiaries.



Sample size: 117,813 navigation-eligible Medicaid beneficiaries and 32,315 navigation-eligible FFS Medicare beneficiaries.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare Enrollment Data.
Timeframe: May 2018–January 2023.
Definitions: FFS = fee-for-service.

Medicaid Beneficiaries Were More Likely to Report Multiple Needs at Baseline than FFS Medicare Beneficiaries

Exhibit 2-3 also illustrates the percentage of those who were screened and eligible for AHC with multiple needs at baseline. Medicaid beneficiaries were more likely to report multiple needs than FFS Medicare beneficiaries.[10] Among all screened beneficiaries, 23% of Medicaid beneficiaries had multiple needs versus 11% of FFS Medicare beneficiaries. These differences may reflect differences in eligibility requirements for Medicare and Medicaid; Medicaid eligibility requires meeting income thresholds, which likely influences the prevalence of core needs at baseline. Among those who were navigation-eligible, 59% of Medicaid beneficiaries had multiple needs versus 51% of FFS Medicare beneficiaries.

Conclusion

Two takeaways emerged from this chapter's analyses. First, beneficiaries with at least one need consistently had higher Medicare and Medicaid expenditures across 3 baseline years relative to those without any needs. Among FFS Medicare beneficiaries, transportation needs were a primary driver of elevated baseline spending. In contrast,

[9] Data are not shown in Exhibit 2-3 because beneficiaries who were dually eligible for Medicare and Medicaid were excluded from the Medicaid sample and only included in the FFS Medicare sample.
[10] Beneficiaries who were dually eligible for Medicare and Medicaid were excluded from the Medicaid sample and only included in the FFS Medicare sample. Over 50% of FFS Medicare beneficiaries in the Medicare sample were dually eligible for Medicare and Medicaid.

transportation, housing, and food insecurity were each associated with higher baseline spending in Medicaid. Among FFS Medicare beneficiaries, those lacking reliable transportation may be more likely to forgo preventive outpatient care, which may lead to higher acute utilization. This suggests that even partially resolving transportation needs (for example, by helping Medicare beneficiaries get transportation to medical appointments) could have significant impacts on health care utilization and overall Medicare expenditures. To further explore this possibility, **Chapter 4** examines the impact of AHC among Assistance Track FFS Medicare beneficiaries with transportation needs at screening.

Among Medicaid beneficiaries, the association between transportation needs and expenditures was weaker. One likely explanation is that Medicaid programs in many states cover nonemergent medical transportation services, which may mitigate the impact of unmet transportation needs on acute utilization. Also, navigation-eligible Medicaid beneficiaries were more likely to have multiple needs, relative to FFS Medicare beneficiaries (see **Exhibit 2-3**). As described in the Third Evaluation Report, providing effective navigation for beneficiaries with multiple needs may be more challenging than providing navigation for a single need. Nevertheless, our findings suggest that beneficiaries with multiple needs represent a group at risk for high expenditures and acute utilization and may receive greater benefit from navigation services. In **Chapter 4**, we explore this possibility by examining the extent to which the AHC Model uniquely affected Assistance Track Medicaid beneficiaries with multiple needs compared with those with only one need.

Second, Medicaid beneficiaries eligible for navigation services were less likely to have disabilities than FFS Medicare beneficiaries. This difference is in part because most of the FFS Medicare population was dually eligible for Medicare and Medicaid, and the vast majority of the dually eligible population in our sample was disabled. Underlying health risks and other social factors also may be contributing to these differences. Although analyses control for underlying health risks within each payer-specific analysis, these differences may have implications with respect to how well the payer-specific impacts generalize to those without disabilities. Because most navigation-eligible FFS Medicare beneficiaries have a disability, the AHC Model may have a distinct impact on Medicare beneficiaries with a disability and transportation needs. Specifically, among those whose disabilities entail mobility challenges, addressing and resolving transportation needs may be particularly challenging. In **Chapter 3**, we delve into the AHC Model's impacts on expenditures, service utilization, and outcomes for these two populations.

Chapter 3: Impacts on Health Care Expenditures and Utilization

This chapter presents estimates of the impact of the AHC Model relative to usual care (i.e., screening and referral). Outcomes include expenditures, hospital ED and inpatient utilization, and ambulatory care visits.

The Third Evaluation Report presented impact analyses for FFS Medicare beneficiaries in the Assistance and Alignment Tracks through 4 years post-screening, for Medicaid beneficiaries in the Assistance and Alignment Tracks through 3 years post-screening, and for a combined sample of FFS Medicare and Medicare Advantage beneficiaries in the Assistance Track through the first 2 years post-screening. This report adds 1 year of data for the FFS Medicare analysis, 2 years of Medicaid data for the analysis, and 3 years of data for the combined Medicare Advantage and FFS analysis, which increases the number of beneficiaries with multiple data points post-screening. For this report, we include beneficiaries through 4 years post-screening for all payers.

Key Research Questions

- How did the AHC Model affect Medicaid and Medicare beneficiaries' health care costs and other health care outcomes?
- Did impacts differ for the Assistance and Alignment Tracks?

Key Takeaways

- AHC navigation services were associated with lower expenditures in both tracks and across both Medicaid and FFS Medicare beneficiaries, including beneficiaries dually eligible for Medicaid and FFS Medicare.
- Overall, estimates suggest more than $200 million in savings after adjusting for CMS funding to bridge organizations.
- Cost savings were generated by lower hospital-based utilization, indicating improvements in quality of care.
- Primary care use also declined among navigation-eligible beneficiaries, which may indicate that navigation reduced beneficiaries' need to interact with the health care system in general.

continued

Background and Methods

We expected AHC navigation services to lower expenditures and improve quality of care through the resolution of core needs. As needs resolve, health outcomes should improve, both through direct impacts on health and by making it easier for beneficiaries to access and maintain treatment for medical needs (e.g., because of less stress, better transportation). In addition, navigators may have leveraged their role and relationships with beneficiaries to help them seek health care and better navigate the health care system. As a result, we expected declines in hospital use, including fewer inpatient admissions, ambulatory care sensitive condition (ACSC) admissions, unplanned readmissions, ED visits, and avoidable ED visits.

Key Takeaways, Continued

- Impacts on hospital-based utilization and primary care use were stronger among beneficiaries dually eligible for Medicaid and FFS Medicare relative to those eligible for FFS Medicare only.

We also hypothesized that the AHC Model could affect primary care provider (PCP) and specialist visits in multiple ways. Visits could increase if navigator support enabled better access and attention to recommended preventive care by removing barriers, such as lack of transportation, and reducing the strain of other needs, or if trust built with the navigator improved overall engagement with the health care system. In contrast, visits could decrease if beneficiaries' overall health improved directly as needs were addressed.

We also examined whether impacts differed for beneficiaries dually eligible for Medicaid and FFS Medicare, who face additional barriers accessing health care. We expected effects to be stronger for dually eligible beneficiaries because their higher baseline needs create greater opportunity for improvement.

The results in this chapter come from the following data sources:

- AHC screening and navigation data linked to Medicaid and Medicare enrollment data
- T-MSIS Analytic Files in the CCW
- FFS Medicare research-identifiable files in the CCW
- Medicare Advantage encounter records in the Integrated Data Repository

See **Appendix A** for details on the data sources and methods. See **Appendixes B** and **C** for detailed results.

The Third Evaluation Report showed that the Assistance Track intervention and randomized control groups were remarkably similar in baseline health care measures and sociodemographic characteristics. Updated analyses continue to demonstrate baseline similarities between intervention and control groups (see **Exhibits C-1** and **C-2, Appendix C**). The strength of the similarities between the two groups suggests that randomization successfully produced two samples for which the only salient difference is whether the group received navigation services. As such, to estimate the impacts of the AHC Assistance Track intervention, we compared regression-adjusted post-screening measure averages for both groups of beneficiaries. Although the intervention and control groups were well-balanced in all observed sociodemographic characteristics, we conducted regression-adjusted analyses to increase the statistical precision of the impact estimates.

In contrast to the Assistance Track, all Alignment Track beneficiaries were in the intervention group. Accordingly, instead of using a randomized control group, we compared Alignment Track beneficiaries to the Assistance Track's control group. We made this choice because both groups had the same eligibility requirements. Initial checks showed there were some differences between the Alignment Track's intervention group and the Assistance Track's control group. To account for these differences, we used propensity score weighting to make the groups more similar. The impact analyses used a difference-in-differences (D-in-D) regression model. For more information, see **Appendix C**.

The Assistance Track control group that served as the comparison group for both analyses received screening and information about local resources to address their needs. This allowed for an assessment of the impact of adding navigation services but may have dampened the estimated impact of the model in both tracks, as we did not compare to a no-treatment control group.

We used both traditional methods that measures whether an impact is statistically significant or not as well as a complementary Bayesian approach that tells us how strong the evidence is for a hypothesized impact. In most cases, the Bayesian results confirm statistically significant findings. In some cases, the traditional result may not be statistically significant, but the Bayesian result can be more precise and suggest substantial evidence of an impact. In rare cases, the main result could be statistically significant but the Bayesian result reduces our confidence in the main result. This occurs because the traditional result can be influenced by a small number of extreme observations, whereas the Bayesian result de-emphasizes the influence of these extreme observations. Therefore, the Bayesian result may provide a more credible estimate in these rare instances.

When we describe the Bayesian strength of evidence below, we are basing these statements on Bayes factors. Bayes factors less than 3.2 indicate no evidence of an impact; Bayes factors from 3.2 to 10 indicate substantial but not strong evidence of an impact; Bayes factors from 10 to 100 indicate strong evidence of an impact; and Bayes factors greater than 100 indicate decisive evidence of an impact.[11] Additional technical details on the Bayesian approach are in **Appendix A**.

All analyses were conducted by payer type: Medicaid, FFS Medicare, and a combined group of FFS and Medicare Advantage beneficiaries. Beneficiaries who were dually eligible for both Medicare and Medicaid were included in the Medicare samples, as their data would be incomplete in Medicaid claims. Additionally, we evaluated whether the model's impacts varied for beneficiaries who were dually eligible for Medicaid and FFS Medicare. In the Assistance Track, we analyzed differences in the regression-adjusted mean outcomes between the intervention and control groups for dually eligible beneficiaries versus other beneficiaries. For dually eligible beneficiaries in the Alignment Track, we used a triple difference model that multiplied the dual enrollment indicator with each post-period quarter indicator and the Alignment Track indicator.

Findings for the Assistance Track

Exhibit 3-1 summarizes the overall impacts on total expenditures and quality of care for Medicaid and FFS Medicare beneficiaries in the Assistance Track. Full details are in **Exhibit B-4** (Medicaid) and **Exhibit B-10** (FFS Medicare) in **Appendix B**. The Medicare Advantage sample was too small to conduct a separate analysis that only included these beneficiaries. Results for a combined sample of FFS Medicare and Medicare Advantage beneficiaries are also available in Appendix B. The results show similar impacts to the FFS Medicare-only analyses presented below.

AHC Navigation Services Were Associated with Lower Expenditures Among Medicaid Beneficiaries in the Assistance Track

Over the first 4 years after screening, Medicaid beneficiaries in the intervention group of the Assistance Track had 3% lower expenditures ($45 PBPM, $p < 0.05$) relative to the control group. This finding was consistent with expectations of the AHC Model's effect and statistically significant. Additionally, Bayesian results confirmed there was decisive evidence of lower expenditures for Medicaid beneficiaries in the Assistance Track.

[11] Kass, R.E., and Raftery, A.E.: Bayes Factors. Journal of the American Statistical Association. 90(430):791. https://doi.org/10.2307%2F2291091

AHC Navigation Services Were Associated with Lower Expenditures Among FFS Medicare Beneficiaries in the Assistance Track

FFS Medicare beneficiaries in the intervention group of the Assistance Track also had lower expenditures relative to the control group. Over the first 4 years after screening, FFS Medicare beneficiaries in the intervention group had 4% lower expenditures ($111 PBPM, $p < 0.10$) relative to the control group. Bayesian results also suggested substantial evidence for lower expenditures for FFS Medicare beneficiaries in the intervention group.

AHC Navigation Services Were Associated with Lower Hospital Use Among Medicaid Beneficiaries in the Assistance Track

Over the first 4 years after screening, Medicaid beneficiaries in the intervention group had 3% fewer inpatient admissions (3 per 1,000 beneficiaries, $p < 0.05$) and 7% fewer unplanned readmissions (18 per 1,000 discharges, $p < 0.05$) relative to the control group. Bayesian results also suggested strong evidence for fewer inpatient admissions and unplanned readmissions among Medicaid beneficiaries in the intervention group.

Although there was no statistically significant difference in ED visits overall, intervention group beneficiaries did have fewer ED visits and avoidable ED visits in the first year of the model (see **Exhibit B-4**). There was no statistically significant difference or evidence of a difference in the Bayesian analysis for ACSC admissions.

AHC Navigation Services Were Associated with Fewer Specialist Visits Among Medicaid Beneficiaries in the Assistance Track

Medicaid beneficiaries in the intervention group had 1% fewer specialist visits (7 per 1,000 beneficiaries, $p < 0.10$) relative to those in the control group, and the Bayesian results suggested substantial evidence for a reduction in specialist visits. However, there was no statistically significant difference or evidence of a difference in the Bayesian analysis for PCP visits.

AHC Navigation Services Were Associated with Lower Hospital Use Among FFS Medicare Beneficiaries in the Assistance Track

Over the first 4 years after screening, FFS Medicare beneficiaries in the intervention group had 4% fewer ED visits (21 per 1,000 beneficiaries, $p < 0.05$), 5% fewer avoidable ED visits (14 per 1,000 beneficiaries, $p < 0.05$), 8% fewer ACSC admissions (4 per 1,000 beneficiaries, $p < 0.1$), and 7% fewer unplanned readmissions (19 per 1,000 discharges, $p < 0.10$) relative to the control group. Bayesian results also suggested strong evidence for reductions in ED visits, avoidable ED visits, and ACSC admissions and unplanned readmissions, and the reductions were all in the expected direction of impact for the AHC Model.

Although the difference in inpatient admissions was not statistically significant, the Bayesian result suggests substantial evidence that admissions were lower in the intervention group relative to the control group. As noted above, this can happen when the Bayesian approach is more precise than the main analysis.

AHC Navigation Services Were Associated with Fewer PCP and Specialist Visits Among FFS Medicare Beneficiaries in the Assistance Track

FFS Medicare beneficiaries in the intervention group had 5% fewer PCP visits (77 per 1,000 beneficiaries, $p < 0.01$) and 3% fewer specialist visits (51 per 1,000 beneficiaries, $p < 0.01$) relative to those in the control group. The Bayesian results indicated strong evidence for fewer PCP visits among FFS Medicare beneficiaries in the intervention group and decisive evidence for fewer specialist visits.

Exhibit 3-1. Overall Model Impacts for Medicaid and FFS Medicare Beneficiaries in the Assistance Track

Expenditures were lower for both Medicaid and FFS Medicare beneficiaries in the Assistance Track intervention group relative to the control group. However, utilization-based drivers of expenditure impacts differed across payers.

Outcome	Medicaid Beneficiaries			FFS Medicare Beneficiaries		
	Estimate	Relative Difference	Bayesian Strength of Evidence	Estimate	Relative Difference	Bayesian Strength of Evidence
Total expenditures PBPM	**–$45****	**–3%**	**Decisive**	**–$111***	**–4%**	**Substantial**
Inpatient admissions per 1,000 beneficiaries	**–3****	**–3%**	**Strong**	–4	–2%	Substantial
ACSC admissions per 1,000 beneficiaries	0.5	6%	None	**–4.2***	**–8%**	**Strong**
Unplanned readmissions per 1,000 discharges	**–18****	**–7%**	**Strong**	**–19***	**–7%**	**Strong**
ED visits per 1,000 beneficiaries	–1	–0.2%	None	**–21****	**–4%**	**Strong**
Avoidable ED visits per 1,000 beneficiaries	–1	–0.5%	None	**–14****	**–5%**	**Strong**
PCP visits per 1,000 beneficiaries	3	0.2%	None	**–77*****	**–4%**	**Strong**
Specialist visits per 1,000 beneficiaries	**–7***	**–1%**	**Substantial**	**–51*****	**–3%**	**Decisive**

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.
Bolded numbers highlight estimates that are statistically significant ($p < .10$).
Sample size: For Medicaid beneficiaries, there were 35,819 in the intervention group and 15,080 in the control group for utilization measures. Expenditure data excluded Pennsylvania and Indiana because of data anomalies. Expenditures included 28,015 in the intervention group and 11,970 in the control group. For FFS Medicare beneficiaries, there were 15,535 in the intervention group and 6,364 in the control group.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare Claims.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted logistic estimated differences in unplanned readmissions. Weighted Poisson estimated differences for all other outcomes.
Bayesian methods: Complementary Bayesian analyses, with normal priors centered on zero and standard deviations of 100, were conducted. Strength of evidence was based on Bayes factors, with the following interpretations: Bayes factors less than 3.2 indicated no evidence of an impact; Bayes factors from 3.2 to 10 indicated substantial evidence of an impact; Bayes factors from 10 to 100 indicated strong evidence of an impact; and Bayes factors greater than 100 indicated decisive evidence of an impact.
Weight variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Timeframe: Data cover May 2018–December 2023.
Definitions: ACSC = ambulatory care sensitive conditions; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

AHC Navigation Services Were Associated with Stronger Impacts on Health Care Use for Beneficiaries Dually Eligible for Medicaid and FFS Medicare in the Assistance Track

Dually eligible beneficiaries in the Assistance Track experienced stronger impacts (larger relative reductions) in ED visits, avoidable ED visits, ACSC admissions, PCP visits, and specialist visits than beneficiaries only enrolled in FFS Medicare (see **Exhibit B-12** in **Appendix B**).

Beneficiaries who were dually eligible for both FFS Medicare and Medicaid experienced similar impacts on expenditures as those who were only enrolled in FFS Medicare; both groups had lower total FFS Medicare expenditures (see **Exhibit B-15** in **Appendix B**).

Findings for the Alignment Track

Exhibit 3-2 summarizes the overall impacts on total expenditures and quality of care for Medicaid and FFS Medicare beneficiaries in the Alignment Track. Full details are in **Exhibit B-5** (Medicaid) and **Exhibit B-11** (FFS Medicare) in **Appendix B**. Results for a combined sample of FFS Medicare and Medicare Advantage beneficiaries in the Alignment Track are also available in Appendix B. Results were generally similar to the FFS Medicare results presented below, except that we found a statistically significant increase in unplanned readmissions relative to the comparison group, whereas the impact on unplanned readmissions was not significant in the FFS Medicare-only analysis.

Alignment Track impact estimates were broadly consistent with expectations, but most were not statistically significant. This was particularly true for FFS Medicare beneficiaries in the Alignment Track. This may be because the methodology (D-in-D combined with propensity scoring) reduced the statistical power of the analysis.[12] As such, although the sample size in the Alignment Track analyses was larger than in the Assistance Track analyses, the Alignment Track analyses probably were underpowered relative to the Assistance Track analyses.

AHC Navigation Services Were Associated with Lower Expenditures Among Medicaid Beneficiaries in the Alignment Track

Among Medicaid beneficiaries in the Alignment Track, AHC was associated with a 7% decrease in total expenditures ($90 PBPM, $p < 0.10$). Bayesian results confirmed that there was decisive evidence for a decrease in expenditures among Alignment Track Medicaid beneficiaries.

AHC Navigation Services Were Not Associated with Differences in Expenditures Among FFS Medicare Beneficiaries in the Alignment Track

Among FFS Medicare beneficiaries in the Alignment Track, total expenditures declined relative to the comparison group, but the decline was not statistically significant. Bayesian results confirmed that there was almost no evidence of an impact on total expenditures among FFS Medicare beneficiaries in the Alignment Track.

Among Medicaid Beneficiaries in the Alignment Track, Quality-of-Care Outcomes Related to Hospital Use Improved

Among Medicaid beneficiaries in the Alignment Track, AHC was associated with 7% fewer inpatient admissions (a decline of 6 per 1,000 beneficiaries, $p = .05$). However, the Bayesian analysis found almost no evidence for a

[12] Unlike the Assistance Track, the Alignment Track was not randomized. As such, we used the Assistance Track control group with propensity score weighting as the comparison group for the Alignment Track analyses. Additional details can be found in Appendix A. Because we could not rely on randomization, we also needed to use a D-in-D approach to identify impacts. These additional layers of complexity (propensity score weighting, D-in-D) meant that we needed a larger sample size to be adequately powered relative to the Assistance Track analyses.

difference in a change in inpatient admission use. The Bayesian results showed a smaller reduction in inpatient admissions than the main results did. As noted in the methods section, this occurred because the Bayesian approach reduced the influence of a small number of extreme observations. Thus, although the main result was a significant reduction in inpatient admissions, this estimate may not be credible.

ED visits declined slightly in the Alignment Track and increased in the comparison group, resulting in a relative decline of 3% relative to the comparison group (a decline of 22 visits per 1,000 beneficiaries, $p < 0.10$). Likewise, avoidable ED visits declined by 3% more relative to the comparison group (a decline of nine visits per 1,000 beneficiaries, $p < 0.10$). The Bayesian results suggested strong evidence for the change in ED visits and substantial evidence for the change in avoidable ED visits.

Unplanned readmissions also declined relative to the comparison group, but this finding was not statistically significant, and Bayesian results suggested no evidence for a change in readmissions. Changes in ACSC admissions were similar between the intervention group and the comparison group and had no evidence of a difference in the Bayesian analysis.

AHC Navigation Services Were Associated with Fewer PCP Visits Among Medicaid Beneficiaries in the Alignment Track

AHC was also associated with 5% fewer PCP visits (a decline of 65 per 1,000 beneficiaries) relative to the comparison group ($p < 0.10$). The Bayesian analysis confirmed that there was strong evidence for a difference in the change in PCP visits. Specialist visits also declined relative to the comparison group, but this finding was not statistically significant. However, Bayesian results suggested there was substantial evidence for a change in specialist visits.

Among FFS Medicare Beneficiaries in the Alignment Track, Quality-of-Care Outcomes Related to Hospital Use Were Consistent with Expectations

Most outcomes were not significant for FFS Medicare beneficiaries in the Alignment Track. However, results from the complementary Bayesian analyses suggest that—despite a lack of statistical significance—the data provide at least modest evidence that the Alignment Track achieved many of its intended impacts on key outcomes. Specifically, Bayesian results suggest strong evidence of a relative reduction in inpatient admissions and ED visits and decisive evidence of a relative reduction in unplanned readmissions and avoidable ED visits.

AHC Navigation Services Were Associated with a Relative Decline in PCP Visits Among FFS Medicare Beneficiaries in the Alignment Track

PCP visits increased by 4% less in the Alignment Track relative to the comparison group (a relative decline of 70 visits per 1,000 beneficiaries, $p = 0.075$). Bayesian results also confirm the finding that there is decisive evidence of a relative decline in PCP visits. Specialty visits also declined relative to the comparison group, but this finding was not statistically significant, and Bayesian results suggested no evidence of a meaningful change.

Exhibit 3-2. Overall Model Impacts for Medicaid and FFS Medicare Beneficiaries in the Alignment Track

Expenditures and hospital-related utilization after AHC screening declined more for Medicaid beneficiaries in the Alignment Track relative to the comparison group. There also was at least modest evidence for a decline in expenditures and hospital-related utilization for FFS Medicare beneficiaries in the Alignment Track. PCP visits declined among both Medicaid and FFS Medicare beneficiaries in the Alignment Track relative to the comparison group.

Outcome	Medicaid Beneficiaries			FFS Medicare Beneficiaries		
	Estimate	Relative Difference	Bayesian Strength of Evidence	Estimate	Relative Difference	Bayesian Strength of Evidence
Total expenditures PBPM	**–$90***	**–7%**	**Decisive**	–$86	–4%	None
Inpatient admissions per 1,000 beneficiaries	**–6****	**–7%**	None	–5	–3%	Strong
ACSC admissions per 1,000 beneficiaries	–0.2	–2%	None	–0.4	–1%	None
Unplanned readmissions per 1,000 discharges	–2	–1%	None	–8	–3%	Decisive
ED visits per 1,000 beneficiaries	**–22***	**–3%**	**Strong**	–13	–2%	Strong
Avoidable ED visits per 1,000 beneficiaries	**–9***	**–3%**	**Substantial**	–13	–4%	Decisive
PCP visits per 1,000 beneficiaries	**–65***	**–5%**	**Strong**	**–70***	**–4%**	**Decisive**
Specialist visits per 1,000 beneficiaries	–40	–5%	Substantial	–4	–0.2%	None

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.
Bolded numbers highlight estimates that are statistically significant ($p < .10$).
Sample size: There were 68,184 Medicaid beneficiaries in the intervention group and 14,870 in the control group for utilization measures. Expenditure data excluded Pennsylvania and Indiana because of data anomalies. Expenditures included 65,189 Medicaid beneficiaries in the intervention group and 11,752 in the control group. There were 22,315 FFS Medicare beneficiaries in the intervention group and 6,236 in the control group.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare Claims.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted logistic estimated differences in unplanned readmissions. Weighted Poisson estimated differences for all other outcomes.

Bayesian methods: Complementary Bayesian analyses, with normal priors centered on zero and a standard deviation of 100, were conducted. Strength of evidence was based on Bayes factors, with the following interpretations: Bayes factors less than 3.2 indicated no evidence of an impact, Bayes factors from 3.2 to 10 indicated substantial evidence of an impact, Bayes factors from 10 to 100 indicated strong evidence of an impact, and Bayes factors greater than 100 indicated decisive evidence of an impact.
Weight variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Timeframe: Data cover May 2018–December 2023.
Definitions: ACSC = ambulatory care sensitive conditions; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

AHC Navigation Services Were Associated with Stronger Impacts on Avoidable ED Use for Beneficiaries Dually Eligible for Medicaid and FFS Medicare in the Alignment Track

Alignment Track beneficiaries who were dually eligible for Medicaid and FFS Medicare had stronger impacts (larger relative reductions) in avoidable ED visits than beneficiaries only enrolled in FFS Medicare, but impacts on other outcomes did not differ (see **Exhibit B-13** and **Exhibit B-16** in **Appendix B**).

Impacts on Expenditures Suggest the AHC Model Generated Substantial Net Savings

Exhibit 3-3 presents estimates of collective gross and net savings of the AHC Model through December 2023. Gross savings estimates were generated by multiplying the PBPM impacts on total Medicaid or Medicare expenditures by the number of beneficiary months in the intervention group. Net savings estimates were generated by subtracting from gross savings the total amount that CMS funded each of the bridge organizations. More detail on these calculations is available in **Exhibit B-26** in **Appendix B**.

Results show that there were $260.0 million in gross savings generated among Medicaid beneficiaries across the two tracks (90% Confidence Interval [CI]: $456.3 million to $63.8 million) and $66.4 million in gross savings generated among FFS Medicare beneficiaries across the two tracks (90% CI: $125.1 million to $7.6 million) (see **Exhibit B-26** in **Appendix B)**. Collectively, this implies gross savings of $326.4 million (90% CI: $531.2 million to $121.6 million). After subtracting the total amount that CMS funded each bridge organization, net savings were estimated to be $219.6 million (90% CI: $424.5 million to $14.8 million).

Exhibit 3-3. Gross and Net Savings Estimates for the AHC Model

AHC was associated with more than $200 million in net savings.

Type of Savings and Group	Estimate	90% Confidence Interval
Total Gross Savings	$326,420,260	$531,249,985 to $121,590,535
Total Net Savings	$219,632,750	$424,475,668 to $14,789,832

Source: RTI analysis of impact estimates and data from USASpending.gov.
Methods: Gross savings were estimated by multiplying the per-beneficiary-per-month estimates by the number of beneficiary months in the intervention group. Net savings were estimated by subtracting from gross savings the total amount that CMS spent supporting bridge organizations and conducting the evaluation.
Timeframe: Data cover May 2018–December 2023.

Conclusion

AHC navigation services were associated with reductions in both expenditures and hospital use, leading to more than $200 million in net savings. Evidence of reduced expenditures was decisive across both the Assistance and Alignment Tracks for Medicaid beneficiaries and among FFS Medicare beneficiaries in the Assistance Track. Evidence of reductions in hospital use, including ED visits, inpatient admissions, and unplanned readmissions was similarly strong across both tracks and payers. Results were broadly consistent with estimates from the Third Evaluation Report, except that more outcomes were found to be significant in this final report.

These findings of reduced total expenditures and improved quality of care are notable because we hypothesized that improvements in health outcomes and reductions in health care use would require resolving beneficiaries' needs through navigation services. As reported in the Third Evaluation Report, evidence was mixed as to whether navigation services increased beneficiaries' connection with community-based organizations or resolution of their needs, lowering our expectations of seeing reductions in total expenditures and improvements in quality of care. In contrast to our initial expectations, however, bridge organization leaders and other model participants suggested in interviews that navigation alone could directly affect use of health care services, particularly ED use, independent of resolving needs. Respondents reported that the navigation process created trust between the navigator and beneficiary. Navigators may have been able to leverage this trust and their existing relationships with beneficiaries to help patients better navigate the health care system broadly. Some stakeholders also mentioned providing practical assistance, such as transportation to appointments. This may have increased patients' ability to get to medical appointments and adhere to their health care plans and thereby reduced their reliance on the ED. Furthermore, exposure to navigation services may have improved beneficiaries' ability to navigate the health care system in other ways. For example, beneficiaries may have been better able to take advantage of services that case managers or care coordinators provided after experiences working with navigators to address their needs. Reductions in total expenditures and improvements in quality outcomes related to hospital use are also notable because they show that transforming health care delivery to incorporate a focus on upstream drivers is not only feasible but also may lead to improvements in health care outcomes.

The AHC Model was expected to influence PCP visits in various ways; visits might increase if beneficiaries sought more preventive care or decrease if overall health improved. However, findings revealed that PCP visits largely declined relative to the comparison group, alongside reductions in hospital use for the intervention group. This outcome was somewhat surprising, as improved access to primary care often explains reductions in acute, hospital-based care.[13] To explore whether beneficiaries were substituting hospital-based care with other types of outpatient use, we assessed changes in specialist visits, urgent care visits, and all outpatient visits. We expected that these visits could change in similar ways to PCP visits; that is, they could increase if beneficiaries were seeking care in more appropriate settings or could decrease if overall health improved. Specialist visits declined, as did urgent care visits (results not shown) and all outpatient visits (results not shown). Several factors may explain the observed reductions in PCP and specialist visits. First, the control group for the Assistance Track received screening and information about local resources to address their needs. This allowed for an assessment of the impact of adding navigation services but may dampen the estimated impact of the model, as we did not compare to a no-treatment control group. Second, a reduction in service use for the intervention group relative to the comparison group was noted across almost all outcomes, including primary care, specialty care, ED visits, and inpatient stays. It is possible that addressing upstream drivers and providing a point of contact outside the health care system diminished the overall need for health care interactions. Third, PCP visits often changed very little or increased in

[13] We also investigated the potential impact of the COVID-19 pandemic on these findings. During the pandemic, although in-person visits decreased, telehealth appointments increased. Telehealth visits were included in both PCP and specialist visit measures. Even without telehealth in these measures, the effects of COVID-19 appeared similar across both the Assistance Track intervention and control groups, as well as between the Alignment Track intervention and Assistance Track control groups. Consequently, the effects of COVID-19 on PCP utilization were controlled for and do not explain the decline we observed.

the intervention group but increased less than in the control or comparison groups. Finally, improvements in core needs could have contributed to better health outcomes, leading to a decreased need for primary care services. Therefore, these findings suggest that beneficiaries may have received adequate preventive and specialty care while avoiding some unnecessary office visits.

Recognizing that the AHC navigation-eligible population was an inherently higher-risk group, we expected beneficiaries dually eligible for Medicaid and FFS Medicare to experience stronger impacts on (i.e., larger reductions in) hospital-based utilization and expenditures, and potentially different impacts on PCP and specialty visits. We found evidence that this was the case for some utilization outcomes, but not for total expenditures. This may reflect greater difficulty being able to detect statistically significant effects with a smaller sample size, and the sample size needed for adequate power may be greater for expenditure outcomes than for utilization outcomes.[14]

Including beneficiaries who opted out of or did not receive navigation services in our analytic sample may have resulted in underestimates of the true impacts of the AHC Model. Moreover, because of inaccurate or missing data, we could not identify in the Medicare and Medicaid enrollment data for 10% of the beneficiaries who were screened for needs. If the 10% of beneficiaries who could not be identified in the enrollment data differed systematically from those that did, our results would not be generalizable to all Medicare and Medicaid beneficiaries. It is more likely, however, that the data were missing at random because of data entry or other errors, so the 90% who matched were likely representative of all Medicare and Medicaid beneficiaries.

[14] Expenditure data may require a larger sample size because the data are more variable and have larger standard deviations than the utilization data.

Chapter 4: Impacts for Those with Transportation Needs or Multiple Needs

This chapter presents data on whether the AHC Model's impacts for beneficiaries differed by the number or type of need(s) for which they screened. Using the data presented in Chapter 2, we focus on whether impacts differed for FFS Medicare beneficiaries with transportation needs versus those without transportation needs and whether impacts differed for Medicaid beneficiaries with multiple needs versus those with one upstream need.

This chapter addresses part of Research Objective 3, which focuses on the impact of the model.

Key Takeaways

- The impacts of the AHC Model were stronger among Medicaid beneficiaries with multiple needs
- Addressing transportation needs appeared to be essential to achieving health care improvements among FFS Medicare beneficiaries.

Key Research Question

- Were there differences in findings for key outcomes by subpopulations based on needs?

Background and Methods

As demonstrated in the First Evaluation Report, more core needs were associated with higher baseline expenditure and use levels—a finding that updated analyses confirmed (see **Exhibits B-3** and **B-9, Appendix B**). Chapter 2 highlighted that Medicaid beneficiaries were more likely to have multiple core needs and that multiple core needs were associated with higher baseline expenditures.[15] Also, FFS Medicare beneficiaries with transportation needs had higher baseline expenditures than beneficiaries who did not report transportation needs.[16] Drawing from these data and the discussion presented in Chapter 2, we examine in this chapter whether the model had differing impacts on FFS Medicare beneficiaries with transportation needs and Medicaid beneficiaries with multiple core needs.

Nearly 60% of Medicaid beneficiaries had multiple core needs, and approximately 46% of FFS Medicare beneficiaries reported a transportation need.[17] We expected navigation services to have stronger impacts on FFS Medicare beneficiaries with transportation needs and Medicaid beneficiaries with multiple core needs because they had higher baseline health care expenditures and utilization, giving them more potential to benefit from the services. Also, because transportation access was key to addressing beneficiaries' needs (see Third Evaluation Report), we hypothesized that FFS Medicare beneficiaries with transportation needs would particularly benefit from navigation services. Transportation services are not a covered service in FFS Medicare unless for emergent, non-repetitive needs, so the navigation services through AHC may have been especially critical for FFS Medicare beneficiaries with transportation needs. In contrast, Medicaid covers non-emergency medical transportation in many states.

The results in this chapter come from the following data sources:

- AHC screening and navigation data linked to Medicaid and Medicare enrollment data
- T-MSIS Analytic Files in the CCW
- FFS Medicare research-identifiable files in the CCW
- Medicare Advantage encounter records in the Integrated Data Repository

See **Appendix A** for details on the data sources and methods. See **Appendixes B** and **C** for detailed results.

[15] FFS Medicare beneficiaries with multiple core needs had higher baseline utilization and expenditures than beneficiaries with one core need. However, about half of FFS Medicare beneficiaries had multiple core needs, whereas the majority (59%) of Medicaid beneficiaries had multiple core needs. Prior subpopulation analyses reported in the Third Evaluation Report did not find evidence for differential impacts for FFS Medicare beneficiaries with multiple upstream drivers of health.

[16] Approximately 40% of Medicaid beneficiaries had a transportation need. Those with a transportation need also exhibited higher baseline expenditures and utilization than most beneficiaries without a transportation need; however, the pattern was not evident for every outcome. Preliminary analysis indicated that there was no clear pattern of differential impacts for Medicaid beneficiaries with transportation needs relative to those without a transportation need (results not shown).

[17] Fifty-five percent of Medicaid beneficiaries in the Assistance Track intervention group, 61% of Medicaid beneficiaries in the Alignment Track, and 58% of Medicaid beneficiaries in the Assistance Track control group had multiple needs (see **Exhibit B-6** in **Appendix B**). Forty-six percent of FFS Medicare beneficiaries in the Assistance Track intervention group, 46% of FFS Medicare beneficiaries in the Alignment Track, and 49% of FFS Medicare beneficiaries in the Assistance Track control group had transportation needs (see **Exhibit B-14** in **Appendix B**).

The Assistance Track subpopulation analyses modified the general impact analysis approach described in Chapter 3. To test whether the impacts differed by subpopulation, we started by estimating impacts within each subpopulation. In the Assistance Track, we relied on the randomized intervention and control group. Accordingly, we estimated subpopulation-specific impacts by estimating post-screening regression-adjusted differences across the intervention and control groups within each subpopulation. This allowed us to then test and report whether the subpopulation-specific impacts were statistically different.

For the Alignment Track subpopulation analyses, we used a triple difference model in which the subpopulation indicator was multiplied with each of the indicators for each post-period quarter and an indicator for Alignment Track. Our interpretation and discussion focus primarily on the differences in AHC Model impacts between subpopulations.

Findings

We summarize results for Assistance Track beneficiaries below. We do not report Alignment Track results below because the findings were largely not statistically significant. As noted in Chapter 3, this may be because the methodology (triple difference model combined with propensity scoring) reduced the statistical power of the analysis, regardless of the given sample size.[18] Additional details and full Alignment Track results are in **Appendix B** (see **Exhibits B-5,B-6, B-14, and B-15**).

Impacts in the Assistance Track Were Stronger for FFS Medicare Beneficiaries with Transportation Needs Versus Those Without Transportation Needs

Exhibit 4-1 shows that the model's favorable impacts on ED, avoidable ED, and specialist visits were more pronounced among FFS Medicare beneficiaries with transportation needs than among those without transportation needs. In contrast, PCP visits increased non-significantly for those with transportation needs but decreased significantly among those without transportation needs. The impacts on total Medicare expenditures, inpatient admissions, ACSC admissions, and unplanned readmissions did not differ between beneficiaries with and without transportation needs.

Exhibit 4-1. Differences in Impacts for FFS Medicare Beneficiaries with and Without Transportation Needs in the Assistance Track

Compared with those without transportation needs at screening, FFS Medicare beneficiaries with transportation needs had greater reductions in ED visits, avoidable ED visits, and specialist visits. PCP visits increased non-significantly for those with transportation needs but decreased significantly among those without transportation needs.

Outcome/Subpopulation	Estimate	Relative Difference to Control Group, %	P-Value for Test of Equality Across Subgroups[1]
Total expenditures PBPM			
Beneficiaries with transportation needs at screening	–$86*	-2.4%	NS
Beneficiaries without transportation needs at screening	–$97**	-3.5%	
Inpatient admissions per 1,000 beneficiaries			
Beneficiaries with transportation needs at screening	–2	-0.6%	NS
Beneficiaries without transportation needs at screening	–4	-1.9%	

[18] The Alignment Track did not include randomization as the Assistance Track did. As such, we used the Assistance Track control group with propensity score weighting as the comparison group. Additional details can be found in Appendix A.

Outcome/Subpopulation	Estimate	Relative Difference to Control Group, %	P-Value for Test of Equality Across Subgroups[1]
ACSC admissions per 1,000 beneficiaries			
Beneficiaries with transportation needs at screening	–5**	-8.5%	NS
Beneficiaries without transportation needs at screening	–2	-5.4%	
Unplanned readmissions per 1,000 discharges			
Beneficiaries with transportation needs at screening	–20**	-6.5%	NS
Beneficiaries without transportation needs at screening	–15*	-5.7%	
ED visits per 1,000 beneficiaries			
Beneficiaries with transportation needs at screening	**–25*** **	**-4.3%**	**
Beneficiaries without transportation needs at screening	**–3**	**-0.6%**	
Avoidable ED visits per 1,000 beneficiaries			
Beneficiaries with transportation needs at screening	**–18*** **	**-6.8%**	**
Beneficiaries without transportation needs at screening	**–3**	**-1.4%**	
PCP visits per 1,000 beneficiaries			
Beneficiaries with transportation needs at screening	**11**	**0.5%**	***
Beneficiaries without transportation needs at screening	**–124*** **	**-5.9%**	
Specialist visits per 1,000 beneficiaries			
Beneficiaries with transportation needs at screening	**–82*** **	**-4.7%**	***
Beneficiaries without transportation needs at screening	**–25****	**-1.5%**	

* p < 0.10; ** p < 0.05; *** p < 0.01.
Bolded estimates highlight impacts that were statistically significantly different between beneficiaries with transportation needs and beneficiaries without transportation needs.
[1] Tested whether the impact estimate for beneficiaries with transportation needs at screening was different from the impact estimate for beneficiaries without transportation needs at screening. P-values < .10 were considered statistically significant. NS = not statistically significant at p < 0.10.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare claims.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ACSC admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.
Interpretation: A negative value for the estimate indicates that the intervention group had lower expenditures or fewer visits/stays after screening relative to the control group. A positive value indicates that the intervention group had higher expenditures or more visits/stays after screening relative to the control group. The relative difference is the estimate as a percentage of the control group's adjusted mean after screening. For example, for beneficiaries with transportation needs at screening, Assistance Track beneficiaries had $97 (3.5%) lower expenditures after screening relative to the control group.
Weight variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Timeframe: May 2018–December 2023.
Definitions: ACSC = ambulatory care sensitive conditions; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Medicaid Beneficiaries with Multiple Core Needs Had Greater Improvements in Health Care Outcomes Than Those with One Core Need

Exhibit 4-2 shows that the model's favorable impacts on inpatient admissions were more pronounced among Medicaid beneficiaries with multiple needs than among those with one need. Also, ED visits, avoidable ED visits, and PCP visits decreased significantly for those with multiple needs relative to the control group but increased significantly among those with one need. In contrast, the model had stronger, more favorable impacts on

unplanned readmissions among Medicaid beneficiaries with one need than among those with multiple needs. Impacts on total Medicaid expenditures, ACSC admissions, and specialist visits did not differ between beneficiaries with multiple needs and those with one need.

Exhibit 4-2. Differences in Impacts for Medicaid Beneficiaries with Multiple Core Needs Versus Those with One Core Need in the Assistance Track

Compared with those with one need, Medicaid beneficiaries with multiple needs had larger reductions in inpatient admissions, ED visits, avoidable ED visits, and PCP visits. In contrast, unplanned readmission reductions were smaller in this subpopulation relative to those with one need.

Outcome/Subpopulation	Estimate	Relative Difference to Control Group	P-Value for Test of Equality Across Subgroups[1]
Total expenditures PBPM			
Beneficiaries with multiple needs	–$24*	–2.0%	NS
Beneficiaries with one need	–$57***	–5.0%	
Inpatient admissions per 1,000 beneficiaries			
Beneficiaries with multiple needs	**–4****	**–3.8%**	**
Beneficiaries with one need	**–1**	**–0.6%**	
ACSC admissions per 1,000 beneficiaries			
Beneficiaries with multiple needs	1*	6.9%	NS
Beneficiaries with one need	0.3	2.8%	
Unplanned readmissions per 1,000 discharges			
Beneficiaries with multiple needs	**–5**	**–2.5%**	***
Beneficiaries with one need	**–41*****	**–20.3%**	
ED visits per 1,000 beneficiaries			
Beneficiaries with multiple needs	**–7****	**–1.0%**	***
Beneficiaries with one need	**11*****	**1.7%**	
Avoidable ED visits per 1,000 beneficiaries			
Beneficiaries with multiple needs	**–5****	**–1.4%**	***
Beneficiaries with one need	**4****	**1.4%**	
PCP visits per 1,000 beneficiaries			
Beneficiaries with multiple needs	**–19*****	**–1.7%**	***
Beneficiaries with one need	**33*****	**2.8%**	
Specialist visits per 1,000 beneficiaries			
Beneficiaries with multiple needs	–6*	–0.7%	NS
Beneficiaries with one need	–3	–0.4%	

* p < 0.10; ** p < 0.05; *** p < 0.01.

Bolded estimates highlight impacts that were statistically significantly different between beneficiaries with multiple needs and beneficiaries with one need.

[1] Tested whether the impact estimate for beneficiaries with multiple core needs at screening was different from the impact estimate for beneficiaries with one core need. P-values < 0.10 were considered statistically significant.

Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS).

Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ACSC admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.

Interpretation: A negative value for the estimate indicates that the intervention group had lower expenditures or fewer visits/stays after screening relative to the control group. A positive value indicates that the intervention group had higher expenditures or more visits/stays after screening relative to the control group. The relative difference is the estimate as a percentage of the control group's adjusted mean after screening. For example, for beneficiaries with multiple needs, Assistance Track beneficiaries had $24 (2%) lower expenditures after screening relative to the control group.
Weight variable: Number of months during the quarter the beneficiary was eligible for Medicaid divided by 3.
Timeframe: May 2018–December 2023.
Definitions: ACSC = ambulatory care sensitive conditions; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider.

Conclusion

The results in this chapter suggest that the AHC Model had larger, more favorable effects on beneficiaries with transportation needs and multiple needs.

Among FFS Medicare beneficiaries in the Assistance Track, beneficiaries with transportation needs at screening had fewer ED visits, avoidable ED visits, and specialist visits and more PCP visits than those without transportation needs. These findings are not surprising since, as we saw in Chapter 2, transportation needs was the predominant driver of higher health care cost differences among screened FFS Medicare beneficiaries at baseline.[19] Unlike Medicaid, transportation services are not a covered service in FFS Medicare unless for emergent, non-repetitive needs, so the navigation services provided through AHC may have been especially critical for FFS Medicare beneficiaries with transportation needs.[20] The relative increase in PCP visits for those with transportation needs suggests that navigator-facilitated connections to community transportation resources may have helped Medicare FFS beneficiaries get to primary care medical appointments, thereby improving access to primary care in an office setting, including preventive services. Navigators may have also helped beneficiaries navigate the health care system to receive care in the appropriate setting, which may have led to the decrease in specialist visits while PCP visits increased. This increased access to primary care subsequently may have led to the reductions in ED visits that we observed.

Medicaid beneficiaries in the Assistance Track with multiple needs had more pronounced impacts on inpatient admissions, ED visits, and avoidable ED visits than those with one need. This effect may be partly attributed to the higher baseline expenditures of Medicaid beneficiaries with multiple needs (see **Exhibit B-3** in **Appendix B**). Because those with higher baseline expenditures and use had greater opportunity to reduce use, navigator-facilitated connections to community resources may have been especially helpful for Medicaid beneficiaries with multiple core needs in reducing avoidable utilization, such as ED visits and inpatient admissions.

These results that navigation may have been more effective for FFS Medicare and Medicaid beneficiaries with more complex needs further support prior results from the Third Evaluation Report, which showed that Medicaid beneficiaries with behavioral health conditions were more likely to have favorable impacts than those without behavioral health conditions, and that FFS Medicare beneficiaries with chronic physical health conditions were more likely to have favorable impacts than those without chronic physical health conditions. Taken as a whole, this suggests that navigation may be most impactful for beneficiaries with complex needs related to upstream drivers of health, clinical needs, or both.

[19] Also, as reported in the Third Evaluation Report, interviews with beneficiaries and stakeholders from bridge organizations highlighted the critical role of transportation in addressing other upstream drivers.
[20] Most states cover non-emergent medical transportation under their Medicaid programs.

Chapter 5: Overlap with Medicare Alternative Payment Models

This chapter presents an analysis of impacts for a subpopulation of FFS Medicare beneficiaries who were concurrently assigned to one of four Medicare alternative payment models (APMs).

This chapter partially addresses Research Objective 4, which focuses on the mechanisms of the AHC Model.

Key Takeaways

- The AHC Model had greater impacts on beneficiaries who were concurrently assigned to Medicare alternative payment models, suggesting that navigation services complemented the care management and coordination incentivized by these Medicare models.

Key Research Question

- Were there differences in findings for key outcomes by subpopulations based on involvement in overlapping models?

Background and Methods

Just over 40% of FFS Medicare beneficiaries in the AHC Model were concurrently assigned to one of four Medicare APMs (Medicare Shared Savings Program, the Next Generation Accountable Care Organization Model, the Comprehensive Primary Care Plus Model, and the Maryland Primary Care Program; see **Exhibit B-14**, **Appendix B** for prevalence by intervention group). This offered a unique opportunity to test whether the effectiveness of the AHC intervention was bolstered by concurrent participation in APMs. AHC navigation services focused on helping beneficiaries resolve core needs, and the APMs focused on helping manage and coordinate beneficiaries' health care services. While the AHC model placed guardrails to help ensure that bridge organizations' navigation services did not duplicate efforts by health care providers participating in APMs, both navigators and care managers/coordinators sought to forge relationships with the beneficiary. As a result, beneficiaries may have benefited from collaboration between AHC navigators and care managers and coordinators. In addition, the Third Evaluation Report emphasized that navigators were able to spend more time developing relationships with beneficiaries, sometimes going above and beyond expectations to support their clients' needs, which may have increased beneficiaries' trust in the health care system. Trust is vital to the therapeutic alliance formed between a patient and their health care team. For these reasons, we hypothesized that AHC navigation services would be complementary to the care management and care coordination efforts under these APMs. Testing this hypothesis can inform the extent to which continuing to incorporate screening and referral for upstream drivers of health could be beneficial under future APMs.

The results in this chapter come from the following data sources:

- AHC screening and navigation data linked to Medicaid and Medicare enrollment data
- FFS Medicare research-identifiable files in the CCW
- Master Data Management data files in the CCW

See **Appendix A** for details on the data sources and methods. See **Appendixes B** and **C** for more detailed results.

For this analysis, we implemented the same approach used in the subpopulation analyses in **Chapter 4** and examined the same outcomes: total expenditures, inpatient admissions, ACSC admissions, unplanned readmissions, ED visits, avoidable ED visits, PCP visits, and specialist visits.

Findings

The AHC Model Had Greater Impacts on Beneficiaries Assigned to APMs

Exhibit 5-1 shows that health care impacts in the Assistance Track were greater for those assigned to APMs than for those not assigned to APMs. Specifically, among those assigned to APMs, FFS Medicare beneficiaries in the intervention group had significantly fewer expenditures, inpatient admissions, ED visits, avoidable ED visits, PCP visits and specialist visits compared to those in the control group. In contrast, among those not assigned to APMs, beneficiaries in the intervention group had higher or nonsignificant impacts on each of these same outcomes. Statistical testing confirmed that impacts differed for each of these outcomes. The only outcome that did not differ between those who were and were not assigned to APMs was ACSC admissions.

Exhibit 5-1. Differences in Impacts for FFS Medicare Beneficiaries Who Did and Did Not Participate in Other Medicare APMs in the Assistance Track

FFS Medicare beneficiaries assigned to Medicare APMs were more likely to see significant reductions in key health care outcomes, suggesting that AHC navigation complements the approaches employed by these models.

Outcome/Subpopulation	Estimate	Relative Difference to Control Group, %	P-Value for Test of Equality Across Subgroups[1]
Total expenditures PBPM			
Beneficiaries assigned to APMs	**–$235*****	**–7.0%**	***
Beneficiaries not assigned to APMs	**$0**	**0.0%**	
Inpatient admissions per 1,000 beneficiaries			
Beneficiaries assigned to APMs	**–10****	**–3.7%**	*
Beneficiaries not assigned to APMs	**2**	**0.7%**	
ACSC admissions per 1,000 beneficiaries			
Beneficiaries assigned to APMs	–6***	–10.1%	NS
Beneficiaries not assigned to APMs	–2	–3.9%	
Unplanned readmissions per 1,000 discharges			
Beneficiaries assigned to APMs	**–29*****	**–9.7%**	*
Beneficiaries not assigned to APMs	**–7**	**–2.5%**	
ED visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	**–95*****	**–15.6%**	***
Beneficiaries not assigned to APMs	**46*****	**9.7%**	
Avoidable ED visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	**–41*****	**–15.1%**	***
Beneficiaries not assigned to APMs	**13*****	**5.7%**	
PCP visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	**–97*****	**–4.3%**	***
Beneficiaries not assigned to APMs	**–34*****	**–1.6%**	
Specialist visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	**–120*****	**–6.3%**	***
Beneficiaries not assigned to APMs	**7**	**0.5%**	

* p < 0.10; ** p < 0.05; *** p < 0.01.

Bolded estimates highlight impacts that were statistically significantly different between beneficiaries assigned to APMs and beneficiaries not assigned to APMs.

[1] Tested whether the impact estimate for beneficiaries who participated in other Medicare APMs was different from the impact estimate for beneficiaries who did not participate in other Medicare APMs. P-values < 0.10 were considered statistically significant. NS = not statistically significant at p < 0.10.

Source: RTI analysis of Chronic Conditions Warehouse Medicare claims and Master Data Management files.

Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ACSC admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.

Interpretation: A negative value for the estimate indicates that the intervention group had lower expenditures or fewer visits/stays after screening relative to the control group. A positive value indicates that the intervention group had higher expenditures or more visits/stays after screening relative to the control group. The relative difference is the estimate as a percentage of the control group's adjusted mean after screening. For example, for beneficiaries assigned to APMs, Assistance Track beneficiaries had $235 (7%) lower expenditures after screening relative to the control group.

Weight variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Timeframe: May 2018–December 2023.
Definitions: ACSC = ambulatory care sensitive conditions; APM = alternative payment model; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Exhibit 5-2 summarizes the impacts on health care outcomes for Alignment Track beneficiaries assigned to Medicare APMs versus those not assigned to APMs. The only outcome that differed significantly between groups in the Alignment Track was ED visits. However, the impact patterns for other outcomes between those who were and were not assigned to APMs was comparable to what we observed in the Assistance Track. Because the Alignment Track may have been less powered relative to the Assistance Track, this suggests that beneficiary involvement in APMs in the Alignment Track may have complemented the AHC Model in the same way as we observed in the Assistance Track.

Exhibit 5-2. Differences in Impacts for FFS Medicare Beneficiaries Who Did and Did Not Participate in Other Medicare APMs in the Alignment Track

Alignment Track beneficiaries assigned to Medicare APMs were more likely to see larger reductions ED visits.

Outcome/Subpopulation	Estimate	Relative Difference to Control Group, %	P-Value for Test of Equality Across Subgroups[1]
Total expenditures PBPM			
Beneficiaries assigned to APMs	–$327	–14.7%	NS
Beneficiaries not assigned to APMs	–$17	–0.7%	
Inpatient admissions per 1,000 beneficiaries			
Beneficiaries assigned to APMs	–12	–6.0%	NS
Beneficiaries not assigned to APMs	3	1.5%	
ACSC admissions per 1,000 beneficiaries			
Beneficiaries assigned to APMs	–8	–16.6%	NS
Beneficiaries not assigned to APMs	4	8.9%	
Unplanned readmissions per 1,000 discharges			
Beneficiaries assigned to APMs	–12	–4.5%	NS
Beneficiaries not assigned to APMs	–12	–5.4%	
ED visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	**–96***	**–16.1%**	**
Beneficiaries not assigned to APMs	**29**	**5.0%**	
Avoidable ED visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	–37*	–12.8%	NS
Beneficiaries not assigned to APMs	3	1.0%	
PCP visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	–90	–5.5%	NS
Beneficiaries not assigned to APMs	–58	–3.8%	
Specialist visits per 1,000 beneficiaries			
Beneficiaries assigned to APMs	–48	–2.7%	NS
Beneficiaries not assigned to APMs	10	0.6%	

* p < 0.10; ** p < 0.05; *** p < 0.01.
Bolded estimates highlight impacts that were statistically significantly different for those beneficiaries assigned to APMs than for beneficiaries not assigned to APMs.

[1] Tested whether the impact estimate for beneficiaries who participated in other Medicare APMs was different from the impact estimate for beneficiaries who did not participate in other Medicare APMs. P-values < 0.10 were considered statistically significant. NS = not statistically significant at p < 0.10.
Source: RTI analysis of Chronic Conditions Warehouse Medicare claims and Master Data Management files.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ACSC admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.
Interpretation: A negative value for the estimate indicates that the intervention group had larger reductions or smaller increases in expenditures or visits/stays between the baseline and intervention periods relative to the control group. A positive value indicates that the intervention group had smaller reductions or larger increases in expenditures or visits/stays between the baseline and intervention periods relative to the control group. The relative difference is the estimate as a percentage of the control group's adjusted mean during the baseline period. For example, for beneficiaries assigned to APMs, Alignment Track beneficiaries had a $327 (14.7%) smaller increase in expenditures between the baseline and intervention periods relative to the control group.
Weight variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Timeframe: May 2018–December 2023.
Definitions: ACSC = ambulatory care sensitive conditions; APM = alternative payment model; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Conclusion

By comparing FFS Medicare beneficiaries who were concurrently assigned to other Medicare APMs in the Assistance Track intervention group with FFS Medicare beneficiaries who were concurrently assigned to other Medicare APMs in the Assistance Track control group, we found that the AHC Model led to significant reductions in total expenditures and improvements in quality of care in the Assistance Track. We found similar reductions in the Alignment Track, although only the reductions in ED visits and avoidable ED visits were statistically significant.

These results show that the AHC Model had impacts above and beyond any impacts associated with APMs, ruling out the possibility that the AHC model impacts were being driven by concurrent assignment to other Medicare APMs.

In addition, those in the Assistance Track who were concurrently assigned to other Medicare APMs were more likely to see significant reductions in total expenditures and improvements in quality of care compared with those not assigned to these APMs. We found similar results for FFS Medicare beneficiaries in the Alignment Track, although the difference in AHC impacts was only statistically significant for ED visits. These results suggest that navigation services were complementary to the care management and coordination activities these APMs incentivized. For example, warm handoffs between navigators and care managers or coordinators employed by APM model participants may have helped yield greater impacts on health care expenditures and quality of care. AHC navigation services lasted up to 12 months post-screening; after this period, navigators may have transitioned beneficiaries to APM care managers or coordinators to help bridge gaps in care management, reducing the likelihood that beneficiaries would turn to the ED. Conversely, for beneficiaries discharged from the ED or inpatient care, APM care managers or coordinators may have initiated warm handoffs to navigators to ensure continued support in accessing appropriate health care and community services after emergency or acute care ended.

Another possibility is that the difference in AHC Model impacts between beneficiaries assigned to APMs and those not assigned may have been driven by some of the differences between these two groups. For example, beneficiaries assigned to APMs had more chronic conditions (a mean of 7.95 chronic conditions vs. 6.53 for beneficiaries not assigned to APMs in the Assistance Track). The Third Evaluation Report showed that AHC Model impacts were larger among those with chronic conditions. However, differences in the prevalence of chronic conditions were small relative to the large differences in model impacts for APM participants. In a sensitivity analysis of beneficiaries without pulmonary disease and diabetes, we continued to find that beneficiaries concurrently assigned to other Medicare APMs were more likely to see AHC Model impacts than those not assigned to these APMs (see **Exhibits B-17** and **B-21**, **Appendix B)**. We focused on beneficiaries without pulmonary

disease and diabetes because these are the two most prevalent chronic conditions and our previous analysis found larger AHC Model impacts for beneficiaries with these conditions. This sensitivity analysis suggests that underlying health conditions likely cannot explain the entire difference in model impacts observed between those in APMs versus those not in APMs. This analysis suggests that layering navigation services on top of APMs may lead to larger impacts than only providing navigation services.

Chapter 6: Conclusions and Lessons Learned

> The purpose of this chapter is to provide final conclusions and share lessons learned from the AHC Model. We draw on new data presented in this report and on data and conclusions from the three previous evaluation reports.

When Providing Navigation Support for Upstream Drivers of Health, It Is Important to Look for Emerging and Reemerging Needs

Data from the Third Evaluation Report showed that about 40% of beneficiaries who received navigation had at least one core need resolved and 28% had all their core needs resolved. Food needs were particularly persistent across time. Among navigation-eligible beneficiaries who were screened multiple times, 34% screened positive for food needs at multiple screenings. Although some of these cases reflected that their need was not resolved through navigation, some of these cases reflected that the need recurred. Beyond persistent and recurring needs, data also showed that new needs emerged over time. Specifically, survey data showed that almost half of beneficiaries reported new needs roughly 6 months after their initial screening.

Transportation Needs May Be Uniquely Important to Address

Interviews with community-based organizations highlighted the challenges of addressing upstream drivers in communities with few options to address transportation needs. Other needs can be exacerbated by not having transportation. For example, a beneficiary with food and transportation needs could conceivably address their food need by visiting a local food bank. However, without access to reliable transportation to and from a local food bank, this approach becomes much more complicated and less feasible. In addition to these findings in the Third Evaluation Report, data also showed that bridge organizations who had fewer beneficiaries with transportation needs were more likely to have success in connecting and resolving needs than bridge organizations with more beneficiaries with transportation needs.

Descriptive data in this report further highlight that transportation needs are uniquely important. FFS Medicare beneficiaries with transportation needs had substantially higher baseline expenditures relative to those with no upstream drivers. In fact, transportation needs were the key driver of higher baseline Medicare expenditures. One possible explanation for this relationship is that Medicare beneficiaries who do not have access to transportation may find it difficult to get to their nonemergent medical appointments, leading to higher ED visits, which are more costly. This may not be as prevalent in the Medicaid population, as many state Medicaid programs cover nonemergent medical transportation.

Data in this report also showed that FFS Medicare beneficiaries with transportation needs at screening were less likely to have a reduction in PCP visits and more likely to have reduced expenditures and hospital-based utilization. Although not all beneficiaries with transportation needs had their need resolved, it is possible that navigated beneficiaries were more likely to be connected to transportation services than non-navigated beneficiaries. This could have enabled beneficiaries to make necessary PCP visits, leading to improved access to routine and preventive care, reducing hospitalizations and overall expenditures. Thus, even partially addressing transportation needs could lead to significant health care impacts.

AHC Reduced Expenditures and Improved Quality of Care; However, the Mechanisms May Have Been More Nuanced Than Originally Hypothesized

Although the AHC Model had mixed success in resolving needs, especially across the full population, its consistent impact on utilization and expenditures highlights the important role of navigation services. Survey data showed that need resolution rates were equivalent between intervention and control groups. However, certain subpopulations, such as those with multiple needs or chronic conditions, were more likely to have their needs resolved and had better outcomes. This suggests that resolving needs in key subpopulations could be a key explanatory reason for utilization and expenditure impacts. Moreover, it is also possible that some needs were partially resolved (e.g., transportation services for medical appointments could have been provided without resolving other transportation needs), and partially resolving needs could have significant impacts on expenditures and utilization.

Importantly, favorable outcomes were often achieved even when needs remained unresolved. This suggests that navigation itself may be a key mechanism of change. Navigators often developed trusted relationships with beneficiaries and provided consistent support, including practical assistance like appointment reminders, which may have directly influenced health behaviors and outcomes. This was especially evident among subgroups with complex needs, such as Medicaid beneficiaries with behavioral health conditions and FFS Medicare beneficiaries with chronic physical conditions such as diabetes or pulmonary disease.

Data for AHC beneficiaries who were concurrently enrolled in other Medicare APMs further support the idea that navigation services complemented broader care management efforts. These findings suggest that the value of navigation goes beyond connecting people with resources to address upstream drivers of health. More likely, it lies in the relational, trust-building work that enables better engagement with the health care system overall.

Lessons Learned from the AHC Model Evaluation

Several lessons from the AHC experience could inform future interventions aimed at addressing upstream drivers of health.

- AHC achieved cost savings for the Medicaid and FFS Medicare programs and improved health care utilization patterns by reducing ED and inpatient utilization, especially unplanned readmissions. These findings demonstrate that navigation services can reduce costs while improving the quality of care beneficiaries receive.
- AHC's universal screening of all beneficiaries while limiting navigation eligibility to those with two or more ED visits successfully identified those patients with the greatest need for navigation services and most likely to experience cost reductions and quality of care improvements. This shows the value of universal screening and targeted access to navigation services.
- Beneficiaries in APMs who also received navigation services through the AHC Model had stronger reductions in expenditures and hospital use. This suggests that AHC navigation was more effective when complemented by other care delivery reforms and highlights the benefit of embedding interventions to address upstream drivers of health within existing or future care coordination structures. It also signals that navigators can play a complementary role to care managers and coordinators, enhancing communication and reducing gaps in care.
- AHC showed that navigation may be more impactful when targeted to subpopulations with greater complexity, such as individuals with multiple needs, behavioral health conditions in Medicaid, or chronic conditions in Medicare or individuals who were dually eligible for Medicare and Medicaid. If resources are scarce, it may be beneficial to combine universal screening and referral with a narrower focus on populations that are more likely to benefit from navigation services.
- The mechanisms underlying AHC's successes may be more nuanced than originally envisioned. There was mixed evidence as to whether navigation services led to greater connection/resolution of needs relative to referral alone. However, partial resolution of beneficiary needs, trust built with navigators, and higher connection or resolution of needs in subpopulations could have led to the significant impacts on health care expenditures and utilization.
- Many bridge organizations noted that community-based services were underfunded or overwhelmed, which limited the bridge organizations' ability to assist referred beneficiaries. Investment in these services can ensure that interventions are not only identifying needs but also enabling meaningful resolution. Prioritizing systems for effective coordination across health care and social services could facilitate identification and provision of services to address upstream drivers and could allow for better tracking of those services over time.
- Systematically capturing details on navigation services provided to beneficiaries can be burdensome. If feasible though, capturing such data would help provide a better understanding of the ideal number of beneficiary contacts (frequency), length of each successful beneficiary contact (amount), and length of time beneficiary received services (duration) needed to resolve needs. Understanding how much support is needed for different kinds of upstream drivers, and for different types of beneficiaries, could provide

useful information for designing scalable and efficient interventions aimed at addressing upstream drivers of health.

- Effective integration of screening and navigation into clinical workflows requires flexibility and a patient-centered approach to meet the diverse and evolving needs of Medicare and Medicaid beneficiaries. Interventions aimed at addressing upstream drivers of health are more likely to succeed if they can adapt to different populations, practice environments, and resource levels.

Conclusion

The AHC Model showed that transforming health care delivery to address needs related to upstream drivers of health can benefit both patients and the health care system. Addressing these needs can reduce inpatient admissions, unplanned readmissions, and avoidable ED visits, yielding cost savings while improving quality of care. Moreover, the navigation process, rooted in strong relationships, trust, and personalized support, may play a critical role in the transformation. A nuanced approach that integrates social care with medical care enhances the patient experience, ensures patients receive tailored assistance, and can empower them to navigate complex health systems. Understanding the intensity of navigation needed, investing in community service capacity, and aligning initiatives with broader care transformation efforts will achieve the greatest impact.

Appendix A: Data Sources and Methods

This appendix describes the data sources and methods used for the analyses reported in Chapters 2 through 5.

Data Sources

AHC Screening Data

We used the AHC screening data files to identify beneficiaries in the Medicaid and Medicare enrollment data files who were ever screened for the AHC Model and to identify characteristics such as whether those beneficiaries were navigation-eligible, their number and type of core need, and the track with which they were affiliated. We also used the earliest screening date from these files to identify when beneficiaries entered the sample. We used Medicaid and Medicare ID variables and demographic characteristics such as name and address to link the AHC screening data to Medicaid and Medicare files, as described below.

Medicaid Data

We used Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) and Medicaid Analytic eXtract (MAX) files in the Chronic Conditions Data Warehouse (CCW) to derive Medicaid eligibility and enrollment information, demographic characteristics, and expenditure and other health care outcomes for Medicaid beneficiaries who were screened as part of the AHC Model. We used MAX data for a small number of states whose TAF did not extend back for a full 3-year baseline period. For this report, we used Medicaid data from April 2015 through December 2023.

Fee-for-Service (FFS) Medicare Claims Data

We used FFS Medicare enrollment and claims data that the Centers for Medicare & Medicaid Services provided in the CCW to derive expenditure and quality-of-care outcomes for FFS Medicare beneficiaries who were screened as part of the AHC Model. We used both Part A and B claims to create claims-based measures. For this report, we used FFS Medicare data from April 2015 through December 2023.

Medicare Advantage Encounter Data

We used Medicare Advantage tables in the Integrated Data Repository (IDR) to derive quality-of-care outcomes for beneficiaries in the AHC Model enrolled in a Medicare Advantage plan who were screened as part of the AHC Model. Although these data tables are structured differently from the FFS Medicare data, they provide similar information. One exception is that the Medicare Advantage data do not provide reliable expenditure data for constructing expenditure outcomes. For this report, we used Medicare Advantage data from April 2015 through December 2023.

Data Linkage

We started by linking the AHC screening and navigation data to Medicaid and Medicare files in the CCW. Medicaid beneficiaries were identified in the TAF Demographic and Eligibility files, and FFS Medicare and Medicare Advantage beneficiaries were identified in the Master Beneficiary Summary File, which provides a monthly record of FFS Medicare or Medicare Advantage enrollment. We downloaded a list of these beneficiaries and limited

information from the screening and navigation data from the CCW and used that information to identify encounter data records for Medicare Advantage beneficiaries in the IDR.

The AHC screening and navigation data provided three possible identifiers to link to the claims data: Health Insurance Claim Number (HICN), Medicare Beneficiary Identification (MBI), and Medicaid ID. Three issues complicated linking the screening and navigation data to Medicaid files in the CCW. First, in most states, the Medicaid ID for individual beneficiaries in the screening and navigation data were the same as the MSIS ID available on the TAF; however, in six states (Michigan, Minnesota, New Jersey, New Mexico, Rhode Island, and West Virginia), this was not the case. Second, although records in the screening and navigation files that do not have a Medicaid ID were likely Medicare beneficiaries, we found this not always to be true. Moreover, some Medicaid IDs appeared to be invalid. Third, for states where the Medicaid ID is equivalent to the MSIS_ID, the Medicaid IDs were unencrypted MSIS_IDs, whereas the Research-Identifiable File version of the TAF used in these analyses contains an encrypted MSIS_ID. To address these issues, we used the following iterative steps to link screening and navigation data to the Medicaid files in the CCW:

1. For the six states where the Medicaid ID in the screening and navigation data were not equivalent to the MSIS_ID, we linked the Medicaid ID to the Medicaid ID field in the TAF Vital Status File by ID and state to obtain the MSIS_ID.
2. We linked the other beneficiaries to the Vital Status File by matching their MSIS_ID and state to the Medicaid ID and state.
3. For beneficiaries who did not link to the Vital Status File by their Medicaid ID and state or who had a blank Medicaid ID in the screening and navigation data, we then did an exact match to the Vital Status File on five variables—last name, ZIP code, state, gender, and birth date—to obtain the encrypted Medicaid ID.[21]
4. We then linked the MSIS_ID to a crosswalk that provides the encrypted MSIS_ID.
5. We then linked any beneficiary who matched to the Vital Status File to the TAF Demographic and Eligibility files using their encrypted MSIS_ID.

Medicare linkage was similar. The beneficiary identifier in the Medicare files in the CCW (BENE_ID) was not included in the screening and navigation data, so we linked the Medicare files with screening and navigation data files in three steps:

1. We linked beneficiaries who either had an HICN or MBI in the AHC screening and navigation data to separate HICN- and MBI-to-BENE_ID crosswalk files in the CCW.
2. We then linked beneficiaries with an HICN or MBI that was not found in the crosswalk files in Step 1 or who only had a Medicaid ID in the screening and navigation data to a file that crosswalks the beneficiary's name and address with BENE_ID. We found that some beneficiaries who only had a Medicaid ID were in fact dually eligible beneficiaries and thus linked to the Medicare files. Beneficiaries who were dually eligible for both Medicare and Medicaid were included in the Medicare samples only, as their data would be incomplete in Medicaid claims. In this step, we required an exact match on six variables: first initial of first name, last name, gender, ZIP code, state, and birth date.
3. After obtaining BENE_ID, we linked the AHC screening and navigation data file to the Medicare enrollment, FFS Medicare claims, and Medicare Advantage encounter data files in the CCW using BENE_ID or BENE_SK in the IDR after linking BENE_ID to BENE_SK in the BENE_ID-BENE_SK crosswalk file.

Exhibit A-1 summarizes (1) linkages of the screening and navigation data to Medicaid and Medicare data files and (2) the final linked samples identified through these processes. The overall match rate was approximately 90%. The beneficiaries who did not link to the claims data were excluded from the analysis.

[21] This step is analogous to Step 2 for the Medicare linkage. The linking variables differ because initial exploration of the linkage process for Medicaid showed that this list produced a better match rate than the expanded list used for Medicare linking.

Exhibit A-1. Persons Linked From the AHC Screening and Navigation Files to Medicaid and Medicare Enrollment, Claims, and Encounter Data Files

Sample Description	N
Persons screened as of April 2023	1,113,432
Persons linked to Medicaid files	745,104
Medicaid analyses	
Assistance Track beneficiaries (includes control group)	51,198
Alignment Track beneficiaries	68,807
Persons linked to Medicare files	436,507
FFS Medicare analyses	
Assistance Track beneficiaries (includes control group)	14,788
Alignment Track beneficiaries	17,527
Combined Medicare Advantage and FFS Medicare analyses	
Assistance Track beneficiaries (includes control group)	21,841
Alignment Track beneficiaries	26,717

Definitions: AHC = Accountable Health Communities; FFS = fee-for-service.

Measure Specifications

Exhibit A-2 shows the measures included in this report for each payer population. We included the same claims-based measures, when possible, across these three populations. However, expenditure measures are not available for Medicare Advantage beneficiaries because payments are not reported on encounters. Details on the measure specifications for FFS Medicare are below, along with any deviation from the FFS Medicare specification for Medicaid and Medicare Advantage beneficiaries.

Exhibit A-2. Claims-Based Measures for Medicaid, FFS Medicare, and Combined FFS Medicare and Medicare Advantage Analyses

Measure	Medicaid	FFS Medicare	Combined FFS Medicare and Medicare Advantage
Total expenditures	✓	✓	
Inpatient admissions	✓	✓	✓
ACSC admissions	✓	✓	✓
Readmissions[1]	✓	✓	✓
ED visits	✓	✓	✓
Avoidable ED visits	✓	✓	
PCP visits	✓	✓	✓
Specialist visits	✓	✓	✓

[1] For data quality reasons, the combined FFS Medicare and Medicare Advantage analysis used the 30-day all-cause readmission rate per 1,000 discharges. The Medicaid and FFS Medicare analyses used the 30-day unplanned readmission rate per 1,000 discharges.

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.

We calculated all measures in the baseline descriptive analyses for each of the 3 baseline years before screening. Expenditures during each baseline year were calculated on a per-beneficiary per-month (PBPM) basis. Inpatient admissions, ambulatory care sensitive condition (ACSC) admissions, emergency department (ED) visits, avoidable ED visits, primary care provider (PCP) visits, and specialist visits are reported as the number of events in each baseline year per 1,000 beneficiaries. Readmissions are reported as the number of events in each baseline year per 1,000 discharges. Each quality-of-care measure related to hospital or primary care use is a count of the number of events. We included events in a baseline year's total if the discharge or service end date on the claim was during that 12-month period (i.e., the year before screening includes events that occurred during the month when each beneficiary was screened or in the 11 months before that month).

For the impact analyses, we calculated quarterly totals and rates for these measures during multiple pre- and post-screening quarters. We included up to the first 16 quarters after each beneficiary was screened under the AHC Model. Because of rolling entry at the beneficiary level, not all beneficiaries have a full 16 quarters of data observed after they were screened. In all analyses, we included 12 pre-screening quarters for the Alignment Track impact analyses. In contrast, the Assistance Track impact analyses only used post-screening quarters because of successful randomization in the intervention and control groups (see Assistance Track Impact Analysis below).

Measures only include data for beneficiaries who had at least 1 month of eligibility during each observation period (e.g., baseline year or pre- or post-screening quarter). This means that some beneficiaries were not observed continuously throughout the observation period. To account for this, we calculated eligibility fractions for each beneficiary. The eligibility fraction is defined as the total number of months the beneficiary was enrolled in each year divided by 12 or, in the case of quarterly outcomes, the total number of months the beneficiary was enrolled in each quarter divided by 3. For example, a beneficiary enrolled in Medicare for 6 months of a year has an eligibility fraction of 0.5 for that year. In weighted average calculations, the eligibility fractions down-weight observations for beneficiaries who are not eligible for the full year or quarter, so the observations exert less influence on the analyses because greater uncertainty is associated with having less than a full year or quarter of data.

We provide a detailed description of each measure below. Except for the all-cause readmission rate, all measures described below were created for FFS Medicare beneficiaries; measures denoted with an asterisk (*) were also created for the Medicare Advantage population, and measures denoted with a pound symbol (#) were also created

for the Medicaid population. When necessary, we highlight any differences in the measure specifications for Medicare Advantage and Medicaid.

- **Total expenditures[#]:** This measure represents overall net payment amounts from all inpatient and outpatient (facility and professional) claims (i.e., Part A and Part B); it excludes beneficiary cost sharing and pharmacy component expenditures for FFS Medicare beneficiaries (i.e., Part D). For Medicaid, this measure represents all FFS net payment amounts for all inpatient, other therapy, long-term care, and pharmacy claims and all capitated payments. We calculated expenditures on a PBPM basis. For each beneficiary, we calculated PBPM payments as annual or quarterly payments divided by the number of months enrolled during the year or quarter. We included all individuals enrolled in the period in calculating the averages, so the figures also reflect the presence of beneficiaries with zero medical costs. We did not risk-adjust or price-standardize payments across geographic areas. We used final action claims and set negative payments on claims to zero. Pennsylvania and Indiana were excluded from the Medicaid sample for total expenditures because of data anomalies.[22] In the Assistance Track, this resulted in approximately 20% of the sample being excluded, and in the Alignment Track, this resulted in approximately 4% of the sample being excluded.
- **Number of inpatient admissions*[#]:** This measure is a count of admissions to an acute care hospital reported in the inpatient file for the measurement period per beneficiary. For Medicare, we identified all hospital admissions in which the last four digits of the provider values are 0001 through 0879 (acute inpatient) or 1300 through 1399 (critical access hospital). For Medicare Advantage, we identified acute care hospital admissions as those with a claim type code of 4011. For Medicaid, we identified acute care hospital admissions by including all admissions in the MAX and TAF inpatient (IP) files with a type of service that indicated the admission was to an inpatient hospital (type of service = 01 for MAX, bill type = 111 or 112 for TAF). A large portion of admissions were missing admission or discharge dates in the TAF in a few states. Thus, we used the earliest beginning date or latest end date on IP line files for services associated with an admission when the admission or discharge date was missing. We divided the number of admissions for each beneficiary in each year or quarter by that beneficiary's eligibility fraction. We then rounded the number of admissions to the nearest integer.
- **Number of admissions for an ACSC*[#]:** This measure is limited to the population 18 years of age or older. The measure is a count variable that is equal to the number of inpatient discharges that meets the inclusion and exclusion rules for any of the following 11 prevention quality indicators (PQIs) that comprise the Overall Composite (PQI #90):
    - PQI #01, Diabetes Short-Term Complications Admission Rate
    - PQI #03, Diabetes Long-Term Complications Admission Rate
    - PQI #05, Chronic Obstructive Pulmonary Disease or Asthma in Older Adults Admission Rate
    - PQI #07, Hypertension Admission Rate
    - PQI #08, Heart Failure Admission Rate
    - PQI #10, Dehydration Admission Rate
    - PQI #11, Bacterial Pneumonia Admission Rate
    - PQI #12, Urinary Tract Infection Admission Rate
    - PQI #14, Uncontrolled Diabetes Admission Rate

[22] The total expenditures in TAF for Indiana and Pennsylvania differed from the total Medicaid expenditures reported in CMS-64 data, and the two states were outliers in total PBPM expenditures for the AHC beneficiaries.

- PQI #15, Asthma in Younger Adults Admission Rate
- PQI #16, Rate of Lower-Extremity Amputation Among Patients with Diabetes

We divided the number of ACSC admissions for each beneficiary in each year and quarter by that beneficiary's eligibility fraction. We then rounded the number of ACSC admissions to the nearest integer.

- **Unplanned readmission within 30 days of hospital discharge[#]:** This measure was adapted from the Yale all-cause hospital-wide unplanned readmissions measure, released in March 2018.[23] This indicator variable is equal to 1 if there was an unplanned readmission within 30 days to any hospital. We identified an index hospital admission as an inpatient stay with a discharge date within the given measurement period minus 30 days from the end of the period. We included index admissions if the beneficiary was enrolled in FFS Medicare or Medicaid at admission. We excluded index admissions for which the beneficiary did not have 30 days of post-discharge enrollment in Medicare Part A or Medicaid; was transferred to another short-term, acute care hospital; died during hospitalization; was discharged against medical advice; was admitted for a primary psychiatric diagnosis; was admitted for rehabilitation; or was admitted for medical treatment of cancer. We did not count planned admissions as readmissions. Planned admissions include bone marrow, kidney, or other organ transplants; maintenance chemotherapy or rehabilitation; and a list of potentially planned procedures that are not acute or complications of care.
- **All-cause readmissions within 30 days of hospital discharge*:** This measure was used for Medicare Advantage beneficiaries only. We could not calculate unplanned readmissions for these beneficiaries because of the larger rate of missing International Classification of Diseases (ICD) procedure codes on encounter data claims, which are a key input into the Yale unplanned readmission algorithm. This measure is an indicator that is equal to 1 if there were any readmissions within 30 days to any hospital. We identified an index hospital admission as an inpatient stay with a discharge date within the given measurement period minus 30 days from the end of the period. We included an index admission if the beneficiary was enrolled in Medicare Advantage at admission. We excluded index admissions for which the beneficiary did not have 30 days of post-discharge enrollment in Medicare Advantage; was transferred to another short-term, acute care hospital; or died during hospitalization.
- **Number of ED visits*[#]:** This measure is a count of the number of visits to the ED that did not result in an inpatient hospital admission and the number of observation stays per beneficiary per measurement period. For all data sources, we identified ED visits as claims and encounters with a line-item revenue center code equal to 0450 through 0459 or 0981 (ED care). For Medicaid, because revenue codes may be incomplete in the MAX and TAF files, we also identified ED visits where the place-of-service code is equal to 23 and the procedure code is equal to 99281, 99282, 99283, 99284, or 99285. For all data sources, we excluded claims and encounters where every line item has a procedure code equal to any of the following values: 70000 through 89999. This criterion excluded claims and encounters for radiological or pathology/laboratory services only. For all data sources, we identified observation stays as claims or encounters with a line-item revenue center code equal to 0760 and a Current Procedural Terminology (CPT) code equal to G0378. Additionally, claims or encounters where a line-item revenue center code equal to 0762 (treatment or observation room) were also counted as observation stays. If multiple ED visits or observation stays were observed on a single day, then we only counted these visits or stays as one ED visit or stay. We divided the number of ED visits for each beneficiary in each year and quarter by that beneficiary's eligibility fraction. We then rounded the number of ED visits to the nearest integer.

[23] Yale New Haven Health Services Corporation–Center for Outcomes Research & Evaluation: All-Cause Hospital-Wide Measure Updates and Specifications Report: Hospital-Level 30-Day Risk-Standardized Readmission Measure, Version 7.0. 2018.

- **Preventable/avoidable ED visits[#]:** This measure was created using the NYU algorithm[24] for identifying emergency care provided in an ED that is for a condition that might have been avoided if timely and effective ambulatory care had been provided. The algorithm assigns a weight between 0 and 100 for each primary diagnosis code that could appear on an ED claim, and these weights can then be used to construct a measure of the weighted average number of ED visits that were potentially preventable or avoidable.
- **Number of PCP visits*[#]:** This measure is the number of in-person or telehealth primary care visits during the measurement period per beneficiary. PCP visits were identified using CPT codes associated with evaluation and management (E&M) visits and revenue center codes associated with ambulatory care. The codes used are those in the 2016 Healthcare Effectiveness Data and Information Set Ambulatory Visit Value Set listed below (either one of the Healthcare Common Procedure Coding System [HCPCS] codes or one of the revenue center codes):
    - HCPCS codes: 99201–99205, 99211–99215, 99241–99245, 99341–99345, 99347–99350, 99381–99387, 99391–99397, 99401–99404, 99411, 99412, 99420, 99429, G0403, G0438, G0439, T1015, 92002, 92004, 92012, 92014, 99304–99310, 99315, 99316, 99318, 99324–99328, 99334–99337, S0620, or S0621
    - Revenue center codes: 0519–0529, 0982, or 0983

    Telehealth visits were identified using the following:

    - HCPCS codes 99202–99215, 99341–99345, 99347–99350, G0438, G0439, 92002, 92004, 92012, 92014, 99304–99310, 99315, 99316, 99324–99328, 99334–99337, 99441–99443, and HCPCS modifier 95 or GT
    - HCPCS codes 99421–99423, G2061–G2063, G2012, or G2010

    Visits were then classified as a primary care visit if the provider's specialty was any of the following:

    - 01: General practice
    - 08: Family practice
    - 11: Internal medicine
    - 37: Pediatrics
    - 38: Geriatric medicine
    - 50: Nurse practitioner
    - 70: Multispecialty clinic or group practice
    - 84: Preventive medicine
    - 89: Certified clinical nurse specialist
    - 97: Physician assistant

Medicare Advantage does not have a reliable provider specialty field; instead, we used taxonomy codes for the rendering provider on E&M claims and encounters. The taxonomy codes were chosen to align with the specialty types identified in FFS Medicare claims. Medicaid data contains a provider specialty field and taxonomy field. We used the provider specialty field and filled in missing provider specialty codes with the taxonomy code.

[24] Billings, J., Parikh, N., and Mijanovich, T.: Emergency department use: the New York story. *Commonw. Fund Issue Brief* 434:1–12, 2000.

- **Number of specialist visits*#:** This measure is the number of in-person or telehealth specialty care visits during the measurement period per beneficiary. Specialty visits were identified using the same CPT codes associated with E&M visits and revenue center codes associated with ambulatory care. We counted specialty visits as those that were identified as an E&M visit in the PCP visit measure but were not classified as a primary care visit.

Statistical Methods

This section presents the statistical methods used to measure (1) the association between needs and baseline outcomes and (2) the impacts of the AHC Model among Medicaid and FFS Medicare beneficiaries in the Assistance Track and Alignment Track.

Baseline Analyses

Baseline analyses included all beneficiaries who we were able to link to Medicaid or Medicare records in the baseline period. For Medicaid analyses, we excluded beneficiaries who were dually eligible for Medicaid and Medicare. The Medicaid analyses included 452,688 beneficiaries who were ineligible for navigation and 128,043 navigation-eligible beneficiaries. The Medicare FFS analyses included 247,065 beneficiaries who were ineligible for navigation and 38,166 navigation-eligible beneficiaries. Finally, the combined Medicare Advantage–Medicare FFS analyses included 355,466 beneficiaries who were ineligible for navigation and 51,833 navigation-eligible beneficiaries. Both the Medicare FFS and combined Medicare FFS and Medicare Advantage analyses included dually eligible beneficiaries.

To measure the association between needs and baseline expenditures, we estimated a linear regression model. For FFS Medicare and Medicaid, we used total PBPM expenditures as the dependent variable. For Medicaid, we also used inpatient admissions and ED visits as outcomes because most of the sample was enrolled in comprehensive managed care, and therefore, their expenditures are less sensitive to changes. The regression models included the following:

- Separate indicators for the number of years before AHC screening (i.e., 1 year, 2 years, or 3 years before AHC screening)
- Separate indicators for whether the beneficiary screened positive for housing, food, transportation, utility, and/or safety needs
- A set of interactions between the years-before-AHC-screening indicators and each need indicator
- The age and sex of each beneficiary

We used regression modeling to better isolate the association between each need and baseline expenditures, while holding constant the other need(s) for which a beneficiary may have screened positive. We estimated a separate model for beneficiaries who did and did not self-report two or more ED visits at screening. This implicitly controlled for whether the beneficiary had two or more ED visits at screening but also allowed the association between needs and baseline expenditures to vary across beneficiaries with two or more ED visits versus those with fewer than two ED visits.

We then used model coefficients to derive regression-adjusted baseline trends to compare beneficiaries with no needs to beneficiaries with each individual need. The results of these analyses are presented in **Chapter 2**.

Assistance Track Impact Analyses

For the analyses in **Chapter 3**, we included all navigation-eligible beneficiaries in the Assistance Track intervention or control groups who had non-missing outcome and covariate data. The Medicaid analyses included 35,819 unique beneficiaries in the intervention group and 15,080 in the control group. The Medicare FFS analyses included 10,739 unique beneficiaries in the intervention group and 4,442 in the control group, and the combined Medicare FFS–Medicare Advantage analyses included 15,535 unique beneficiaries in the intervention group and 6,364 in the control group. Both the Medicare FFS and combined Medicare FFS-Medicare Advantage analyses included beneficiaries dually eligible for Medicaid and Medicare.

We started by assessing whether empirical evidence suggested that randomization was successful. Specifically, we measured whether Assistance Track intervention and control group beneficiaries had similar health care measures before screening and similar sociodemographic characteristics. As shown in **Appendix C**, the Assistance Track intervention and control groups were similar in both the health care measures observed before screening and in all observed sociodemographic characteristics. On the basis of these findings, we chose not to conduct a difference-in-differences (D-in-D) impact analysis, which would be less precise and theoretically unnecessary given randomization and the statistical similarity in the intervention and control groups. Instead, we compared post-screening means in health care outcomes across the intervention and control groups to determine whether the AHC Model reduced health care expenditures or quality of care.

Comparing post-screening, unadjusted outcome means across the intervention and control groups provides an unbiased impact estimate under the assumption that the only difference between the two groups is that the intervention group received navigation services while the control group did not. However, even with randomization, controlling for sociodemographic characteristics may produce more-precise impact estimates (i.e., smaller standard errors and p-values) because covariate adjustment reduces the amount of unexplained variation in outcome measures.[25,26] Moreover, including regression controls makes the impact analysis more robust because it controls for even small differences in the intervention and control groups. Therefore, we calculated regression-adjusted differences in post-screening health care outcomes controlling for age and gender, the control variables that optimized the precision of the impact estimates. We explored including other covariates, including measures to capture baseline health status (e.g., HCC risk scores, chronic conditions), but found that the results were not substantially different with no perceptible difference in statistical precision. Except for unplanned readmissions, all regression models were weighted using each beneficiary's eligibility fraction as the weight variable.

The Assistance Track impact analyses also controlled for the COVID-19 public health emergency (PHE) in two ways. First, we included a set of cohort indicators in the regression analyses to adjust for the extent to which the COVID-19 PHE disrupted underlying trends in four key outcomes for Medicaid, FFS Medicare, and Medicare Advantage beneficiaries: total expenditures (for Medicaid and FFS Medicare only), ED visits, inpatient admissions, and PCP visits. We also developed the cohort indicators to adjust for disruptions in the underlying trends in key programmatic measures: number of screened beneficiaries, number of navigation-eligible beneficiaries, and number of beneficiaries with different types of core needs. Cohorts were defined as follows:

1. Beneficiaries who were screened and navigated before March 2020 (Cohort 1)
2. Beneficiaries who were screened before March 2020, but whose navigation services were delivered at least partially during or after March 2020 (Cohort 2)
3. Beneficiaries who were screened and navigated during or after March 2020 (Cohort 3)

[25] Hernandez, A.V., Steyerberg, E.W., and Habbema, J.D.F.: Covariate adjustment in randomized controlled trials with dichotomous outcomes increases statistical power and reduces sample size requirements. J. Clin. Epidemiol. 57(5):454–460, 2004.

[26] Pocock, S.J., Clayton, T.C., and Stone, G.W.: Design of major randomized trials: Part 3 of a 4-part series on statistics for clinical trials. J. Am. Coll. Cardiol. 66(24):2757–66, 2015.

These cohort definitions were developed after reviewing trends in claims and screening and navigation data.

Second, we included an additional control variable to capture variation over time and across regions in COVID-19 risks. Specifically, we included a COVID-19 Pandemic Vulnerability Index (PVI) measure that was derived from a model developed by scientists at the National Institute of Environmental Health Sciences, North Carolina State University, and Texas A&M University.[27] Their model produces a daily index score for each county based on 12 factors: (1) transmissible cases, (2) disease spread, (3) population mobility, (4) residential density, (5) social distancing measures, (6) testing, (7) population demographics, (8) air pollution, (9) age distribution, (10) prevalence of co-morbidities, (11) health disparities, and (12) number of hospital beds. We aggregated daily scores to a quarterly score by calculating the average daily score for each measurement quarter. Measurement quarters before the PHE received scores of 0.

We also adopted appropriate regression functional forms for each outcome. Specifically, we used an ordinary least squares model for expenditure outcomes, a logistic regression model for the readmissions outcomes, and a Poisson model for all remaining outcomes. We tested a generalized linear model specification with a gamma error and log link for expenditure outcomes, but in some analyses found that this specification provided a poor fit, as evidenced by inaccurate mean predictions.

Because we do not know how much exposure to navigation services is necessary to produce changes in health care outcomes, we modeled most outcomes at a quarterly level, where the first quarter included the 3 months after each beneficiary was screened, the second quarter included the next 3 months, and so on. We summed these quarterly outcomes into an annual measure, which allowed us to investigate whether outcome differences are more pronounced in later years relative to earlier years and whether outcome differences start to appear after an *a priori* unknown amount of time exposed to the AHC Model intervention. We discussed differences across years in greater detail in the Third Evaluation Report.

Last, to measure the overall impact over the first 4 years after each beneficiary was screened, we produced an overall impact estimate for each outcome. To calculate this overall impact estimate, we calculated the weighted average of the quarter-specific impact estimates for each outcome, using the precision of each quarter-specific impact (i.e., inverse of the standard error of the quarter-specific impact estimates) as weights. This technique is commonly used for pooling effect estimates in meta-analysis.[28]

Alignment Track Impact Analyses

The Alignment Track analyses in **Chapter 3** included all navigation-eligible beneficiaries in the Alignment Track and the Assistance Track control group who had non-missing outcome and control variable data. The Medicaid analyses included 68,184 unique beneficiaries in the intervention group and 14,870 in the control group during the baseline period. In the period after screening, Medicaid analyses included 68,566 intervention group beneficiaries and 14,809 control group beneficiaries. The Medicare FFS analyses included 20,280 unique beneficiaries in the intervention group and 5,078 in the control group during the baseline period, with 18,712 and 4,442 beneficiaries in the post period, respectively. The combined Medicare FFS–Medicare Advantage analyses included 20,064 unique beneficiaries in the intervention group and 5,439 in the control group during the baseline period, with 22,315 beneficiaries in the intervention group and 6,236 in the control group during the post period. Both the Medicare FFS and combined Medicare FFS–Medicare Advantage analyses included beneficiaries dually eligible for Medicaid and Medicare.

The main difference in the impact analyses for the Alignment Track is the modeling approach used. Because the Alignment Track did not randomize beneficiaries to an intervention or control group, we reused the Assistance

[27] See COVID-19 Pandemic Vulnerability Index.
[28] Borenstein, M., Hedges, L. V., Higgins, J. P. T., et al.: Introduction to Meta-Analysis. Chichester, United Kingdom. Wiley, 2009.

Track control group as a comparison group. To ensure this comparison group was valid and reliable, we used propensity score weighting to weight the Assistance Track control group to more closely resemble the Alignment Track beneficiaries in terms of sociodemographic and community-level characteristics. More detail on the propensity score analysis results is in **Appendix C**.

In addition, we used a D-in-D specification for the Alignment Track impact analyses. As with the Assistance Track, we modeled some outcomes quarterly and others yearly. Quarterly outcomes had 16 post-screening quarters. Analyses of quarterly outcomes for all payers used 12 baseline quarters, which provided ample baseline data to test for parallel baseline trends. Parallel baseline trend testing results are also available in **Appendix C**.

The basic D-in-D specification we used is as follows:

$$Y_{ijt} = \alpha_0 + \beta_1 I_i + \theta P_{it} + \Sigma_t \alpha_{2,t} Q_t + \Sigma_k \gamma_k (I_i * Q_k * P_{it}) + \lambda X_{ij} + \delta C_i + \pi PVI_{ijt} + \varepsilon_{ijt}, \quad \text{(B.1)}$$

where I_i (= 0, 1) denotes an intervention group indicator, P_{it} (= 0, 1) denotes an indicator that equals 1 if the beneficiary-year observation is a post-screening observation, Q_t (= 0, 1) denotes a set of period-specific indicators that equal 1 in each time period during the baseline and implementation periods, and X_{ij} denotes a set of regression controls at the beneficiary level (indexed by i) and area level (indexed by j). C_i denotes a set of cohort fixed effects for each beneficiary (indexed by i), and PVI_{ijt} denotes a control for pandemic vulnerability for each beneficiary in county j at time t.

For the few outcomes where we did not find evidence to support parallel baseline trends (inpatient admissions and PCP visits for Medicaid beneficiaries), we conducted a sensitivity analysis where we included a linear time trend and interacted it with the intervention group indicator, using the following extension to the basic D-in-D specification:

$$Y_{ijt} = \alpha_0 + \beta_1 I_i + \beta_2 TRND_t + \beta_3 (I_i * TRND_t) + \theta P_{it} + \Sigma_k \{\alpha_{2,k} Q_k + \gamma_k (I_i * Q_k * P_{it})\} + \lambda X_{ij} + dC_i + pPVI_{ijt} + \varepsilon_{ijt}, \quad \text{(B.2)}$$

where $TRND_t$ denotes a linear time trend (all other notation is equivalent to equation D.1). With this modification to the D-in-D specification, the impact estimates (γ_k) for these analyses are interpreted as the relative change in the outcome across the intervention and comparison groups above and beyond any differences in trends observed during the baseline.

We included different covariates by payer depending on variable availability and policy significance (e.g., managed care enrollment for Medicaid or dual-eligibility status for FFS Medicare).[29]

In the Medicaid analysis, all models controlled for the following:

- Beneficiary demographics (e.g., age, gender)
- Chronic Illness and Disability Payment System risk score
- Charlson Comorbidity Index
- Medicaid eligibility because of disability
- An indicator for having more than one need
- Managed care enrollment
- An indicator for rural residence
- PVI

[29] We provide a partial list of covariates in this report. The full list of covariates used is available in the Third Evaluation Report.

- Pandemic cohort fixed effects

In the FFS Medicare and combined FFS Medicare and Medicare Advantage analyses, all models controlled for the following:

- Beneficiary demographics (e.g., age, gender)
- Indicators for pulmonary disease, diabetes, substance use disorder, and major depression at the baseline
- Original Medicare entitlement because of disability
- An indicator for having more than one need
- Dual-eligibility status
- An indicator for rural residence
- PVI
- Pandemic cohort fixed effects

Except for models for readmissions, all models used a combination of the propensity score weight and the beneficiary's eligibility fraction as an analytic weight. The models for unplanned readmissions (Medicaid and FFS Medicare) and all-cause readmissions (combined FFS Medicare and Medicare Advantage) only used the propensity score weight as an analytic weight.

We used the same functional forms as in the Assistance Track impact analyses, the same data periods, and the same approach to aggregate quarter-specific impact estimates up to yearly impact estimates and an overall cumulative impact estimate.

Subpopulation Analyses

Subpopulation analyses were performed to test whether AHC Model impacts differed for several subpopulations presented in Chapter 3 to 5. These analyses used the same population as the Assistance Track and Alignment Track models discussed above. These analyses relied on interacted models to measure impacts separately for beneficiaries in a particular subpopulation versus beneficiaries not in a particular subpopulation. For example, impacts were measured separately for beneficiaries dually eligible for FFS Medicare and Medicaid versus non-dually eligible beneficiaries. The subpopulations included in this report were the following:

- Dually eligible for Medicare and Medicaid beneficiaries versus non-dually eligible beneficiaries (FFS Medicare only)
- Beneficiaries with a reported transportation need at screening versus beneficiaries without a reported transportation need (FFS Medicare only)
- Beneficiaries with more than one need versus beneficiaries with one need (Medicaid only)
- Beneficiaries concurrently assigned to alternative payment models (APMs) implemented by CMS (FFS Medicare only)

The Assistance Track subpopulation analyses modified the general impact analysis approach described above by testing for differences in regression-adjusted means between the intervention and control groups separately by subpopulation. To test whether the impacts differed for subpopulations, we tested whether the difference in means within each subpopulation was statistically significantly different. The subpopulation analyses controlled for the same covariates listed above for each payer.

For the Alignment Track subpopulation analyses, we used a triple difference model with the subpopulation indicator interacted with indicators for each post-screening quarter and the indicator for Alignment Track. The subpopulation analyses controlled for the same covariates listed above for each payer except for removing the indicator for more than one need for the Medicaid subpopulation analysis. We then abstracted marginal effects from the regression model to measure the D-in-D estimate within each subgroup, as well as the difference in the D-in-D estimates.

Bayesian Analyses

Because the Alignment Track impact analyses were likely to be significantly underpowered, and the Assistance Track impact analyses also were at risk of having low statistical power, we conducted Bayesian analyses to provide additional estimates with more precision than our frequentist analyses. Bayesian methods offer at least two distinct advantages in this context.

First, Bayesian methods can be used to quantify the strength of evidence. This adds nuance to the frequentist methods described above. With Bayesian methods, the strength of the evidence can be quantified in intuitive, probabilistic terms, allowing us to go beyond describing evidence with small, but not small enough, p-values as being directionally aligned with the hypothesized impact but marginally insignificant. In contrast, with frequentist methods, evidence is either sufficient to reject the null hypothesis or not.

Second, Bayesian methods can leverage priors to increase precision.[30] This is because many common prior distributions have a shrinking effect on the point estimates. As point estimates are shrunk toward zero, there is a corresponding and similar effect on the endpoints of uncertainty intervals, leading to narrower credible intervals. This means that there can be cases where frequentist evidence is "marginally insignificant" (e.g., p = 0.101), but Bayesian evidence shows strong evidence in favor of an impact.

Bayesian Hypothesis Testing and Interpretation

In general, formal hypothesis testing requires the specifying of null and alternative hypotheses. The null hypothesis is typically framed as a null impact or an impact in an unintended direction, and the alternative is typically framed as a non-null impact or an impact in an intended direction.

In a frequentist approach, data are analyzed to determine whether the null hypothesis can be rejected. This approach to hypothesis testing is conceptually problematic, and the problem is exacerbated when statistical power is low. Specifically, the frequentist approach fails to provide any useful information in cases where p-values are close to a threshold level of significance but on the "wrong side" of significance (e.g., p = 0.101). This is because failing to reject the null hypothesis is not equivalent to proving the null, so the results are inconclusive.

Bayesian approaches can overcome this issue. A Bayesian approach to hypothesis testing quantifies the probabilities of both the null and alternative hypotheses, which allows a more nuanced description of the degree to which the data support the alternative hypothesis (i.e., the posterior probability of the alternative hypothesis). This means that Bayesian approaches can better capture the extent to which the evidence supports the hypothesis in cases of "near significance." Moreover, in some cases, Bayesian approaches may allow a conclusion that the null hypothesis is nearly certain. This means that Bayesian evidence can be more concrete in its conclusions than a frequentist approach.

[30] Bayesian priors provide a statistical model for how likely parameter values are *before seeing any data*. Priors are chosen by the analyst and can be based on past studies or other similar information. However, weakly informative priors are often chosen. Weakly informative priors are ambiguous as to the likelihood of the direction of an impact but place less likelihood on impacts that are extremely large (in absolute value). For example, a normal distribution centered on zero assumes a 50-50 probability of a decrease versus an increase, but extremely large parameter values—either positive or negative—are less likely than parameter values closer to zero.

Bayes factors (BFs) are commonly used in Bayesian hypothesis testing to quantify the strength of evidence in favor of an alternative hypothesis. Mathematically, the BF is a ratio of two odds: the posterior odds in favor of the alternative hypothesis relative to the prior odds in favor of the alternative hypothesis. Posterior odds represent the likelihood of the alternative hypothesis *after* seeing the data, whereas prior odds represent the likelihood of the alternative hypothesis *before* seeing the data. Accordingly, BFs can be used to effectively answer the question: How much do the data increase my confidence in the alternative hypothesis? Because BFs are a ratio of the posterior odds relative to the prior odds, they are not well-defined under flat priors. Flat priors are improper statistical distributions, and as such are not well-equipped to be used to measure the probability of a hypothesis.

Like p-values, there are conventional thresholds that many Bayesian analysts adhere to in interpreting the strength of evidence as measured by BFs. Kass and Raftery (1995) published a commonly cited convention: BFs from 1 to 3.2 suggest there is no evidence, BFs from 3.2 to 10 suggest the evidence is substantial but not strong, BFs from 10 to 100 suggest that the evidence is strong, and BFs greater than 100 suggest that the evidence is decisive.[31, 32] In the context of a one-sided hypothesis (e.g., a hypothesis that total Medicare expenditures were reduced), these thresholds roughly correspond with the following posterior probabilities: (1) a BF of 3.2 roughly corresponds with a posterior probability of 75%, (2) a BF of 10 roughly corresponds with a posterior probability of 90%, and (3) a BF of 100 roughly corresponds with a posterior probability of 99%.

Overview of RTI's Bayesian Approach

Although many frequentist methods have Bayesian analogues (e.g., Bayesian linear regression), this is not universally true. For the AHC evaluation, two components do not have a perfect analogue. First, there is not a perfect analogue to a weighted least squares or weighted maximum likelihood estimator. Second, there is not a perfect analogue to the concept of a cluster-robust standard error. Because we wanted to conduct an analysis that was complementary to the frequentist analyses, we needed to account for each of these components in the Bayesian approach. This ensured that any differences in the findings can be reasonably attributed to the use of Bayesian priors.

To accomplish this, RTI chose to use a two-step analysis, as in Saarela et al., 2015.[33] In the first step, we used bootstrapping to simulate from the Bayesian posterior under flat priors.[34] Essentially, we repeatedly estimated the frequentist model specified above. At each iteration, we estimated a weighted least squares or weighted maximum likelihood model on a bootstrap sample, which allowed for the application of the propensity score weights. Repeating this algorithm many times (e.g., 1,000 times) produces a good approximation of the Bayesian posterior under flat priors.[35]

In the second step, we used a Markov Chain Monte Carlo algorithm to update the posterior from the first step under non-flat, non-degenerate priors. Priors were chosen to be weakly informative, meaning that they are non-

[31] Kass, R.E., and Raftery, A.E.: Bayes Factors. Journal of the American Statistical Association. 90(430):791. https://doi.org/10.2307%2F2291091

[32] BFs less than one indicate evidence in favor of the null hypothesis. In this case, BFs can be trivially converted from quantifying the evidence in favor of the alternative hypothesis to quantifying the evidence in favor of the null hypothesis. After making this conversion, the same thresholds could be applied to qualify the strength of evidence in favor of the null hypothesis.

[33] Saarela, O., Stephens, D.A., Moodie, E.E., and Klein, M.B.: On Bayesian estimation of marginal structural models. Biometrics. 71(2):279–288, 2015. https://doi.org/10.1111/biom.12269

[34] Bayesian posteriors are a statistical distribution over the parameter values. A key difference between frequentist and Bayesian methods is how data and parameters are conceived. Frequentist methods treat data as random and parameters as fixed quantities. Accordingly, these methods focus on estimating parameter values and measuring uncertainty based on the randomness from the data. In contrast, Bayesian methods treat data as fixed and parameters as random and, accordingly, focus on deriving a statistical distribution over the parameter values (i.e., the posterior).

[35] We refer to this as being an approximation because that is technically correct. However, it is worth noting that almost all modern Bayesian methods produce approximations of the posterior because most modeling scenarios do not allow for a closed form solution to Bayes' theorem.

flat (i.e., informative), but are still ambiguous as to the direction of impact (i.e., weak). Specifically, we assumed a normal prior centered on zero with a standard deviation of 100. For an expenditure analysis, this prior puts a significant amount of likelihood in an impact that is between a $100 cost decrease and a $100 cost increase with the highest amount of likelihood on a null impact.

Exhibits A-3 through **A-6** show that results for Medicaid and FFS Medicare in both the Assistance and Alignment Tracks are almost identical between the current frequentist approach and the proposed Bayesian approach when flat priors are used. Under flat priors, Bayesian posterior summary statistics (e.g., means and uncertainty intervals) should be nearly identical to frequentist estimates. Therefore, the fact that the first step of our two-step approach produces such similar results demonstrates that the two-step Bayesian approach was effective at capturing the eligibility fraction weighting component of the frequentist approach.

Exhibit A-3. Frequentist and Bayesian Regression-Adjusted Differences in Post-Screening Means Between Intervention and Control Group Medicaid Beneficiaries in the Assistance Track

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	Diff.	90% Conf. Interval	Diff.	90% Cred. Interval	Diff.	90% Cred. Interval	Bayes Factor
Total Medicaid expenditures PBPM							
1 to 12 months after screening	−$43	[−$86, −$0.3]	−$41	[−$94, $7]	−$38	[−$88, $8]	9.5
13 to 24 months after screening	−$30	[−$70, $9]	−$28	[−$85, $22]	−$25	[−$78, $23]	4.0
24 to 36 months after screening	−$58	[−$109, −$6]	−$57	[−$118, $7]	−$52	[−$109, $6]	13.8
37 to 48 months after screening	−$54	[−$110, $2]	−$53	[−$124, $17]	−$44	[−$110, $19]	6.5
Overall	−$45	[−$77, −$13]	−$45	[−$74, −$17]	−$38	[−$65, −$11]	> 100
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	−5	[−9, −1]	−5	[−10, −0.1]	−5	[−10, −0.1]	16.6
13 to 24 months after screening	−1	[−3, 2]	−0.3	[−4, 3]	−0.3	[−4, 3]	1.3
24 to 36 months after screening	−0.4	[−3, 2]	−0.4	[−4, 3]	−0.4	[−4, 3]	1.4
37 to 48 months after screening	−7	[−12, −1]	−6	[−13, −0]	−6	[−13, 0]	16.9
Overall	−3	[−5, −0.5]	−3	[−5, −1]	−3	[−5, −1]	10.4
ACSC admissions per 1,000 beneficiaries							
1 to 12 months after screening	0.5	[−0.5, 1]	0.5	[−1, 2]	0.5	[−1, 2]	0.3
13 to 24 months after screening	1	[0.1, 2]	1	[−0.3, 3]	1	[−0.3, 3]	0.1
24 to 36 months after screening	0.4	[−1, 1]	0.4	[−1, 2]	0.4	[−0.7, 2]	0.4
37 to 48 months after screening	−1	[−2, 0.4]	−1	[−3, 1]	−1	[−3, 1]	4
Overall	0.5	[−0.1, 1]	0.4	[−0.3, 1]	0.4	[−0.3, 1]	0.2
Unplanned readmissions per 1,000 discharges							
1 to 12 months after screening	−15	[−33, 2]	−14	[−36, 5]	−14	[−36, 5]	6.8
13 to 24 months after screening	−5	[−23, 12]	−4	[−29, 19]	−4	[−28, 18]	1.5
24 to 36 months after screening	−14	[−35, 8]	−14	[−39, 13]	−14	[−39, 12]	4.5

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	Diff.	90% Conf. Interval	Diff.	90% Cred. Interval	Diff.	90% Cred. Interval	Bayes Factor
37 to 48 months after screening	−56	[−97, −15]	−55	[−108, −5]	−50	[−100, −2]	19.9
Overall	−18	[−32, −4]	−22	[−39, −6]	−20	[−37, −5]	22.3
ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−14	[−25, −2]	−13	[−27, −1]	−13	[−26, −0.4]	18.6
13 to 24 months after screening	−2	[−9, 5]	−1	[−11, 8]	−1	[−11, 8]	1.3
24 to 36 months after screening	8	[−1, 17]	8	[−3, 19]	8	[−3, 18]	0.1
37 to 48 months after screening	6	[−4, 16]	6	[−7, 18]	6	[−7, 18]	0.3
Overall	−1	[−5, 3]	−0.1	[−6, 5]	−0.1	[−6, 5]	0.8
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−7	[−13, −0.4]	−7	[−15, 1]	−7	[−15, 1]	11.6
13 to 24 months after screening	−1	[−6, 3]	−1	[−7, 5]	−1	[−7, 5]	1.4
24 to 36 months after screening	3	[−2, 8]	3	[−3, 9]	3	[−3, 9]	0.3
37 to 48 months after screening	1	[−5, 7]	2	[−6, 9]	2	[−6, 9]	0.6
Overall	−1	[−4, 1]	−.7	[−4, 3]	−.7	[−4, 2]	1.3
PCP visits per 1,000 beneficiaries							
1 to 12 months after screening	7	[−4, 17]	7	[−6, 19]	7	[−6, 19]	0.2
13 to 24 months after screening	3	[−7, 13]	4	[−11, 17]	4	[−11, 17]	0.4
24 to 36 months after screening	7	[−5, 20]	8	[−7, 23]	7	[−7, 22]	0.3
37 to 48 months after screening	−12	[−28, 4]	−12	[−32, 8]	−12	[−32, 8]	4.7
Overall	3	[−3, 9]	2	[−6, 9]	2	[−6, 9]	0.2
Specialist visits per 1,000 beneficiaries							
1 to 12 months after screening	−13	[−25, −1]	−13	[−28, 1]	−13	[−28, 1]	13.7
13 to 24 months after screening	−2	[−11, 6]	−2	[−14, 9]	−2	[−15, 9]	1.5
24 to 36 months after screening	−0.2	[−10, 9]	−0.2	[−11, 11]	−0.2	[−11, 11]	1.0
37 to 48 months after screening	−10	[−24, 3]	−10	[−27, 6]	−10	[−27, 6]	5.5
Overall	−7	[−13, −0.3]	−6	[−13, 0.1]	−6	[−13, 0.1]	8.1

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2024.

Definitions: ACSC = ambulatory care sensitive condition; Diff. = Difference; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; Conf. Interval = Confidence Interval; Cred. Interval = Credible Interval.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses.

Exhibit A-4. Frequentist and Bayesian Regression−Adjusted Differences in Post-Screening Means Between Intervention and Control Group FFS Medicare Beneficiaries in the Assistance Track

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	Diff.	90% Conf. Interval	Diff.	90% Cred. Interval	Diff.	90% Cred. Interval	Bayes Factor
Total Medicare expenditures PBPM							
1 to 12 months after screening	−$119	[−$250, $12]	−$114	[−$275, $33]	−$63	[−$177, $54]	4.5
13 to 24 months after screening	−$6	[−$124, $111]	$3	[−$166, $155]	−$4	[−$113, $103]	1.1
24 to 36 months after screening	−$259	[−$470, −$47]	−$258	[−$507, $5]	−$89	[−$224, $54]	6.0
37 to 48 months after screening	−$85	[−$267, $97]	−$83	[−$313, $140]	−$24	[−$164, $110]	1.6
Overall	−$111	[−$205, −$17]	−$113	[−$213, −$20]	−$41	[−$102, $20]	6.5
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	−1	[−11, 8]	−1	[−13, 10]	−1	[−13, 10]	1.3
13 to 24 months after screening	−5	[−15, 6]	−4	[−19, 9]	−4	[−19, 9]	2.1
24 to 36 months after screening	−9	[−22, 3]	−9	[−24, 7]	−9	[−24, 6]	5.3
37 to 48 months after screening	−3	[−17, 11]	−3	[−20, 14]	−3	[−20, 14]	1.5
Overall	−4	[−11, 2]	−4	[−11, 2]	−4	[−11, 2]	4.3
ACSC admissions per 1,000 beneficiaries							
1 to 12 months after screening	−1	[−6, 3]	−1	[−7, 4]	−1	[−7, 4]	1.8
13 to 24 months after screening	−4	[−9, 2]	−3	[−11, 4]	−3	[−11, 3]	3.5
24 to 36 months after screening	−5	[−11, 1]	−5	[−12, 3]	−5	[−12, 3]	5.7
37 to 48 months after screening	−11	[−20, −1]	−11	[−23, 1]	−11	[−23, 1]	12.7
Overall	−4	[−8, −1]	−5	[−9, −1]	−5	[−9, −1]	15.7
Unplanned readmissions per 1,000 discharges							
1 to 12 months after screening	−10	[−28, 8]	−9	[−32, 12]	−9	[−32, 11]	3.1
13 to 24 months after screening	−28	[−56, −0.4]	−26	[−67, 10]	−24	[−62, 10]	6.9
24 to 36 months after screening	−11	[−37, 15]	−11	[−42, 21]	−11	[−41, 20]	2.6
37 to 48 months after screening	−42	[−83, −0]	−41	[−93, 9]	−37	[−86, 11]	8.1
Overall	−19	[−35, −3]	−22	[−41, −5]	−20	[−38, −4]	18.8
ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−31	[−54, −8]	−30	[−59, −4]	−29	[−57, −4]	25.6
13 to 24 months after screening	−8	[−24, 7]	−7	[−30, 13]	−7	[−29, 13]	2.4

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	Diff.	90% Conf. Interval	Diff.	90% Cred. Interval	Diff.	90% Cred. Interval	Bayes Factor
24 to 36 months after screening	−49	[−82, −16]	−49	[−88, −8]	−47	[−84, −7]	43.8
37 to 48 months after screening	16	[−7, 38]	16	[−13, 44]	16	[−13, 44]	0.2
Overall	−21	[−35, −6]	−17	[−32, −4]	−17	[−31, −4]	14.1
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−15	[−28, −1]	−14	[−31, 1]	−14	[−31, 1]	12.9
13 to 24 months after screening	−8	[−19, 3]	−7	[−22, 7]	−7	[−23, 7.3]	3.4
24 to 36 months after screening	−28	[−49, −8]	−28	[−52, −4]	−28	[−52, −3]	35.1
37 to 48 months after screening	−4	[−17, 9]	−4	[−21, 13]	−4	[−21, 13]	1.8
Overall	−14	[−24, −4]	−13	[−22, −5]	−13	[−22, −5]	51.9
PCP visits per 1,000 beneficiaries							
1 to 12 months after screening	−28	[−60, 5]	−26	[−67, 10]	−26	[−67, 10]	0.4
13 to 24 months after screening	−75	[−128, −22]	−71	[−147, −3]	−63	[−124, −4]	1.6
24 to 36 months after screening	−102	[−170, −33]	−102	[−182, −16]	−87	[−156, −18]	3.6
37 to 48 months after screening	−188	[−299, −78]	−187	[−327, −51]	−110	[−213, −1]	2.8
Overall	−77	[−121, −34]	−96	[−143, −54]	−71	[−105, −40]	> 100
Specialist visits per 1,000 beneficiaries							
1 to 12 months after screening	−71	[−118, −24]	−69	[−128, −16]	−62	[−117, −13]	2.2
13 to 24 months after screening	−57	[−100, −13]	−53	[−116, 2]	−47	[−103, 5]	0.9
24 to 36 months after screening	−9	[−41, 22]	−9	[−46, 30]	−10	[−46, 26]	0.2
37 to 48 months after screening	−53	[−105, −2]	−52	[−118, 10]	−45	[−106, 13]	0.8
Overall	−51	[−82, −19]	−46	[−73, −20]	−41	[−66, −18]	> 100

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare Claim Files, May 2015–December 2024.
Definitions: ACSC = ambulatory care sensitive condition; Diff. = Difference; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; Conf. Interval = Confidence Interval; Cred. Interval = Credible Interval.

Exhibit A-5. Frequentist and Bayesian Regression-Adjusted Differences in Post-Screening Means for Alignment Track Navigation-Eligible Medicaid Beneficiaries and Assistance Track Control Group Medicaid Beneficiaries

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	D-in-D	90% Conf. Interval	D-in-D	90% Cred. Interval	D-in-D	90% Cred. Interval	Bayes Factor
Total Medicaid expenditures PBPM							
1 to 12 months after screening	−$62	[−$155, $31]	−$58	[−$175, $47]	−$63	[−$127, $10]	14.6
13 to 24 months after screening	−$105	[−$240, $30]	−$95	[−$289, $78]	−$110	[−$210, −$2]	22.9
24 to 36 months after screening	−$128	[−$292, $36]	−$128	[−$322, $74]	−$135	[−$261, −$4]	22.4
37 to 48 months after screening	−$115	[−$301, $72]	−$112	[−$348, $121]	−$120	[−$265, $31]	9.7
Overall	−$90	[−$170, −$9]	−$98	[−$194, −$13.4]	−$90	[−$140, −$41]	> 100
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	−2	[−10, 5]	−2	[−11, 6]	3	[−4, 11]	0.3
13 to 24 months after screening	−3	[−9, 4]	−2	[−11, 6]	4	[−3, 13]	0.2
24 to 36 months after screening	−5	[−12, 2]	−5	[−13, 4]	1	[−7, 10]	0.7
37 to 48 months after screening	−21	[−36, −6]	−21	[−40, −3]	−15	[−23, −7]	> 100
Overall	−6	[−11, −1]	−8	[−14, −2]	−2	[−8, 5]	3.0
ACSC admissions per 1,000 beneficiaries							
1 to 12 months after screening	−1	[−3, 1]	−1	[−3, 1]	−2	[−8, 5]	0.7
13 to 24 months after screening	1	[−.5, 2]	1	[−1, 3]	−2	[−8, 5]	<.01
24 to 36 months after screening	−0.2	[−2, 1]	−0.2	[−2, 2]	−2	[−8, 5]	0.1
37 to 48 months after screening	−4	[−7, −0.1]	−4	[−8, 1]	−2	[−8, 5]	52.8
Overall	−.2	[−1, 1]	−1	[−2, 1]	0.4	[−1, 2]	0.1
Unplanned readmissions per 1,000 discharges							
1 to 12 months after screening	−4	[−24, 15]	−4	[−28, 19]	3	[−4, 11]	1.6
13 to 24 months after screening	13	[−6, 32]	14	[−12, 38]	4	[−3, 13]	0.1
24 to 36 months after screening	6	[−19, 31]	6	[−24, 37]	1	[−7, 10]	0.5
37 to 48 months after screening	−57	[−102, −11]	−56	[−113, 0]	−15	[−23, −7]	> 100
Overall	−2	[−13, 8]	−10	[−28, 7]	−10	[−25, 5]	1.4
ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−27	[−59, 5]	−25	[−65, 11]	−2	[−8, 5]	7.7
13 to 24 months after screening	−28	[−63, 7]	−25	[−76, 20]	−2	[−8, 5]	9.1
24 to 36 months after screening	−12	[−43, 20]	−12	[−49, 27]	−2	[−8, 5]	3.5

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	D-in-D	90% Conf. Interval	D-in-D	90% Cred. Interval	D-in-D	90% Cred. Interval	Bayes Factor
37 to 48 months after screening	−18	[−59, 22]	−17	[−68, 32]	−2	[−8, 5]	3.4
Overall	−22	[−43, −1]	−20	[−42, 0]	−22	[−52, 8]	44.2
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−13	[−26, 1]	−12	[−29, 3]	3	[−4, 11]	13.6
13 to 24 months after screening	−11	[−24, 1]	−11	[−28, 5]	4	[−3, 13]	5.5
24 to 36 months after screening	−2	[−13, 9]	−2	[−14, 12]	1	[−7, 10]	0.6
37 to 48 months after screening	−8	[−24, 7]	−8	[−28, 11]	−15	[−23, −7]	1.8
Overall	−9	[−17, −1]	−8	[−16, −1]	−5	[−14, 6]	8.7
PCP visits per 1,000 beneficiaries							
1 to 12 months after screening	−9	[−73, 55]	−6	[−86, 67]	−2	[−8, 5]	0.4
13 to 24 months after screening	−112	[−219, −5]	−104	[−259, 33]	−2	[−8, 5]	41.2
24 to 36 months after screening	−93	[−208, 23]	−92	[−229, 52]	−2	[−8, 5]	7.4
37 to 48 months after screening	−118	[−274, 37]	−116	[−315, 77]	−2	[−8, 5]	8.4
Overall	−65	[−124, −6]	−79	[−154, −13]	−58	[−129, 17]	14.2
Specialist visits per 1,000 beneficiaries							
1 to 12 months after screening	−65	[−133, 2]	−62	[−146, 13]	3	[−4, 11]	36.9
13 to 24 months after screening	−72	[−150, 6]	−66	[−181, 34]	4	[−3, 13]	8.5
24 to 36 months after screening	−10	[−84, 64]	−9	[−97, 82]	1	[−7, 10]	0.6
37 to 48 months after screening	71	[−34, 177]	73	[−62, 203]	−15	[−23, −7]	0.1
Overall	−40	[−81, 2]	−16	[−69, 32]	−2	[−71, 67]	8.6

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2024.

Definitions: ACSC = ambulatory care sensitive condition; D-in-D = difference-in-differences; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; Conf. Interval = Confidence Interval; Cred. Interval = Credible Interval.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses.

Exhibit A-6. Frequentist and Bayesian Regression-Adjusted Differences in Post-Screening Means for Alignment Track Navigation-Eligible Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	D-in-D	90% Conf. Interval	D-in-D	90% Cred. Interval	D-in-D	90% Cred. Interval	Bayes Factor
Total Medicare expenditures PBPM							
1 to 12 months after screening	−$140	[−$387, $107]	−$129	[−$434, $146]	−$42	[−$162, $78]	2.6
13 to 24 months after screening	−$11	[−$187, $165]	$3	[−$252, $228]	$45	[−$60, $152]	0.3
24 to 36 months after screening	−$254	[−$575, $67]	−$254	[−$631, $145]	−$90	[−$213, $35]	7.6
37 to 48 months after screening	−$38	[−$264, $187]	−$36	[−$325, $240]	$18	[−$95, $129]	0.6
Overall	−$86	[−$209, $38]	−$104	[−$250, $33]	−$11	[−$68, $46]	1.7
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	1	[−15, 17]	2	[−18, 20]	−1	[−14, 14]	1.2
13 to 24 months after screening	−4	[−19, 11]	−2	[−24, 17]	−6	[−20, 8]	3.2
24 to 36 months after screening	−6	[−26, 15]	−6	[−30, 19]	−8	[−29, 12]	2.7
37 to 48 months after screening	−16	[−36, 5]	−15	[−42, 11]	−18	[−34, −2]	28.9
Overall	−5	[−14, 4]	−5	[−16, 5]	−8	[−21, 4]	16.9
ACSC admissions per 1,000 beneficiaries							
1 to 12 months after screening	2	[−4, 7]	2	[−5, 8]	1	[−3, 5]	0.4
13 to 24 months after screening	−2	[−8, 4]	−2	[−11, 6]	−2	[−7, 2]	4.3
24 to 36 months after screening	3	[−5, 11]	3	[−7, 13]	2	[−4, 9]	0.4
37 to 48 months after screening	−7	[−18, 3]	−7	[−20, 6]	−8	[−15, −0.1]	22.7
Overall	−0.4	[−4, 3]	−1	[−6, 3]	−2	[−6, 3]	2.4
Unplanned readmissions per 1,000 discharges							
1 to 12 months after screening	4	[−16, 23]	4	[−20, 26]	−1	[−13, 12]	1.1
13 to 24 months after screening	−15	[−39, 8]	−14	[−47, 16]	−15	[−26, −4]	79.5
24 to 36 months after screening	−16	[−43, 11]	−16	[−48, 19]	−17	[−31, −3]	42.6
37 to 48 months after screening	−6	[−39, 26]	−6	[−46, 34]	−4	[−26, 17]	1.6
Overall	−8	[−20, 5]	−8	[−24, 7]	−9	[−18, 0.1]	> 100
ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−18	[−57, 21]	−16	[−65, 27]	−10	[−44, 20]	2.3
13 to 24 months after screening	−16	[−55, 24]	−13	[−70, 37]	−21	[−54, 12]	5.5
24 to 36 months after screening	−46	[−114, 22]	−46	[−126, 39]	−50	[−101, −1]	19.1
37 to 48 months after screening	28	[−29, 85]	29	[−43, 99]	4	[−42, 52]	0.8
Overall	−13	[−37, 11]	−12	[−43, 18]	−19	[−50, 11]	12.8
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	−16	[−37, 4]	−16	[−41, 7]	−14	[−28, −1]	26.6
13 to 24 months after screening	−12	[−32, 8]	−10	[−39, 15]	−15	[−31, .3]	18.0
24 to 36 months after screening	−19	[−47, 10]	−19	[−52, 16]	−24	[−41, −6]	74.2
37 to 48 months after screening	4	[−25, 34]	5	[−32, 41]	−5	[−29, 19]	1.8
Overall	−13	[−26, 1]	−10	[−25, 4]	−15	[−27, −2]	> 100

Outcome	Frequentist Results		Bayesian Results, Flat Priors		Bayesian Results, Weakly Informative Priors		
	D-in-D	90% Conf. Interval	D-in-D	90% Cred. Interval	D-in-D	90% Cred. Interval	Bayes Factor
PCP visits per 1,000 beneficiaries							
1 to 12 months after screening	−40	[−123, 43]	−37	[−139, 56]	−48	[−121, 30]	5.6
13 to 24 months after screening	−65	[−167, 38]	−56	[−204, 74]	−76	[−153, 8]	14.7
24 to 36 months after screening	−45	[−151, 60]	−45	[−169, 86]	−63	[−149, 27]	6.7
37 to 48 months after screening	−173	[−331, −15]	−170	[−369, 25]	−182	[−292, −69]	> 100
Overall	−70	[−135, −5]	−77	[−150, −10]	−92	[−161, −19]	> 100
Specialist visits per 1,000 beneficiaries							
1 to 12 months after screening	−18	[−67, 30]	−16	[−77, 39]	−13	[−56, 29]	2.2
13 to 24 months after screening	31	[−38, 100]	37	[−62, 126]	33	[−33, 94]	0.2
24 to 36 months after screening	14	[−77, 105]	15	[−94, 126]	11	[−83, 95]	0.7
37 to 48 months after screening	−41	[−141, 59]	−40	[−166, 82]	−43	[−132, 41]	3.8
Overall	−4	[−37, 29]	−1	[−51, 44]	−3	[−63, 52]	1.3

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare Claim Files, May 2015–December 2024.
Definitions: ACSC = ambulatory care sensitive condition; D-in-D = difference-in-differences; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; Conf. Interval = Confidence Interval; Cred. Interval = Credible Interval.
Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses.

Quality Assurance

Several steps were conducted to ensure the quality of the information presented in this report:

1. A second programmer independently reviewed all claims data processing and outcome programming for accuracy.
2. Two analysts reviewed all claims data processing and outcome programming results.
3. A secondary analyst from the claims team independently reviewed all analysis code.
4. We reviewed all numbers reported for accuracy against raw Stata output.

Appendix B: Additional Results and Detailed Tables to Support Chapters 2 Through 5

This appendix contains detailed tables of data and additional results that support Chapters 2 through 5. For Medicaid, fee-for-service (FFS) Medicare beneficiaries, and the combined Medicare Advantage and FFS population, we present a set of tables showing descriptive trends in key expenditure and other health care outcomes during a 3-year baseline period. These analyses provided additional insight into the beneficiaries identified by the Accountable Health Communities (AHC) Model, as described in Chapter 2, and helped refine the statistical design for impact and subpopulation analyses presented in Chapters 3 and 4. For both Medicaid and FFS Medicare beneficiaries in both tracks, we then provide detailed results tables for the impact analyses and subpopulation analyses presented in Chapters 3 through 5. We next include a results table for the impact analysis of the combined Medicare Advantage and FFS Medicare beneficiaries discussed in Chapter 3. In the concluding section of this appendix, we include a table with the calculations used to determine the gross and net savings discussed in Chapter 3.

Medicaid

Exhibit B-1. Baseline Expenditures and Quality of Care for Navigation-Eligible Medicaid Beneficiaries

Measure/Year	Assistance Track Control Group				Assistance Track Intervention Group				Alignment Track Intervention Group			
	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value
Total expenditures (PBPM)												
3 years before AHC screening	8,971	$1,015	$1,845	Ref	21,224	$1,013	$2,010	0.96	53,670	$1,196	$1,902	< 0.01
2 years before AHC screening	10,179	$1,141	$2,210	Ref	23,883	$1,142	$2,808	0.99	58,989	$1,333	$2,035	< 0.01
1 year before AHC screening	12,345	$1,405	$2,656	Ref	28,942	$1,374	$2,440	0.26	70,330	$1,629	$2,498	< 0.01
All 3 baseline years	31,495	$1,209	$2,311	Ref	74,049	$1,196	$2,459	0.40	182,989	$1,406	$2,197	< 0.01
Admissions per 1,000 beneficiaries												
3 years before AHC screening	11,624	303	1,024	Ref	27,701	302	1,008	0.94	56,056	360	1,098	< 0.01
2 years before AHC screening	13,057	335	1,130	Ref	30,999	339	1,091	0.69	61,607	405	1,191	< 0.01
1 year before AHC screening	15,607	486	1,299	Ref	37,026	480	1,257	0.60	73,471	624	1,423	< 0.01
All 3 baseline years	40,288	385	1,174	Ref	95,726	384	1,139	0.83	191,134	476	1,266	< 0.01
ACSC admissions per 1,000 beneficiaries												
3 years before AHC screening	11,624	29	307	Ref	27,701	33	336	0.28	56,056	40	365	< 0.01
2 years before AHC screening	13,057	34	364	Ref	30,999	35	331	0.83	61,607	47	423	< 0.01
1 year before AHC screening	15,607	49	444	Ref	37,026	51	396	0.67	73,471	66	506	< 0.01
All 3 baseline years	40,288	38	383	Ref	95,726	40	359	0.37	191,134	52	442	< 0.01
Unplanned readmissions per 1,000 discharges												
3 years before AHC screening	1,978	212	409	Ref	4,609	197	398	0.17	12,697	193	394	0.05
2 years before AHC screening	2,409	205	404	Ref	5,719	201	401	0.64	15,395	209	407	0.66
1 year before AHC screening	4,376	225	418	Ref	10,184	222	415	0.66	28,348	213	410	0.08
All 3 baseline years	8,763	217	412	Ref	20,512	210	408	0.23	56,440	208	406	0.05
ED visits per 1,000 beneficiaries												
3 years before AHC screening	11,624	2,383	4,634	Ref	27,701	2,293	4,548	0.08	56,056	3,005	6,300	< 0.01
2 years before AHC screening	13,057	2,443	5,170	Ref	30,999	2,374	4,592	0.19	61,607	3,151	6,537	< 0.01
1 year before AHC screening	15,607	3,623	5,345	Ref	37,026	3,580	4,986	0.39	73,471	4,375	6,805	< 0.01
All 3 baseline years	40,288	2,888	5,127	Ref	95,726	2,822	4,777	0.03	191,134	3,578	6,604	< 0.01

Measure/Year	Assistance Track Control Group				Assistance Track Intervention Group				Alignment Track Intervention Group			
	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value
PCP visits per 1,000 beneficiaries												
3 years before AHC screening	11,624	4,242	5,593	Ref	27,701	4,249	5,530	0.91	56,056	4,795	6,118	< 0.01
2 years before AHC screening	13,057	4,376	5,634	Ref	30,999	4,365	5,497	0.85	61,607	5,131	6,372	< 0.01
1 year before AHC screening	15,607	4,972	6,051	Ref	37,026	5,001	5,873	0.62	73,471	6,402	6,987	< 0.01
All 3 baseline years	40,288	4,571	5,799	Ref	95,726	4,580	5,666	0.80	191,134	5,520	6,582	< 0.01
Specialist visits per 1,000 beneficiaries												
3 years before AHC screening	11,624	3,367	5,945	Ref	27,701	3,323	5,609	0.50	56,056	3,192	5,425	< 0.01
2 years before AHC screening	13,057	3,330	5,793	Ref	30,999	3,259	5,679	0.24	61,607	3,179	5,583	0.01
1 year before AHC screening	15,607	3,640	5,844	Ref	37,026	3,584	5,839	0.32	73,471	3,588	5,876	0.32
All 3 baseline years	40,288	3,462	5,858	Ref	95,726	3,404	5,724	0.10	191,134	3,340	5,656	< 0.01

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; N = number of beneficiaries for all outcomes except unplanned readmission, where it refers to number of discharges; PBPM = per beneficiary per month; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the Assistance Track control group as the reference comparator.

Exhibit B-2. Baseline Expenditures and Quality of Care by AHC Eligibility Criteria for Medicaid Beneficiaries

Description	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Unique beneficiaries	165,141	182,554	223,566	227,096	74,728	84,456	101,381	102,493	90,533	99,560	121,327	123,099	95,877	106,214	126,695	128,043
Total expenditures PBPM	$623	$666	$778	$697	$892	$974	$1,213	$1,044	$718	$775	$872	$796	$1,138	$1,272	$1,547	$1,339
Std dev	$1,321	$1,399	$1,459	$1,402	$1,901	$1,976	$2,429	$2,150	$1,308	$1,427	$1,512	$1,428	$1,943	$2,291	$2,519	$2,296
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Admissions per 1,000 beneficiaries	118	121	194	148	240	272	419	320	132	132	184	152	341	382	568	442
Std dev	521	538	715	609	861	949	1,122	1,001	532	539	664	589	1,075	1,167	1,371	1,230
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
ACSC admissions per 1,000 beneficiaries	4	5	7	5	20	21	32	25	7	7	8	7	37	43	60	48
Std dev	88	92	130	107	264	260	315	284	112	128	128	124	353	394	471	415
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Number of discharges	10,078	10,968	19,856	40,902	9,696	11,688	24,128	45,512	6,795	7,211	10,400	24,406	19,567	23,879	43,347	86,793
Unplanned readmissions per 1,000 discharges	78	77	78	78	161	180	183	178	73	72	75	74	197	208	217	210
Std dev	268	266	268	268	367	384	387	382	260	259	263	261	398	406	412	408
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref

Description	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
ED visits per 1,000 beneficiaries	765	701	912	801	1,857	1,918	3,165	2,390	920	829	892	880	2,735	2,848	4,059	3,283
Std dev	1,843	1,711	1,991	1,864	3,894	4,075	4,437	4,218	2,085	1,923	1,946	1,981	5,695	5,897	6,197	5,990
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
PCP visits per 1,000 beneficiaries	3,362	3,391	4,168	3,683	4,365	4,524	5,548	4,880	3,667	3,731	4,428	3,979	4,573	4,817	5,813	5,131
Std dev	4,617	4,649	5,143	4,852	5,524	5,644	6,311	5,907	4,987	5,025	5,257	5,116	5,900	6,051	6,600	6,251
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Specialist visits per 1,000 beneficiaries	2,162	2,021	2,227	2,142	2,738	2,680	3,010	2,826	2,328	2,234	2,378	2,317	3,256	3,229	3,598	3,380
Std dev	4,009	3,928	4,109	4,023	4,987	4,986	5,225	5,084	4,349	4,580	4,536	4,497	5,544	5,640	5,862	5,702
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the navigation-eligible group as the reference comparator.

Exhibit B-3. Baseline Expenditures and Quality of Care by Number of Core Needs for Navigation-Eligible Medicaid Beneficiaries

Description	1 Core Need Reported				2 Core Needs Reported				3 or More Core Needs Reported			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Unique beneficiaries	38,015	42,522	51,246	51,793	29,057	32,156	38,384	38,783	28,805	31,536	37,065	37,467
Total expenditures PBPM	$1,065	$1,186	$1,434	$1,248	$1,138	$1,268	$1,562	$1,344	$1,231	$1,387	$1,681	$1,453
Std dev	$1,956	$2,311	$2,459	$2,281	$1,958	$2,009	$2,685	$2,288	$1,908	$2,514	$2,416	$2,319
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Admissions per 1,000 beneficiaries	304	340	508	395	332	370	548	428	397	449	671	518
Std dev	1,018	1,094	1,255	1,143	1,022	1,087	1,307	1,164	1,191	1,324	1,568	1,392
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
ACSC admissions per 1,000 beneficiaries	31	35	49	39	38	41	58	47	44	55	78	60
Std dev	321	343	398	360	347	325	439	379	396	504	583	508
P-value	Ref	Ref	Ref	Ref	< 0.01	0.01	< 0.01	< 0.01	0.07	< 0.01	< 0.01	< 0.01
Number of discharges	6,789	8,220	15,479	30,488	5,871	7,161	12,909	25,941	6,907	8,498	14,959	30,364
Unplanned readmissions per 1,000 discharges	197	201	201	200	190	192	207	199	203	229	243	230
Std dev	397	401	401	400	393	394	405	399	402	420	429	421
P-value	Ref	Ref	Ref	Ref	0.04	< 0.01	0.02	0.74	< 0.01	< 0.01	< 0.01	< 0.01
ED visits per 1,000 beneficiaries	2,383	2,467	3,642	2,902	2,698	2,795	3,961	3,218	3,231	3,408	4,732	3,861
Std dev	4,919	4,941	5,358	5,136	5,516	5,803	5,902	5,791	6,692	7,011	7,393	7,102
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Description	1 Core Need Reported				2 Core Needs Reported				3 or More Core Needs Reported			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
PCP visits per 1,000 beneficiaries	4,600	4,817	5,905	5,180	4,635	4,880	5,870	5,192	4,476	4,755	5,627	5,005
Std dev	5,891	5,951	6,540	6,199	5,971	5,984	6,609	6,253	5,840	6,248	6,670	6,317
P-value	Ref	Ref	Ref	Ref	0.44	0.15	0.44	0.77	< 0.01	0.01	< 0.01	< 0.01
Specialist visits per 1,000 beneficiaries	3,079	3,058	3,415	3,203	3,310	3,283	3,649	3,433	3,434	3,402	3,798	3,562
Std dev	5,256	5,389	5,580	5,429	5,736	5,822	5,964	5,855	5,705	5,771	6,123	5,892
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.01	< 0.01	< 0.01

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated by comparing beneficiaries with two reported core needs to beneficiaries with one reported core need and by comparing beneficiaries with three or more reported core needs to beneficiaries with two reported core needs. No p-value was calculated for one reported core need.

Exhibit B-4. Regression-Adjusted Comparison of Post-Screening Means for Assistance Track Navigation-Eligible Medicaid Beneficiaries and Assistance Track Control Group Medicaid Beneficiaries, Main Outcomes

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Total expenditures PBPM					
Unique number of beneficiaries	28,015	11,970			
Over 3-year baseline	$1,239	$1,251	−$12	−1%	0.77
1 to 12 months after screening	$1,464	$1,507	−$43	−3%	0.10
13 to 24 months after screening	$1,460	$1,491	−$30	−2%	0.20
25 to 36 months after screening	$1,513	$1,570	−$58	−4%	0.07
37 to 48 months after screening	$1,578	$1,631	−$54	−3%	0.12
Overall	$1,494	$1,539	−$45	−3%	0.02
ED visits per 1,000 beneficiaries					
Unique number of beneficiaries	35,819	15,080			
Over 3-year baseline	711	730	−19	−3%	0.04
1 to 12 months after screening	668	681	−14	−2%	0.04
13 to 24 months after screening	564	565	−2	−0.3%	0.70
25 to 36 months after screening	532	525	8	1%	0.17
37 to 48 months after screening	505	499	6	1%	0.34
Overall	574	576	−1	−0.2%	0.59
Avoidable ED visits per 1,000 beneficiaries					
Over 3-year baseline	326	335	−9	−3%	0.16
1 to 12 months after screening	295	302	−7	−2%	0.08
13 to 24 months after screening	244	245	−1	−0.5%	0.67
25 to 36 months after screening	225	222	3	1%	0.35
37 to 48 months after screening	210	209	1	1%	0.69
Overall	247	248	−1	−0.5%	0.46

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Inpatient admissions per 1,000 beneficiaries					
Over 3-year baseline	97	98	−1	−1%	0.72
1 to 12 months after screening	94	99	−5	−5%	0.05
13 to 24 months after screening	73	74	−1	−1%	0.74
25 to 36 months after screening	66	66	−0.4	−1%	0.79
37 to 48 months after screening	60	66	−7	−10%	0.04
Overall	74	77	−3	−3%	0.04
ACSC admissions per 1,0000 beneficiaries					
Over 3-year baseline	10	10	0.3	3%	0.80
1 to 12 months after screening	11	10	0.5	5%	0.41
13 to 24 months after screening	9	8	1	16%	0.07
25 to 36 months after screening	8	7	0.4	6%	0.47
37 to 48 months after screening	6	7	−1	−13%	0.26
Overall	9	8	0.5	6%	0.16
PCP visits per 1,000 beneficiaries					
Over 3-year baseline	1,154	1,154	−0.3	−0.03%	0.98
1 to 12 months after screening	1,233	1,227	7	1%	0.32
13 to 24 months after screening	1,171	1,167	3	0.3%	0.60
25 to 36 months after screening	1,170	1,162	7	1%	0.32
37 to 48 months after screening	1,150	1,161	−12	−1%	0.22
Overall	1,187	1,184	3	0.2%	0.40
Specialist visits per 1,000 beneficiaries					
Over 3-year baseline	863	875	−11	−1%	0.28
1 to 12 months after screening	931	944	−13	−1%	0.07
13 to 24 months after screening	860	863	−2	−0.3%	0.64
25 to 36 months after screening	816	816	−0.2	−0.03%	0.97
37 to 48 months after screening	739	749	−10	−1%	0.19
Overall	850	856	−7	−1%	0.09

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Unplanned readmissions per 1,000 discharges					
Number of discharges	23,774	10,259			
Over 3-year baseline	213	224	−10	−4%	0.58
1 to 12 months after screening	229	244	−15	−6%	0.15
13 to 24 months after screening	227	232	−5	−2%	0.62
25 to 36 months after screening	215	229	−14	−6%	0.29
37 to 48 months after screening	212	266	−56	−21%	0.03
Overall	223	241	−18	−7%	0.04

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission was estimated using a logistic specification. P-values compare the intervention group means with the control group mean.

Exhibit B-5. Difference-in-Differences Results for Alignment Track Navigation-Eligible Medicaid Beneficiaries and Assistance Track Control Group Medicaid Beneficiaries, Main Outcomes

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
Total expenditures PBPM							
Unique number of beneficiaries	65,189	11,752	65,571	11,720			
1 to 12 months after screening	$1,239	$1,201	$1,616	$1,637	−$62	−5%	0.27
13 to 24 months after screening	$1,239	$1,201	$1,747	$1,811	−$105	−8%	0.20
25 to 36 months after screening	$1,239	$1,201	$1,905	$1,992	−$128	−10%	0.20
37 to 48 months after screening	$1,239	$1,201	$2,062	$2,136	−$115	−9%	0.31
Overall	$1,239	$1,201	$1,747	$1,796	−$90	−7%	0.07
ED visits per 1,000 beneficiaries							
Unique number of beneficiaries	68,184	14,870	68,566	14,809			
1 to 12 months after screening	772	714	817	780	−27	−3%	0.17
13 to 24 months after screening	772	714	767	737	−28	−4%	0.19
25 to 36 months after screening	772	714	740	696	−12	−2%	0.54
37 to 48 months after screening	772	714	730	694	−18	−2%	0.46
Overall	772	714	771	734	−22	−3%	0.08
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	330	328	321	331	−13	−4%	0.12
13 to 24 months after screening	330	328	287	298	−11	−3%	0.12
25 to 36 months after screening	330	328	273	273	−2	−1%	0.80
37 to 48 months after screening	330	328	259	266	−8	−3%	0.37
Overall	330	328	288	296	−9	−3%	0.06
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	84	85	148	153	−2	−3%	0.62
13 to 24 months after screening	84	85	131	137	−3	−3%	0.50
25 to 36 months after screening	84	85	124	134	−5	−6%	0.24
37 to 48 months after screening	84	85	120	157	−21	−25%	0.02
Overall	84	85	131	143	−6	−7%	0.05
ACSC admissions per 1,0000 beneficiaries							
1 to 12 months after screening	8	8	21	24	−1	−11%	0.44
13 to 24 months after screening	8	8	23	22	1	13%	0.26

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
25 to 36 months after screening	8	8	20	21	−0.2	−2%	0.83
37 to 48 months after screening	8	8	18	27	−4	−47%	0.09
Overall	8	8	21	22	−0.2	−2%	0.70
PCP visits per 1,000 beneficiaries							
1 to 12 months after screening	1,278	1,119	1,504	1,323	−9	−1%	0.82
13 to 24 months after screening	1,278	1,119	1,459	1,383	−112	−9%	0.08
25 to 36 months after screening	1,278	1,119	1,488	1,391	−93	−7%	0.19
37 to 48 months after screening	1,278	1,119	1,522	1,448	−118	−9%	0.21
Overall	1,278	1,119	1,490	1,365	−65	−5%	0.07
Specialist visits per 1,000 beneficiaries							
1 to 12 months after screening	736	902	850	1,125	−65	−9%	0.11
13 to 24 months after screening	736	902	824	1,109	−72	−10%	0.13
25 to 36 months after screening	736	902	854	1,060	−10	−1%	0.82
37 to 48 months after screening	736	902	902	1,007	71	10%	0.27
Overall	736	902	850	1,093	−40	−5%	0.12
Unplanned readmissions per 1,000 discharges							
Number of discharges	49,219	7,958	54,879	9,994			
1 to 12 months after screening	198	214	236	259	−4	−2%	0.71
13 to 24 months after screening	198	214	237	243	13	7%	0.25
25 to 36 months after screening	198	214	237	251	6	3%	0.71
37 to 48 months after screening	198	214	225	300	−57	−29%	0.04
Overall	198	214	235	257	−2	−1%	0.72

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable times a propensity score weight. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification.

Exhibit B-6. Number and Percentage of Navigation-Eligible Medicaid Beneficiaries by Track and Subpopulation: Multiple Needs

Subpopulation	Assistance Track Intervention Group (N = 35,819)	Alignment Track Intervention Group (N = 69,825)	Assistance Track Control Group (N = 15,080)
Multiple needs	19,828 (55.4%)	42,838 (61.4%)	8,805 (58.4%)

Exhibit B-7. Regression-Adjusted Comparison of Post-Screening Means for Assistance Track Navigation-Eligible Medicaid Beneficiaries by Subpopulation: Multiple Needs

Outcome	Baseline		Overall	
	People with One Need	People with Multiple Needs	People with One Need	People with Multiple Needs
Beneficiary-level outcomes				
Assistance Track intervention, N	12,651	15,473	12,606	15,409
Assistance Track control, N	4,971	7,037	4,941	7,029
Total expenditures PBPM				
Assistance Track intervention, mean	$1,141	$1,206	$1,433	$1,624
Assistance Track control, mean	$1,152	$1,214	$1,490	$1,648
Controlled difference			–$57	–$24
P-value (for controlled difference)			< 0.01	0.07
P-value (for difference in controlled differences)				0.10
ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	657	736	541	619
Assistance Track control, mean	663	759	529	626
Controlled difference			11	–7
P-value (for controlled difference)			< 0.01	0.01
P-value (for difference in controlled differences)				< 0.01
Avoidable ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	318	341	236	255
Assistance Track control, mean	319	354	232	260
Controlled difference			4	–5
P-value (for controlled difference)			0.04	0.01
P-value (for difference in controlled differences)				< 0.01

Outcome	Baseline		Overall	
	People with One Need	People with Multiple Needs	People with One Need	People with Multiple Needs
Inpatient admissions visits per 1,000 beneficiaries				
Assistance Track intervention, mean	87	98	71	83
Assistance Track control, mean	89	98	72	86
Controlled difference			–1	–4
P-value (for controlled difference)			0.65	< 0.01
P-value (for difference in controlled differences)				0.04
ACSC admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	9	10	9	9
Assistance Track control, mean	8	10	8	9
Controlled difference			0.3	1
P-value (for controlled difference)			0.51	0.06
P-value (for difference in controlled differences)				0.42
PCP visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,166	1,109	1,215	1,193
Assistance Track control, mean	1,165	1,113	1,181	1,212
Controlled difference			33	–19
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Specialist visits per 1,000 beneficiaries				
Assistance Track intervention, mean	805	867	841	888
Assistance Track control, mean	819	873	844	894
Controlled difference			–3	–6
P-value (for controlled difference)			0.44	0.06
P-value (for difference in controlled differences)				0.50
Discharge-level outcomes				
Assistance Track intervention, discharges	3,556	5,249	3,806	5,560
Assistance Track control, discharges	1,367	2,327	1,462	2,535

Outcome	Baseline		Overall	
	People with One Need	People with Multiple Needs	People with One Need	People with Multiple Needs
Unplanned readmissions per 1,000 discharges				
Assistance Track intervention, mean	200	216	222	229
Assistance Track control, mean	215	223	263	235
Controlled difference			–41	–5
P-value (for controlled difference)			< 0.01	0.38
P-value (for difference in controlled differences)				< 0.01

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The controlled difference compares the intervention and control group means within each subpopulation; the p-value for the controlled difference tests whether the controlled difference is statistically significant; the p-value for the difference in controlled differences tests whether the subpopulation-specific controlled differences are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-8. Difference-in-Differences Results for Alignment Track Navigation-Eligible Medicaid Beneficiaries and Assistance Track Control Group Medicaid Beneficiaries by Subpopulation: Multiple Needs

Outcome	Baseline		Overall	
	People with One Need	People with Multiple Needs	People with One Need	People with Multiple Needs
Beneficiary-level outcomes				
Alignment Track intervention, N	24,937	40,252	24,999	40,572
Assistance Track control, N	4,877	6,875	4,849	6,871
Total expenditures PBPM				
Alignment Track intervention, mean	$1,421	$1,341	$1,712	$1,744
Assistance Track control, mean	$1,314	$1,340	$1,605	$1,743
Difference-in-differences			–$86	–$110
P-value (for D-in-D)			0.34	0.46
P-value (for difference in D-in-D estimates)				0.72
ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	819	928	632	755
Assistance Track control, mean	757	855	584	696
Difference-in-differences			–27	–27
P-value (for D-in-D)			0.30	0.44
P-value (for difference in D-in-D estimates)				1.00
Avoidable ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	358	382	249	280
Assistance Track control, mean	351	382	244	280
Difference-in-differences			–11	–10
P-value (for D-in-D)			0.20	0.39
P-value (for difference in D-in-D estimates)				0.92
Inpatient admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	114	120	89	103
Assistance Track control, mean	117	121	91	103
Difference-in-differences			–5	–7

Outcome	Baseline		Overall	
	People with One Need	People with Multiple Needs	People with One Need	People with Multiple Needs
P-value (for D-in-D)			0.51	0.22
P-value (for difference in D-in-D estimates)				0.81
ACSC admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	11	14	10	13
Assistance Track control, mean	14	13	12	12
Difference-in-differences			–0.4	–1
P-value (for D-in-D)			0.83	0.57
P-value (for difference in D-in-D estimates)				0.89
PCP visits				
Alignment Track intervention, mean	1,459	1,337	1,449	1,434
Assistance Track control, mean	1,275	1,170	1,267	1,255
Difference-in-differences			–25	–108
P-value (for D-in-D)			0.76	0.24
P-value (for difference in D-in-D estimates)				0.03
Specialist visits				
Alignment Track intervention, mean	829	807	792	802
Assistance Track control, mean	987	1,004	943	998
Difference-in-differences			–33	–36
P-value (for D-in-D)			0.67	0.60
P-value (for difference in D-in-D estimates)				0.94
Discharge-level outcomes				
Alignment Track intervention, discharges	7,942	14,214	8,069	14,199
Assistance Track control, discharges	1,331	2,224	1,454	2,442

Outcome	Baseline		Overall	
	People with One Need	People with Multiple Needs	People with One Need	People with Multiple Needs
Unplanned readmissions per 1,000 discharges				
Alignment Track intervention, mean	206	211	219	228
Assistance Track control, mean	232	222	249	241
Difference-in-differences			–20	11
P-value (for D-in-D)			0.52	0.42
P-value (for difference in D-in-D estimates)				0.30

Source: RTI analysis of Chronic Conditions Data Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; D-in-D = difference-in-differences; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The difference-in-differences estimate represents the difference in outcome changes between the intervention and comparison groups within each subpopulation; the p-value for the difference-in-differences tests whether the difference-in-differences estimate is statistically significant; the p-value for the difference in the difference-in-differences estimates tests whether the subpopulation-level D-in-D estimates are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

FFS Medicare

Exhibit B-9. Baseline Expenditures and Quality of Care for Navigation-Eligible FFS Medicare Beneficiaries

Measure/Year	Assistance Track Control Group				Assistance Track Intervention Group				Alignment Track Intervention Group			
	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value
Total expenditures PBPM												
3 years before AHC screening	4,168	$1,562	$2,919	Ref	10,253	$1,460	$2,538	0.05	16,064	$1,714	$2,958	< 0.01
2 years before AHC screening	4,262	$1,804	$3,073	Ref	10,358	$1,735	$2,956	0.21	16,843	$2,042	$4,035	< 0.01
1 year before AHC screening	4,315	$2,967	$4,410	Ref	10,473	$2,799	$4,199	0.03	17,527	$3,136	$4,752	0.03
All 3 baseline years	12,745	$2,110	$3,582	Ref	31,084	$1,994	$3,351	< 0.01	50,434	$2,312	$4,048	< 0.01
ED expenditures PBPM												
3 years before AHC screening	4,168	$97	$241	Ref	10,253	$94	$245	0.48	16,064	$123	$376	< 0.01
2 years before AHC screening	4,262	$104	$244	Ref	10,358	$103	$256	0.77	16,843	$136	$350	< 0.01
1 year before AHC screening	4,315	$161	$331	Ref	10,473	$155	$324	0.36	17,527	$198	$423	< 0.01
All 3 baseline years	12,745	$121	$277	Ref	31,084	$117	$278	0.24	50,434	$153	$386	< 0.01
Inpatient expenditures PBPM												
3 years before AHC screening	4,168	$628	$2,001	Ref	10,253	$557	$1,576	0.04	16,064	$708	$1,891	0.02
2 years before AHC screening	4,262	$710	$1,927	Ref	10,358	$694	$1,916	0.67	16,843	$895	$2,775	< 0.01
1 year before AHC screening	4,315	$1,407	$2,943	Ref	10,473	$1,303	$2,861	0.05	17,527	$1,575	$3,314	< 0.01
All 3 baseline years	12,745	$914	$2,361	Ref	31,084	$849	$2,206	0.01	50,434	$1,068	$2,763	< 0.01
PAC expenditures PBPM												
3 years before AHC screening	4,168	$189	$700	Ref	10,253	$186	$669	0.83	16,064	$189	$746	0.98
2 years before AHC screening	4,262	$237	$775	Ref	10,358	$236	$788	0.93	16,843	$220	$778	0.18
1 year before AHC screening	4,315	$433	$1,205	Ref	10,473	$410	$1,117	0.28	17,527	$365	$1,067	< 0.01
All 3 baseline years	12,745	$286	$926	Ref	31,084	$277	$883	0.32	50,434	$260	$882	< 0.01
Admissions per 1,000 beneficiaries												
3 years before AHC screening	4,168	614	1,660	Ref	10,253	551	1,316	0.03	16,064	607	1,420	0.80
2 years before AHC screening	4,262	658	1,479	Ref	10,358	643	1,433	0.56	16,843	705	1,576	0.07
1 year before AHC screening	4,315	1,115	1,867	Ref	10,473	1,083	1,864	0.34	17,527	1,116	1,857	0.98
All 3 baseline years	12,745	795	1,690	Ref	31,084	757	1,571	0.03	50,434	814	1,647	0.25

Measure/Year	Assistance Track Control Group				Assistance Track Intervention Group				Alignment Track Intervention Group			
	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value
ACSC admissions per 1,000 beneficiaries												
3 years before AHC screening	4,168	142	800	Ref	10,253	120	579	0.11	16,064	132	594	0.46
2 years before AHC screening	4,262	137	564	Ref	10,358	151	604	0.19	16,843	161	652	0.01
1 year before AHC screening	4,315	257	831	Ref	10,473	251	841	0.70	17,527	249	793	0.56
All 3 baseline years	12,745	178	743	Ref	31,084	173	686	0.52	50,434	182	689	0.62
Unplanned readmissions per 1,000 discharges												
3 years before AHC screening	2,036	229	421	Ref	4,627	206	405	0.04	7,891	216	412	0.20
2 years before AHC screening	2,266	225	418	Ref	5,341	221	415	0.68	9,422	235	424	0.33
1 year before AHC screening	3,773	272	445	Ref	8,864	260	439	0.15	15,209	257	437	0.06
All 3 baseline years	8,075	248	432	Ref	18,832	236	424	0.03	32,522	241	427	0.16
ED visits per 1,000 beneficiaries												
3 years before AHC screening	4,168	1,919	4,204	Ref	10,253	1,932	4,637	0.87	16,064	2,324	5,564	< 0.01
2 years before AHC screening	4,262	1,989	4,305	Ref	10,358	1,977	4,676	0.88	16,843	2,410	5,671	< 0.01
1 year before AHC screening	4,315	2,851	5,570	Ref	10,473	2,717	5,747	0.19	17,527	3,307	6,233	< 0.01
All 3 baseline years	12,745	2,252	4,751	Ref	31,084	2,206	5,055	0.36	50,434	2,690	5,854	< 0.01
PCP visits per 1,000 beneficiaries												
3 years before AHC screening	4,168	972	2,393	Ref	10,253	981	2,591	0.85	16,064	1,135	2,937	< 0.01
2 years before AHC screening	4,262	1,000	2,417	Ref	10,358	994	2,490	0.89	16,843	1,160	2,930	< 0.01
1 year before AHC screening	4,315	1,344	2,834	Ref	10,473	1,309	3,334	0.52	17,527	1,507	3,161	< 0.01
All 3 baseline years	12,745	1,105	2,561	Ref	31,084	1,094	2,831	0.68	50,434	1,271	3,018	< 0.01
Specialist visits per 1,000 beneficiaries												
3 years before AHC screening	4,168	6,252	6,683	Ref	10,253	6,158	6,604	0.44	16,064	6,857	7,158	< 0.01
2 years before AHC screening	4,262	6,358	6,767	Ref	10,358	6,269	6,677	0.47	16,843	6,911	7,283	< 0.01
1 year before AHC screening	4,315	6,742	6,865	Ref	10,473	6,703	6,883	0.75	17,527	7,372	7,315	< 0.01
All 3 baseline years	12,745	6,450	6,775	Ref	31,084	6,375	6,725	0.29	50,434	7,052	7,258	< 0.01

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; N = number of beneficiaries for all outcomes except unplanned readmission, where it refers to number of discharges FFS = fee-for-service; PAC = post-acute care; PBPM = per beneficiary per month; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the Assistance Track control group as the reference comparator.

Exhibit B-10. Baseline Expenditures and Quality of Care by AHC Eligibility Criteria for FFS Medicare Beneficiaries

Measure	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year d AHC Screening	All Baseline Years
Unique beneficiaries	120,327	128,210	137,941	150,889	54,344	55,635	57,042	62,900	26,165	27,400	28,487	33,276	30,754	31,730	32,591	38,166
Total expenditures (PBPM)	$684	$737	$971	$803	$1,203	$1,436	$2,587	$1,749	$788	$832	$982	$869	$1,621	$1,926	$3,029	$2,198
Std dev	$1,481	$1,637	$1,999	$1,734	$2,222	$2,567	$3,626	$2,939	$1,848	$1,970	$2,189	$2,012	$2,843	$3,614	$4,583	$3,804
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
ED expenditures (PBPM)	$22	$22	$31	$25	$52	$59	$113	$75	$32	$29	$34	$32	$110	$121	$180	$137
Std dev	$89	$88	$106	$95	$162	$190	$235	$200	$110	$112	$140	$121	$322	$310	$384	$342
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Inpatient expenditures (PBPM)	$205	$218	$333	$255	$425	$517	$1,168	$707	$251	$262	$326	$280	$653	$813	$1,479	$985
Std dev	$844	$937	$1,144	$991	$1,303	$1,505	$2,316	$1,800	$992	$1,097	$1,223	$1,110	$1,825	$2,433	$3,166	$2,566
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
PAC expenditures (PBPM)	$74	$83	$110	$90	$160	$204	$392	$253	$84	$96	$107	$96	$191	$231	$393	$272
Std dev	$417	$467	$544	$482	$624	$740	$1,059	$837	$441	$532	$540	$507	$721	$788	$1,110	$895
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.89	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref

Measure	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year d AHC Screening	All Baseline Years
Admissions per 1,000 beneficiaries	176	179	264	208	388	449	960	602	213	206	238	219	594	683	1,111	798
Std dev	567	580	701	623	979	1,054	1,438	1,205	667	650	674	664	1,428	1,524	1,867	1,635
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
ACSC admissions per 1,000 beneficiaries	28	29	45	34	80	99	203	128	37	37	44	40	131	156	253	180
Std dev	214	217	275	238	402	454	630	509	257	261	279	266	626	632	818	700
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Unplanned readmissions per 1,000 discharges	18,778	20,105	30,900	69,783	18,941	22,266	47,744	88,951	4,621	4,577	5,348	14,546	14,777	17,298	28,220	60,295
Mean	96	99	123	109	160	168	215	192	118	108	115	114	216	230	261	241
Std dev	294	298	329	311	367	374	411	394	322	310	319	317	411	421	439	428
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
ED visits per 1,000 beneficiaries	371	352	447	392	937	999	1,746	1,231	617	548	576	580	2,146	2,220	3,065	2,481
Std dev	1,095	1,031	1,119	1,084	2,493	2,599	2,951	2,716	1,537	1,475	1,739	1,590	5,150	5,208	6,023	5,494
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Avoidable ED visits per 1,000 beneficiaries	165	151	180	166	451	464	759	560	290	250	246	261	1,065	1,089	1,427	1,195
Std dev	590	547	591	577	1,382	1,374	1,584	1,458	815	746	806	790	2,780	2,736	3,189	2,915

Measure	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year d AHC Screening	All Baseline Years
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
PCP visits per 1,000 beneficiaries	4,119	4,136	4,559	4,280	5,405	5,672	7,004	6,036	4,410	4,427	4,747	4,531	5,873	6,142	7,142	6,391
Std dev	4,273	4,377	4,715	4,473	5,479	5,769	6,721	6,061	4,852	4,881	5,102	4,951	6,410	6,752	7,592	6,962
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Specialist visits per 1,000 beneficiaries	5,208	5,243	5,385	5,282	6,608	6,806	7,480	6,970	5,346	5,361	5,544	5,419	6,535	6,624	7,070	6,745
Std dev	5,361	5,400	5,447	5,405	6,405	6,503	6,839	6,598	5,859	5,810	6,040	5,906	6,917	7,023	7,121	7,025
P-value	< 0.01	< 0.01	< 0.01	< 0.01	0.13	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; FFS = fee-for-service; PAC = post-acute care; PBPM = per beneficiary per month; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the navigation-eligible group as the reference comparator.

Exhibit B-11. Baseline Expenditures and Quality of Care by Number of Core Needs for Navigation-Eligible FFS Medicare Beneficiaries

Measure	1 Core Need Reported				2 Core Needs Reported				3 or More Core Needs Reported			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Unique beneficiaries	15,134	15,518	15,850	18,417	8,618	8,961	9,226	10,857	7,002	7,251	7,515	8,892
Total expenditures PBPM	$1,505	$1,795	$2,903	$2,072	$1,706	$2,035	$3,114	$2,292	$1,771	$2,080	$3,199	$2,359
Std dev	$2,658	$3,121	$4,210	$3,450	$2,969	$4,494	$5,018	$4,304	$3,065	$3,385	$4,791	$3,881
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	0.18	0.47	0.26	0.26
Admissions per 1,000 beneficiaries	529	611	1,059	734	637	709	1,119	824	683	808	1,216	906
Std dev	1,259	1,374	1,732	1,489	1,503	1,546	1,847	1,655	1,661	1,781	2,153	1,893
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	0.01	< 0.01	0.07	< 0.01	< 0.01	< 0.01
ACSC admissions per 1,000 beneficiaries	116	136	243	165	141	173	259	192	152	180	265	200
Std dev	562	570	768	643	663	663	869	741	706	716	857	765
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	0.14	< 0.01	0.32	0.49	0.69	0.46
Unplanned readmissions per 1,000 discharges	6,682	7,886	13,651	28,219	4,403	4,977	7,898	17,278	3,692	4,435	6,671	14,798
Mean	192	205	239	218	220	241	262	245	254	263	302	278
Std dev	394	403	427	413	414	428	440	430	435	440	459	448
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
ED visits per 1,000 beneficiaries	1,705	1,785	2,520	2,005	2,328	2,377	3,207	2,642	2,901	2,991	4,086	3,333
Std dev	4,527	4,479	4,725	4,593	5,402	5,427	6,183	5,700	5,965	6,235	7,921	6,796
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Avoidable ED visits per 1,000 beneficiaries	848	872	1,169	964	1,168	1,191	1,510	1,291	1,422	1,442	1,887	1,586
Std dev	2,396	2,218	2,460	2,365	2,988	2,990	3,221	3,073	3,229	3,337	4,311	3,671
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCP visits per 1,000 beneficiaries	5,862	6,180	7,296	6,450	5,849	6,156	7,157	6,394	5,928	6,041	6,787	6,257
Std dev	6,216	6,588	7,463	6,807	6,402	6,808	7,698	7,019	6,834	7,036	7,729	7,225
P-value	Ref	Ref	Ref	Ref	0.88	0.79	0.17	0.51	0.46	0.30	< 0.01	0.18

Measure	1 Core Need Reported				2 Core Needs Reported				3 or More Core Needs Reported			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Specialist visits per 1,000 beneficiaries	6,633	6,820	7,299	6,919	6,565	6,568	7,095	6,745	6,280	6,260	6,539	6,361
Std dev	6,762	6,843	7,089	6,906	7,088	7,277	7,214	7,199	7,035	7,081	7,044	7,054
P-value	Ref	Ref	Ref	Ref	0.47	0.01	0.03	0.04	0.01	0.01	< 0.01	< 0.01

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; FFS = fee-for-service; PAC = post-acute care; PBPM = per beneficiary per month; PCP = primary care provider; Ref = reference category; Std Dev = standard deviation.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated by comparing beneficiaries with two reported core needs to beneficiaries with one reported core need and by comparing beneficiaries with three or more reported core needs to beneficiaries with two reported core needs. No p-value was calculated for one reported core need.

Exhibit B-12. Regression-Adjusted Comparison of Post-screening Means for Assistance Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries, Main Outcomes

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Unique number of beneficiaries	10,739	4,442			
Total expenditures PBPM					
Over 3-year baseline	$2,079	$2,195	−$113	−5%	0.30
1 to 12 months after screening	$3,257	$3,376	−$119	−4%	0.14
13 to 24 months after screening	$2,780	$2,786	−$6	−0.2%	0.93
25 to 36 months after screening	$2,679	$2,938	−$259	−9%	0.04
37 to 48 months after screening	$2,695	$2,779	−$85	−3%	0.44
Overall	$2,921	$3,033	−$111	−4%	0.05
ED visits per 1,000 beneficiaries					
Over 3-year baseline	532	544	−11	−2%	0.42
1 to 12 months after screening	588	620	−31	−5%	0.03
13 to 24 months after screening	524	532	−8	−2%	0.39
25 to 36 months after screening	480	532	−49	−9%	0.01
37 to 48 months after screening	459	443	16	4%	0.25
Overall	524	545	−21	−4%	0.02
Avoidable ED visits per 1,000 beneficiaries					
Over 3-year baseline	262	266	−3	−1%	0.74
1 to 12 months after screening	280	295	−15	−5%	0.07
13 to 24 months after screening	242	250	−8	−3%	0.25
25 to 36 months after screening	215	247	−28	−12%	0.02
37 to 48 months after screening	196	200	−4	−2%	0.63
Overall	240	255	−14	−5%	0.02
Inpatient admissions per 1,000 beneficiaries					
Over 3-year baseline	189	199	−10	−5%	0.24
1 to 12 months after screening	262	263	−1	−1%	0.80
13 to 24 months after screening	216	221	−5	−2%	0.46
25 to 36 months after screening	198	207	−9	−4%	0.23
37 to 48 months after screening	197	200	−3	−1%	0.73

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Overall	224	228	−4	−2%	0.23
ACSC admissions per 1,0000 beneficiaries					
Over 3-year baseline	42	44	−2	−4%	0.69
1 to 12 months after screening	58	59	−1	−2%	0.62
13 to 24 months after screening	49	53	−4	−7%	0.26
25 to 36 months after screening	42	46	−5	−10%	0.21
37 to 48 months after screening	39	49	−11	−22%	0.06
Overall	49	53	−4	−8%	0.06
Outpatient visits per 1,0000 beneficiaries					
Over 3-year baseline	7,442	7,704	−254	−3%	< 0.01
1 to 12 months after screening	9,472	9,773	−302	−3%	< 0.01
13 to 24 months after screening	8,903	9,252	−354	−4%	< 0.01
25 to 36 months after screening	8,929	9,455	−535	−6%	< 0.01
37 to 48 months after screening	8,835	9,600	−779	−8%	< 0.01
Overall	9,103	9,528	−431	−5%	< 0.01
PCP visits per 1,0000 beneficiaries					
Over 3-year baseline	1,629	1,644	−14	−1%	0.56
1 to 12 months after screening	2,091	2,119	−28	−1%	0.16
13 to 24 months after screening	2,062	2,137	−75	−4%	0.02
25 to 36 months after screening	2,099	2,200	−102	−5%	0.01
37 to 48 months after screening	2,101	2,285	−188	−8%	0.01
Overall	2,086	2,162	−77	−4%	< 0.01
Specialist visits per 1,0000 beneficiaries					
Over 3-year baseline	1,593	1,606	−13	−1%	0.60
1 to 12 months after screening	1,710	1,781	−71	−4%	0.01
13 to 24 months after screening	1,597	1,654	−57	−3%	0.03
25 to 36 months after screening	1,619	1,628	−9	−1%	0.62
37 to 48 months after screening	1,571	1,624	−53	−3%	0.09
Overall	1,637	1,688	−51	−3%	0.01
Unplanned readmissions per 1,000 discharges					
Number of discharges	17,918	7,489			

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Over 3-year baseline	237	249	−12	−5%	0.54
1 to 12 months after screening	275	285	−10	−4%	0.37
13 to 24 months after screening	257	284	−28	−10%	0.10
25 to 36 months after screening	260	271	−11	−4%	0.49
37 to 48 months after screening	236	278	−42	−15%	0.10
Overall	262	281	−19	−7%	0.05

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. The total expenditure outcome was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, outpatient visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. P-values compare the intervention group means with the control group mean.

Exhibit B-13. Difference-in-Differences Results for Alignment Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries, Main Outcomes

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
Unique number of beneficiaries	20,280	5,078	18,712	4,442			
Total expenditures PBPM							
1 to 12 months after screening	$2,318	$2,275	$3,125	$3,238	−$140	−6%	0.35
13 to 24 months after screening	$2,318	$2,275	$3,020	$3,004	−$11	−0.5%	0.92
25 to 36 months after screening	$2,318	$2,275	$3,047	$3,273	−$254	−11%	0.19
37 to 48 months after screening	$2,318	$2,275	$3,083	$3,095	−$38	−2%	0.78
Overall	$2,318	$2,275	$3,063	$3,121	−$86	−4%	0.25
ED visits per 1,000 beneficiaries							
1 to 12 months after screening	638	563	706	642	−18	−3%	0.45
13 to 24 months after screening	638	563	628	571	−16	−2%	0.52
25 to 36 months after screening	638	563	603	579	−46	−7%	0.26
37 to 48 months after screening	638	563	593	499	28	4%	0.42
Overall	638	563	646	585	−13	−2%	0.37
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	302	274	317	304	−16	−5%	0.19
13 to 24 months after screening	302	274	280	267	−12	−4%	0.32
25 to 36 months after screening	302	274	268	262	−19	−6%	0.28
37 to 48 months after screening	302	274	252	225	4	1%	0.80
Overall	302	274	288	274	−13	−4%	0.12

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	195	203	247	258	1	1%	0.90
13 to 24 months after screening	195	203	222	237	−4	−2%	0.70
25 to 36 months after screening	195	203	219	236	−6	−3%	0.65
37 to 48 months after screening	195	203	206	233	−16	−8%	0.22
Overall	195	203	225	242	−5	−3%	0.35
ACSC admissions per 1,0000 beneficiaries							
1 to 12 months after screening	43	45	55	56	2	4%	0.62
13 to 24 months after screening	43	45	50	55	−2	−5%	0.58
25 to 36 months after screening	43	45	51	50	3	6%	0.60
37 to 48 months after screening	43	45	46	56	−7	−17%	0.26
Overall	43	45	51	55	−0.4	−1%	0.83
Outpatient visits per 1,0000 beneficiaries							
1 to 12 months after screening	7,556	7,679	9,152	9,490	−161	−2%	0.25
13 to 24 months after screening	7,556	7,679	9,110	9,360	−72	−1%	0.61
25 to 36 months after screening	7,556	7,679	9,282	9,806	−331	−4%	0.11
37 to 48 months after screening	7,556	7,679	9,269	10,054	−580	−8%	0.03
Overall	7,556	7,679	9,189	9,622	−248	−3%	0.03
PCP visits per 1,0000 beneficiaries							
1 to 12 months after screening	1,568	1,589	1,897	1,968	−40	−3%	0.43
13 to 24 months after screening	1,568	1,589	1,966	2,062	−65	−4%	0.30

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
25 to 36 months after screening	1,568	1,589	2,055	2,134	−45	−3%	0.48
37 to 48 months after screening	1,568	1,589	2,088	2,296	−173	−11%	0.07
Overall	1,568	1,589	1,981	2,083	−70	−4%	0.08
Specialist visits per 1,0000 beneficiaries							
1 to 12 months after screening	1,758	1,604	1,890	1,742	−18	−1%	0.54
13 to 24 months after screening	1,758	1,604	1,832	1,644	31	2%	0.46
25 to 36 months after screening	1,758	1,604	1,815	1,644	14	1%	0.80
37 to 48 months after screening	1,758	1,604	1,744	1,630	−41	−2%	0.50
Overall	1,758	1,604	1,848	1,691	−4	−0.2%	0.83
Unplanned readmissions per 1,000 discharges							
Number of discharges	32,522	8,075	29,736	7,489			
1 to 12 months after screening	231	242	279	287	4	2%	0.76
13 to 24 months after screening	231	242	274	301	−15	−7%	0.28
25 to 36 months after screening	231	242	271	299	−16	−7%	0.34
37 to 48 months after screening	231	242	267	284	−6	−3%	0.74
Overall	231	242	274	293	−8	−3%	0.32

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted using each beneficiary's eligibility fraction as a weight variable times a propensity score weight. The total expenditure outcome was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, outpatient visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. P-values compare the intervention group means with the control group mean.

Exhibit B-14. Assistance Track Navigation-Eligible FFS Medicare Beneficiaries by Subpopulation

Subpopulation	Assistance Track Intervention Group (N = 10,739)	Alignment Track Intervention Group (N = 18,712)	Assistance Track Control Group (N = 4,442)
Dually eligible for Medicare and Medicaid	6,949 (64.7%)	13,629 (72.8%)	2,996 (67.4%)
Assigned to Medicare SSP, NGACO, CPC+, or MD PCP	4,017 (37.4%)	6,565 (35.1%)	1,693 (38.1%)
Had transportation need	4,931 (45.9%)	8,626 (46.1%)	2,165 (48.7%)

Definitions: CPC+ = Comprehensive Primary Care Plus; FFS = fee-for-service; MD PCP = Maryland Primary Care Program; SSP = Shared Savings Program; NGACO = Next Generation Accountable Care Organization.

Exhibit B-15. Regression-Adjusted Comparison of Post-screening Means for Assistance Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Dually Eligible for Medicare and Medicaid

Outcome	Baseline		Overall	
	People Not Dually Eligible	Dually Eligible	People Not Dually Eligible	Dually Eligible
Beneficiary-level outcomes				
Assistance Track intervention, N	4,469	8,009	3,790	6,949
Assistance Track control, N	1,739	3,339	1,446	2,996
Total expenditures PBPM				
Assistance Track intervention, mean	$1,779	$2,118	$2,785	$3,178
Assistance Track control, mean	$1,857	$2,242	$2,889	$3,282
Controlled difference			−$104	−$104
P-value (for controlled difference)			0.07	0.02
P-value (for difference in controlled differences)				1.00
ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	379	622	403	563
Assistance Track control, mean	384	626	374	598
Controlled difference			24	-39
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Avoidable ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	176	317	175	258

Outcome	Baseline		Overall	
	People Not Dually Eligible	Dually Eligible	People Not Dually Eligible	Dually Eligible
Assistance Track control, mean	176	316	152	284
Controlled difference			19	-29
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Inpatient admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	150	207	196	254
Assistance Track control, mean	155	218	199	259
Controlled difference			−3	−4
P-value (for controlled difference)			0.49	0.30
P-value (for difference in controlled differences)				0.86
ACSC admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	31	50	41	56
Assistance Track control, mean	30	53	41	64
Controlled difference			0	−7
P-value (for controlled difference)			0.94	< 0.01
P-value (for difference in controlled differences)				0.02
PCP visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,384	1,784	1,790	2,322
Assistance Track control, mean	1,368	1,811	1,770	2,445
Controlled difference			21	−115
P-value (for controlled difference)			0.14	< 0.01
P-value (for difference in controlled differences)				< 0.01
Specialist visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,576	1,598	1,659	1,633
Assistance Track control, mean	1,539	1,643	1,617	1,746
Controlled difference			45	−110
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Discharge-level outcomes				
Assistance Track intervention, discharges	2,426	3,837	2,102	3,234
Assistance Track control, discharges	958	1,615	810	1,371

Outcome	Baseline		Overall	
	People Not Dually Eligible	Dually Eligible	People Not Dually Eligible	Dually Eligible
Unplanned readmissions per 1,000 discharges				
Assistance Track intervention, mean	203	251	235	279
Assistance Track control, mean	212	259	254	296
Controlled difference			−18	−18
P-value (for controlled difference)			0.07	0.02
P-value (for difference in controlled differences)				0.96

Sample sizes represent the total number of unique beneficiaries observed during the post-screening period or total number of discharges during the post-screening period.
Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The controlled difference compares the intervention and control group means within each subpopulation; the p-value for the controlled difference tests whether the controlled difference is statistically significant; the p-value for the difference in controlled differences tests whether the subpopulation-specific controlled differences are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-16. Regression-Adjusted Comparison of Post-screening Means for Assistance Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Enrolled in an Alternative Payment Model (APM)

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Beneficiary-level outcomes				
Assistance Track intervention, N	8,127	4,351	6,722	4,017
Assistance Track control, N	3,247	1,831	2,749	1,693

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Total expenditures PBPM				
Assistance Track intervention, mean	$1,939	$2,069	$2,960	$3,121
Assistance Track control, mean	$1,987	$2,243	$2,960	$3,356
Controlled difference			$0	−$235
P-value (for controlled difference)			1.00	< 0.01
P-value (for difference in controlled differences)				< 0.01
ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	569	516	521	502
Assistance Track control, mean	546	563	478	609
Controlled difference			46	−95
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Avoidable ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	285	257	235	227
Assistance Track control, mean	272	278	223	274
Controlled difference			13	−41
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Inpatient admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	182	192	223	247

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Assistance Track control, mean	184	210	221	256
Controlled difference			2	−10
P-value (for controlled difference)			0.69	0.04
P-value (for difference in controlled differences)				0.07
ACSC admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	40	46	46	56
Assistance Track control, mean	40	49	47	62
Controlled difference			−2	−6
P-value (for controlled difference)			0.31	0.01
P-value (for difference in controlled differences)				0.12
PCP visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,549	1,720	2,034	2,185
Assistance Track control, mean	1,536	1,753	2,067	2,281
Controlled difference			−34	−97
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Specialist visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,478	1,729	1,530	1,792
Assistance Track control, mean	1,437	1,798	1,523	1,910
Controlled difference			7	−120

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
P-value (for controlled difference)			0.47	< 0.01
P-value (for difference in controlled differences)				< 0.01
Discharge-level outcomes				
Assistance Track intervention, discharges	3,568	2,695	3,019	2,317
Assistance Track control, discharges	1,421	1,152	1,217	964
Unplanned readmissions per 1,000 discharges				
Assistance Track intervention, mean	241	228	260	271
Assistance Track control, mean	231	264	266	302
Controlled difference			−7	−29
P-value (for controlled difference)			0.42	< 0.01
P-value (for difference in controlled differences)				0.06

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The controlled difference compares the intervention and control group means within each subpopulation; the p-value for the controlled difference tests whether the controlled difference is statistically significant; the p-value for the difference in controlled differences tests whether the subpopulation-specific controlled differences are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-17. Regression-Adjusted Comparison of Post-screening Means for Assistance Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Enrolled in an Alternative Payment Model (APM), Among Beneficiaries without Pulmonary Disease or Diabetes

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Beneficiary-level outcomes				
Assistance Track intervention, N	4,096	1,260	3,300	1,143
Assistance Track control, N	1,596	504	1,378	455
Total expenditures PBPM				
Assistance Track intervention, mean	$1,228	$1,317	$2,264	$2,134
Assistance Track control, mean	$1,266	$1,393	$2,163	$2,370
Controlled difference			$99	−$226
P-value (for controlled difference)			0.10	< 0.01
P-value (for difference in controlled differences)				< 0.01
ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	484	420	474	404
Assistance Track control, mean	504	472	404	446
Controlled difference			75	−39
P-value (for controlled difference)			< 0.01	< 0.01
P-value (for difference in controlled differences)				< 0.01
Avoidable ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	228	193	196	168
Assistance Track control, mean	246	201	184	168

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Controlled difference			12	−2
P-value (for controlled difference)			0.03	0.79
P-value (for difference in controlled differences)				0.10
Inpatient admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	110	108	166	155
Assistance Track control, mean	122	123	155	168
Controlled difference			12	−12
P-value (for controlled difference)			0.02	0.07
P-value (for difference in controlled differences)				< 0.01
ACSC admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	14	10	23	21
Assistance Track control, mean	18	12	24	21
Controlled difference			−1	1
P-value (for controlled difference)			0.55	0.76
P-value (for difference in controlled differences)				0.54
PCP visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,179	1,351	1,737	1,817
Assistance Track control, mean	1,183	1,317	1,808	1,936
Controlled difference			−75	−119
P-value (for controlled difference)			< 0.01	< 0.01

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
P-value (for difference in controlled differences)				0.13
Specialist visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,204	1,449	1,310	1,564
Assistance Track control, mean	1,107	1,356	1,233	1,568
Controlled difference			77	−4
P-value (for controlled difference)			< 0.01	0.85
P-value (for difference in controlled differences)				< 0.01
Discharge-level outcomes				
Assistance Track intervention, discharges	1,098	608	1,100	541
Assistance Track control, discharges	452	239	435	220
Unplanned readmissions per 1,000 discharges				
Assistance Track intervention, mean	190	163	246	208
Assistance Track control, mean	187	226	217	209
Controlled difference			30	2
P-value (for controlled difference)			0.04	0.91
P-value (for difference in controlled differences)				0.25

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The controlled difference compares the intervention and control group means within each subpopulation; the p-value for the controlled difference tests whether the controlled difference is statistically significant; the p-value for the difference in controlled differences tests whether the subpopulation-specific controlled differences are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-18. Regression-Adjusted Comparison of Post-screening Means for Assistance Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Transportation Need

Outcome	Baseline		Overall	
	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need
Beneficiary-level outcomes				
Assistance Track intervention, N	6,747	5,731	5,808	4,931
Assistance Track control, N	2,641	2,437	2,277	2,165
Total expenditures PBPM				
Assistance Track intervention, mean	$1,799	$2,220	$2,680	$3,446
Assistance Track control, mean	$1,849	$2,381	$2,776	$3,532
Controlled difference			−$97	−$86
P-value (for controlled difference)			0.04	0.09
P-value (for difference in controlled differences)				0.88
ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	529	568	475	556
Assistance Track control, mean	516	592	478	580
Controlled difference			−3	−25
P-value (for controlled difference)			0.59	< 0.01

Outcome	Baseline		Overall	
	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need
P-value (for difference in controlled differences)				0.01
Avoidable ED visits per 1,000 beneficiaries				
Assistance Track intervention, mean	266	283	217	248
Assistance Track control, mean	260	289	221	266
Controlled difference			−3	−18
P-value (for controlled difference)			0.42	< 0.01
P-value (for difference in controlled differences)				0.01
Inpatient admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	170	205	204	266
Assistance Track control, mean	173	221	208	268
Controlled difference			−4	−2
P-value (for controlled difference)			0.30	0.75
P-value (for difference in controlled differences)				0.68
ACSC admissions per 1,000 beneficiaries				
Assistance Track intervention, mean	37	49	43	58
Assistance Track control, mean	39	49	46	63
Controlled difference			−2	−5
P-value (for controlled difference)			0.17	0.02
P-value (for difference in controlled differences)				0.31
PCP visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,605	1,647	1,978	2,246

Outcome	Baseline		Overall	
	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need
Assistance Track control, mean	1,622	1,651	2,102	2,236
Controlled difference			−124	11
P-value (for controlled difference)			< 0.01	0.41
P-value (for difference in controlled differences)				< 0.01
Specialist visits per 1,000 beneficiaries				
Assistance Track intervention, mean	1,548	1,638	1,621	1,671
Assistance Track control, mean	1,558	1,653	1,647	1,753
Controlled difference			−25	−82
P-value (for controlled difference)			0.02	< 0.01
P-value (for difference in controlled differences)				< 0.01
Discharge-level outcomes				
Assistance Track intervention, discharges	3,209	3,054	2,746	2,590
Assistance Track control, discharges	1,248	1,325	1,063	1,118
Unplanned readmissions per 1,000 discharges				
Assistance Track intervention, mean	226	245	249	280
Assistance Track control, mean	229	262	264	300
Controlled difference			−15	−20
P-value (for controlled difference)			0.09	0.02
P-value (for difference in controlled differences)				0.70

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted using each beneficiary's eligibility fraction as a weight variable. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The controlled difference compares the intervention and control group means within each subpopulation; the p-value for the controlled difference tests whether the controlled difference is statistically significant; the p-value for the difference in controlled differences tests whether the subpopulation-specific controlled differences are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-19. Difference-in-Differences Results for Alignment Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—People Dually Eligible for Medicare and Medicaid

Outcome	Baseline		Overall	
	People Not Dually Eligible	Dually Eligible	People Not Dually Eligible	Dually Eligible
Beneficiary-level outcomes				
Alignment Track intervention, N	6,014	14,266	5,083	13,629
Assistance Track control, N	1,739	3,339	1,446	2,996
Total expenditures PBPM				
Alignment Track intervention, mean	$2,008	$2,412	$2,874	$3,407
Assistance Track control, mean	$2,080	$2,351	$2,947	$3,346
Difference-in-differences			−$252	−$96
P-value (for D-in-D)			0.30	0.69
P-value (for difference in D-in-D estimates)				0.34
ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	495	709	467	680
Assistance Track control, mean	451	629	426	603
Difference-in-differences			22	−41
P-value (for D-in-D)			0.42	0.41
P-value (for difference in D-in-D estimates)				0.14

Outcome	Baseline		Overall	
	People Not Dually Eligible	Dually Eligible	People Not Dually Eligible	Dually Eligible
Avoidable ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	231	341	198	303
Assistance Track control, mean	200	316	171	280
Difference-in-differences			12	-23
P-value (for D-in-D)			0.33	0.27
P-value (for difference in D-in-D estimates)				0.08
Inpatient admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	171	208	203	243
Assistance Track control, mean	177	220	210	257
Difference-in-differences			−8	−1
P-value (for D-in-D)			0.67	0.93
P-value (for difference in D-in-D estimates)				0.71
ACSC admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	36	47	44	55
Assistance Track control, mean	35	51	43	59
Difference-in-differences			−3	0
P-value (for D-in-D)			0.61	0.96
P-value (for difference in D-in-D estimates)				0.74
PCP visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,489	1,591	1,818	2,122
Assistance Track control, mean	1,357	1,700	1,658	2,268
Difference-in-differences			−149	−30
P-value (for D-in-D)			0.06	0.77
P-value (for difference in D-in-D estimates)				0.24
Specialist visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,726	1,783	1,764	1,874

Outcome	Baseline		Overall	
	People Not Dually Eligible	Dually Eligible	People Not Dually Eligible	Dually Eligible
Assistance Track control, mean	1,590	1,626	1,625	1,708
Difference-in-differences			−62	15
P-value (for D-in-D)			0.43	0.83
P-value (for difference in D-in-D estimates)				0.35
Discharge-level outcomes				
Alignment Track intervention, discharges	3,439	6,980	2,752	6,158
Assistance Track control, discharges	958	1,615	810	1,371
Unplanned readmissions per 1,000 discharges				
Alignment Track intervention, mean	214	245	253	280
Assistance Track control, mean	238	250	280	286
Difference-in-differences			5	−17
P-value (for D-in-D)			0.83	0.27
P-value (for difference in D-in-D estimates)				0.37

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; D-in-D = difference-in-differences; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable times a propensity score weight. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The difference-in-differences represents the difference in outcome changes between the intervention and comparison groups within each subpopulation; the p-value for the difference-in-differences tests whether the difference-in-differences estimate is statistically significant; the p-value for the difference in the difference-in-differences estimates tests whether the subpopulation-level D-in-D estimates are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-20. Difference-in-Differences Results for Alignment Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Enrolled in an Alternative Payment Model (APM)

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Beneficiary-level outcomes				
Alignment Track intervention, N	13,128	7,152	12,147	6,565
Assistance Track control, N	3,247	1,831	2,749	1,693
Total expenditures PBPM				
Alignment Track intervention, mean	$2,304	$2,270	$3,238	$3,263
Assistance Track control, mean	$2,295	$2,221	$3,228	$3,215
Difference-in-differences			−$17	−$327
P-value (for D-in-D)			0.95	0.11
P-value (for difference in D-in-D estimates)				0.11
ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	678	633	636	628
Assistance Track control, mean	576	598	540	593
Difference-in-differences			29	-96
P-value (for D-in-D)			0.52	0.06
P-value (for difference in D-in-D estimates)				0.05
Avoidable ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	324	304	283	276
Assistance Track control, mean	285	292	248	265
Difference-in-differences			3	−37

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
P-value (for D-in-D)			0.91	0.08
P-value (for difference in D-in-D estimates)				0.25
Inpatient admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	196	200	229	236
Assistance Track control, mean	206	209	240	247
Difference-in-differences			3	−12
P-value (for D-in-D)			0.87	0.37
P-value (for difference in D-in-D estimates)				0.42
ACSC admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	44	44	50	53
Assistance Track control, mean	46	47	53	56
Difference-in-differences			4	-8
P-value (for D-in-D)			0.54	0.19
P-value (for difference in D-in-D estimates)				0.14
PCP visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,460	1,680	1,938	2,144
Assistance Track control, mean	1,528	1,647	2,028	2,102
Difference-in-differences			−58	−90
P-value (for D-in-D)			0.59	0.44
P-value (for difference in D-in-D estimates)				0.80

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Specialist visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,713	1,830	1,812	1,886
Assistance Track control, mean	1,464	1,783	1,547	1,838
Difference-in-differences			10	−48
P-value (for difference in D-in-D estimates)			0.89	0.45
P-value (for difference in D-in-D estimates)				0.34
Discharge-level outcomes				
Alignment Track intervention, discharges	6,034	4,385	5,268	3,642
Assistance Track control, discharges	1,421	1,152	1,217	964
Unplanned readmissions per 1,000 discharges				
Alignment Track intervention, mean	241	233	277	268
Assistance Track control, mean	232	265	267	303
Difference-in-differences			−12	−12
P-value (for D-in-D)			0.53	0.50
P-value (for difference in D-in-D estimates)				0.98

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; D-in-D = difference-in-differences; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable times a propensity score weight. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The difference-in-differences represents the difference in outcome changes between the intervention and comparison groups within each subpopulation; the p-value for the difference-in-differences tests whether the difference-in-differences estimate is statistically significant; the p-value for the difference in the difference-in-differences estimates tests whether the subpopulation-level D-in-D estimates are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-21. Difference-in-Differences Results for Alignment Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Enrolled in an Alternative Payment Model (APM), Among Beneficiaries Without Pulmonary Disease or Diabetes

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Beneficiary-level outcomes				
Alignment Track intervention, N	6,274	2,117	6,158	1,912
Assistance Track control, N	1,596	504	1,378	455
Total expenditures PBPM				
Alignment Track intervention, mean	$1,515	$1,474	$2,466	$2,329
Assistance Track control, mean	$1,322	$1,418	$2,273	$2,273
Difference-in-differences			−$50	−$361
P-value (for D-in-D)			0.87	0.10
P-value (for difference in D-in-D estimates)				0.13
ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	592	559	558	509
Assistance Track control, mean	505	495	476	451
Difference-in-differences			51	1
P-value (for D-in-D)			0.54	0.98
P-value (for difference in D-in-D estimates)				0.64
Avoidable ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	257	245	228	203
Assistance Track control, mean	247	208	219	172
Difference-in-differences			12	13

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
P-value (for D-in-D)			0.76	0.36
P-value (for difference in D-in-D estimates)				0.99
Inpatient admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	126	108	166	143
Assistance Track control, mean	130	122	170	162
Difference-in-differences			10	-2
P-value (for D-in-D)			0.60	0.91
P-value (for difference in D-in-D estimates)				0.54
ACSC admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	14	9	22	15
Assistance Track control, mean	19	13	30	23
Difference-in-differences			9	2
P-value (for D-in-D)			0.17	0.54
P-value (for difference in D-in-D estimates)				0.35
PCP visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,109	1,317	1,669	1,782
Assistance Track control, mean	1,139	1,226	1,713	1,659
Difference-in-differences			−222	−289
P-value (for D-in-D)			0.13	0.05
P-value (for difference in D-in-D estimates)				0.58

Outcome	Baseline		Overall	
	People Not Enrolled in an APM	People Enrolled in an APM	People Not Enrolled in an APM	People Enrolled in an APM
Specialist visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,351	1,447	1,536	1,594
Assistance Track control, mean	1,109	1,309	1,260	1,442
Difference-in-differences			−37	−171
P-value (for D-in-D)			0.77	0.14
P-value (for difference in D-in-D estimates)				0.13
Discharge-level outcomes				
Alignment Track intervention, discharges	1,852	970	1,978	846
Assistance Track control, discharges	452	239	435	220
Unplanned readmissions per 1,000 discharges				
Alignment Track intervention, mean	204	152	248	171
Assistance Track control, mean	183	242	224	268
Difference-in-differences			1	71
P-value (for D-in-D)			0.98	<0.01
P-value (for difference in D-in-D estimates)				0.08

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; D-in-D = difference-in-differences; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable times a propensity score weight. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The difference-in-differences represents the difference in outcome changes between the intervention and comparison groups within each subpopulation; the p-value for the difference-in-differences tests whether the difference-in-differences estimate is statistically significant; the p-value for the difference in the difference-in-differences estimates tests whether the subpopulation-level D-in-D estimates are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Exhibit B-22. Difference-in-Differences Results for Alignment Track Navigation-Eligible FFS Medicare Beneficiaries and Assistance Track Control Group FFS Medicare Beneficiaries by Subpopulation—Transportation Need

Outcome	Baseline		Overall	
	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need
Beneficiary-level outcomes				
Alignment Track intervention, N	10,991	9,289	10,086	8,626
Assistance Track control, N	2,641	2,437	2,277	2,165
Total expenditures PBPM				
Alignment Track intervention, mean	$2,151	$2,454	$3,025	$3,514
Assistance Track control, mean	$2,083	$2,438	$2,958	$3,498
Difference-in-differences			−$65	−$232
P-value (for D-in-D)			0.73	0.43
P-value (for difference in D-in-D estimates)				0.43
ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	630	691	605	662
Assistance Track control, mean	546	622	525	596
Difference-in-differences			1	−52
P-value (for D-in-D)			0.98	0.32

Outcome	Baseline		Overall	
	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need
P-value (for difference in D-in-D estimates)				0.37
Avoidable ED visits per 1,000 beneficiaries				
Alignment Track intervention, mean	303	330	267	294
Assistance Track control, mean	275	300	242	267
Difference-in-differences			5	−36
P-value (for D-in-D)			0.78	0.13
P-value (for difference in D-in-D estimates)				0.12
Inpatient admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	180	218	210	257
Assistance Track control, mean	191	222	223	263
Difference-in-differences			3	−11
P-value (for D-in-D)			0.80	0.60
P-value (for difference in D-in-D estimates)				0.41
ACSC admissions per 1,000 beneficiaries				
Alignment Track intervention, mean	39	49	45	59
Assistance Track control, mean	44	49	50	59
Difference-in-differences			3	−5
P-value (for D-in-D)			0.47	0.52
P-value (for difference in D-in-D estimates)				0.22
PCP visits per 1,000 beneficiaries				
Alignment Track intervention, mean	1,570	1,547	1,987	2,075

Outcome	Baseline		Overall	
	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need	Did Not Screen Positive for Transportation Need	Screened Positive for Transportation Need
Assistance Track control, mean	1,591	1,577	2,014	2,115
Difference-in-differences			−114	−20
P-value (for D-in-D)			0.22	0.83
P-value (for difference in D-in-D estimates)				0.10
Specialist visits per 1,000 beneficiaries				
Alignment Track intervention, mean			1,865	1,812
Assistance Track control, mean			1,666	1,693
Difference-in-differences			24	−48
P-value (for D-in-D)			0.70	0.53
P-value (for difference in D-in-D estimates)				0.27
Discharge-level outcomes				
Alignment Track intervention, discharges	5,322	5,097	4,535	4,375
Assistance Track control, discharges	1,248	1,325	1,063	1,118
Unplanned readmissions per 1,000 discharges				
Alignment Track intervention, mean	227	247	261	284
Assistance Track control, mean	237	256	273	294
Difference-in-differences			8	−27
P-value (for D-in-D)			0.65	0.09
P-value (for difference in D-in-D estimates)				0.08

Source: RTI analysis of Chronic Conditions Data Warehouse Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; D-in-D = difference-in-differences; ED = emergency department; FFS = fee-for-service; PBPM = per beneficiary per month; PCP = primary care provider.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable times a propensity score weight. The total expenditure PBPM ($) impact was estimated using a weighted ordinary least squares model. The inpatient admission, ACSC admission, ED visit, avoidable ED visit, PCP visit, and specialist visit outcomes were estimated using a Poisson specification. The unplanned readmission outcome was estimated using a logistic specification. The difference-in-differences represents the difference in outcome changes between the intervention and comparison groups within each subpopulation; the p-value for the difference-in-differences tests whether the difference-in-differences estimate is statistically significant; the p-value for the difference in the difference-in-differences estimates tests whether the subpopulation-level D-in-D estimates are statistically significantly different from each other. Sample sizes represent the total number of unique beneficiaries with complete covariate and outcome data observed during the post-screening period or total number of discharges during the post-screening period.

Combined Medicare Advantage and FFS Medicare

Exhibit B-23. Baseline Quality of Care for Combined Analysis of Medicare Advantage and FFS Medicare Beneficiaries

Measure/Year	Assistance Track Control Group				Assistance Track Intervention Group				Alignment Track Intervention Group			
	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value
Admissions per 1,000 beneficiaries												
3 years before AHC screening	6,232	557	1,554	Ref	15,235	527	1,294	0.19	22,840	561	1,390	0.84
2 years before AHC screening	6,602	620	1,524	Ref	16,095	614	1,450	0.79	24,501	648	1,510	0.18
1 year before AHC screening	7,027	1,059	1,921	Ref	17,144	1,037	1,872	0.40	26,244	1,024	1,773	0.16
All 3 baseline years	19,861	756	1,699	Ref	48,474	736	1,585	0.16	73,585	755	1,588	0.98
ACSC admissions per 1,000 beneficiaries												
3 years before AHC screening	6,232	49	271	Ref	15,235	52	289	0.35	22,840	58	336	0.03
2 years before AHC screening	6,602	61	305	Ref	16,095	62	328	0.86	24,501	58	324	0.49
1 year before AHC screening	7,027	96	386	Ref	17,144	98	418	0.72	26,244	87	392	0.09
All 3 baseline years	19,861	69	327	Ref	48,474	72	352	0.45	73,585	68	354	0.66
All-cause readmissions per 1,000 discharges												
3 years before AHC screening	3,716	263	440	Ref	8,648	238	426	< 0.01	14,349	256	437	0.39
2 years before AHC screening	4,406	263	440	Ref	10,590	254	435	0.26	17,321	270	444	0.35
1 year before AHC screening	7,748	303	459	Ref	18,537	291	454	0.05	28,892	294	456	0.16
All 3 baseline years	15,870	282	450	Ref	37,775	268	443	< 0.01	60,562	278	448	0.31
ED visits per 1,000 beneficiaries												
3 years before AHC screening	6,232	1,821	4,122	Ref	15,235	1,827	4,332	0.93	22,840	2,265	5,606	< 0.01
2 years before AHC screening	6,602	1,936	4,675	Ref	16,095	1,907	4,374	0.67	24,501	2,349	5,606	< 0.01
1 year before AHC screening	7,027	2,910	5,735	Ref	17,144	2,750	5,257	0.04	26,244	3,285	6,352	< 0.01
All 3 baseline years	19,861	2,245	4,948	Ref	48,474	2,180	4,712	0.11	73,585	2,657	5,902	< 0.01

Measure/Year	Assistance Track Control Group				Assistance Track Intervention Group				Alignment Track Intervention Group			
	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value	N	Mean	Std Dev	P-Value
Avoidable ED visits per 1,000 beneficiaries												
3 years before AHC screening	6,232	901	2,316	Ref	15,235	927	2,426	0.47	22,840	1,097	2,948	< 0.01
2 years before AHC screening	6,602	957	2,632	Ref	16,095	944	2,333	0.73	24,501	1,124	2,949	< 0.01
1 year before AHC screening	7,027	1,352	2,848	Ref	17,144	1,298	2,939	0.18	26,244	1,495	3,352	< 0.01
All 3 baseline years	19,861	1,080	2,626	Ref	48,474	1,064	2,596	0.47	73,585	1,248	3,104	< 0.01
PCP visits per 1,000 beneficiaries												
3 years before AHC screening	6,232	5,231	6,114	Ref	15,235	5,220	6,110	0.90	22,840	4,575	5,881	< 0.01
2 years before AHC screening	6,602	5,373	6,230	Ref	16,095	5,355	6,257	0.84	24,501	4,582	6,073	< 0.01
1 year before AHC screening	7,027	6,055	6,607	Ref	17,144	6,028	6,689	0.77	26,244	5,129	6,531	< 0.01
All 3 baseline years	19,861	5,570	6,341	Ref	48,474	5,550	6,378	0.71	73,585	4,775	6,189	< 0.01
Specialist visits per 1,000 beneficiaries												
3 years before AHC screening	6,232	4,471	5,619	Ref	15,235	4,572	5,691	0.23	22,840	4,798	5,823	< 0.01
2 years before AHC screening	6,602	4,766	5,869	Ref	16,095	4,778	5,905	0.88	24,501	5,081	6,111	< 0.01
1 year before AHC screening	7,027	5,453	6,265	Ref	17,144	5,471	6,497	0.84	26,244	5,751	6,540	< 0.01
All 3 baseline years	19,861	4,917	5,951	Ref	48,474	4,958	6,069	0.41	73,585	5,233	6,195	< 0.01

Source: RTI analysis of Integrated Data Repository Medicare Advantage encounter data and FFS Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; FFS = fee-for-service; N = number of beneficiaries for all outcomes except unplanned readmission, where it refers to number of discharges; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in combined Medicare Advantage and Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the Assistance Track control group as the reference comparator.

Exhibit B-24. Baseline Quality of Care by AHC Eligibility Criteria for Combined Analysis of Medicare Advantage and FFS Medicare Beneficiaries

Description	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Unique beneficiaries	192,652	205,927	219,702	219,812	80,599	84,019	87,437	87,510	41,776	44,882	48,066	48,144	45,909	48,799	51,773	51,883
Admissions per 1,000 beneficiaries	164	167	246	195	372	432	932	588	200	191	220	204	552	637	1,040	754
Std dev	554	565	670	603	963	1,039	1,434	1,198	629	631	643	635	1,388	1,499	1,838	1,611
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
ACSC admissions per 1,000 beneficiaries	19	19	26	21	46	52	106	69	22	18	20	20	55	60	92	70
Std dev	159	156	180	166	251	272	394	316	178	158	160	165	313	323	401	350
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.67	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
All-cause readmissions per 1,000 discharges	30,425	33,589	52,261	116,275	30,905	37,477	82,173	150,555	8,651	8,890	10,995	28,536	27,127	32,883	56,051	116,061
Mean	121	123	138	129	185	197	240	218	149	138	140	142	253	265	295	277
Std dev	326	328	345	335	388	397	427	413	356	345	347	349	435	442	456	447
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
ED visits per 1,000 beneficiaries	359	343	444	385	927	1,004	1,812	1,261	594	533	567	564	2,060	2,151	3,063	2,447
Std dev	1,075	992	1,098	1,058	2,407	2,543	2,855	2,647	1,500	1,418	1,633	1,524	5,043	5,106	5,943	5,419
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref

Description	Non-Navigation-Eligible Beneficiaries												Navigation-Eligible Beneficiaries			
	Self-Reported < 2 ED Visits and No Needs				Self-Reported ≥ 2 ED Visits and No Needs				Self-Reported < 2 ED Visits and ≥ 1 Need				Self-Reported ≥ 2 ED Visits and ≥ 1 Need			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Avoidable ED visits per 1,000 beneficiaries	158	147	176	161	437	459	772	561	281	243	246	256	1,014	1,044	1,413	1,166
Std dev	573	526	573	558	1,302	1,331	1,518	1,399	797	728	783	769	2,710	2,716	3,157	2,885
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
PCP visits per 1,000 beneficiaries	3,453	3,438	3,668	3,526	4,819	4,975	5,978	5,276	3,628	3,580	3,738	3,652	4,888	4,958	5,563	5,151
Std dev	4,121	4,151	4,331	4,210	5,523	5,641	6,422	5,913	4,513	4,483	4,550	4,517	6,001	6,167	6,607	6,284
P-value	< 0.01	< 0.01	< 0.01	< 0.01	0.04	0.61	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref
Specialist visits per 1,000 beneficiaries	3,056	3,112	3,352	3,182	4,143	4,393	5,294	4,628	3,555	3,633	3,858	3,691	4,678	4,942	5,628	5,103
Std dev	4,096	4,146	4,358	4,212	5,115	5,351	6,043	5,554	4,663	4,741	4,874	4,768	5,752	6,019	6,503	6,129
P-value	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	Ref	Ref	Ref	Ref

Source: RTI analysis of Integrated Data Repository Medicare Advantage encounter data and FFS Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; FFS = fee-for-service; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in combined Medicare Advantage and Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the Assistance Track control group as the reference comparator.

Exhibit B-25. Baseline Expenditures and Quality of Care by Number of Core Needs for Combined Analysis of Medicare Advantage and FFS Medicare Beneficiaries

Description	1 Core Need Reported				2 Core Needs Reported				3 or More Core Needs Reported			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
Unique beneficiaries	23,012	24,290	25,629	25,671	12,797	13,703	14,595	14,631	10,100	10,806	11,549	11,581
Admissions per 1,000 beneficiaries	500	576	997	701	577	661	1,044	772	640	747	1,131	851
Std dev	1,231	1,334	1,717	1,469	1,501	1,533	1,808	1,640	1,565	1,777	2,113	1,857
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
ACSC admissions per 1,000 beneficiaries	54	57	97	70	54	59	84	66	59	69	91	74
Std dev	297	305	405	342	315	320	369	337	345	365	429	383
P-value	Ref	Ref	Ref	Ref	0.98	0.62	< 0.01	0.28	0.23	0.03	0.15	0.10
All-cause readmissions per 1,000 discharges	12,138	14,557	26,148	52,843	7,794	9,525	15,778	33,097	7,195	8,801	14,125	30,121
Mean	231	240	273	254	251	273	294	278	291	299	337	315
Std dev	421	427	446	435	434	445	456	448	454	458	473	464
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
ED visits per 1,000 beneficiaries	1,656	1,746	2,559	2,005	2,211	2,265	3,171	2,572	2,796	2,929	4,055	3,290
Std dev	4,328	4,405	4,619	4,477	5,247	5,086	5,913	5,462	6,103	6,364	8,098	6,984
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Avoidable ED visits per 1,000 beneficiaries	819	850	1,178	956	1,098	1,119	1,478	1,241	1,356	1,392	1,858	1,548
Std dev	2,326	2,347	2,480	2,394	2,859	2,800	3,100	2,934	3,245	3,291	4,319	3,686
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCP visits per 1,000 beneficiaries	5,049	5,141	5,840	5,359	4,780	4,893	5,480	5,068	4,658	4,622	5,049	4,786
Std dev	5,934	6,136	6,626	6,262	5,986	6,192	6,711	6,329	6,163	6,188	6,395	6,258

Description	1 Core Need Reported				2 Core Needs Reported				3 or More Core Needs Reported			
	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years	3 Years Before AHC Screening	2 Years Before AHC Screening	1 Year Before AHC Screening	All Baseline Years
P-value	Ref	Ref	Ref	Ref	< 0.01	< 0.01	< 0.01	< 0.01	0.13	< 0.01	< 0.01	< 0.01
Specialist visits per 1,000 beneficiaries	4,581	4,863	5,599	5,034	4,786	5,029	5,689	5,189	4,763	5,011	5,615	5,150
Std dev	5,571	5,895	6,412	6,001	5,853	6,058	6,470	6,159	6,021	6,244	6,743	6,371
P-value	Ref	Ref	Ref	Ref	< 0.01	0.01	0.18	0.01	0.77	0.83	0.37	0.62

Source: RTI analysis of Integrated Data Repository Medicare Advantage encounter data and FFS Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; AHC = Accountable Health Communities; ED = emergency department; FFS = fee-for-service; PCP = primary care provider; Ref = reference; Std Dev = standard deviation.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in combined Medicare Advantage and Medicare FFS analyses. Except for unplanned readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. P-values were calculated using the Assistance Track control group as the reference comparator.

Exhibit B-26. Regression-Adjusted Comparison of Post-screening Means for Combined Analysis of Medicare Advantage and FFS Medicare Beneficiaries in the Assistance Track and Assistance Track Control Group

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
Unique number of beneficiaries	15,535	6,364			
ED visits per 1,000 beneficiaries					
Over 3-year baseline	545	568	−26	−5%	0.10
1 to 12 months after screening	568	578	−10	−2%	0.20
13 to 24 months after screening	516	538	−21	−4%	0.04
25 to 36 months after screening	509	548	−38	−7%	0.01
37 to 48 months after screening	507	529	−22	−4%	0.11
Overall	530	552	−21	−4%	0.01
Avoidable ED visits per 1,000 beneficiaries					
Over 3-year baseline	246	261	−17	−6%	0.12
1 to 12 months after screening	259	264	−5	−2%	0.32
13 to 24 months after screening	234	240	−6	−2%	0.25
25 to 36 months after screening	232	249	−16	−6%	0.04
37 to 48 months after screening	222	242	−20	−8%	0.05
Overall	240	250	−10	−4%	0.02
Inpatient admissions per 1,000 beneficiaries					
Over 3-year baseline	211	219	−9	−4%	0.36
1 to 12 months after screening	225	230	−5	−2%	0.24
13 to 24 months after screening	191	194	−3	−1%	0.49
25 to 36 months after screening	175	176	−1	−0.5%	0.85
37 to 48 months after screening	171	183	−13	−7%	0.11
Overall	195	200	−4	−2%	0.12
ACSC admissions per 1,0000 beneficiaries					
Over 3-year baseline	19	19	0.02	0.1%	0.99
1 to 12 months after screening	20	22	−1.9	−8%	0.20
13 to 24 months after screening	19	18	0.4	2%	0.78
25 to 36 months after screening	17	15	2	13%	0.20
37 to 48 months after screening	14	16	−3	−16%	0.22
Overall	18	18	−0.3	−2%	0.67
PCP visits per 1,0000 beneficiaries					
Over 3-year baseline	1,364	1,382	−19	−1%	0.44

Outcome	(1) Intervention Group Adjusted Mean	(2) Control Group Adjusted Mean	Difference Between (2) and (1)	% Difference Between (2) and (1)	P-Value for Difference
1 to 12 months after screening	1,506	1,526	−20	−1%	0.12
13 to 24 months after screening	1,370	1,368	1	0.1%	0.89
25 to 36 months after screening	1,372	1,372	−0.4	−0.03%	0.98
37 to 48 months after screening	1,333	1,342	−10	−1%	0.58
Overall	1,412	1,419	−8	−1%	0.26
Specialist visits per 1,0000 beneficiaries					
Over 3-year baseline	1,272	1,273	−3	−0.3%	0.89
1 to 12 months after screening	1,513	1,519	−6	−0.4%	0.55
13 to 24 months after screening	1,494	1,538	−43	−3%	0.02
25 to 36 months after screening	1,562	1,588	−25	−2%	0.13
37 to 48 months after screening	1,630	1,712	−78	−5%	0.02
Overall	1,532	1,562	−30	−2%	0.01
Unplanned readmissions per 1,000 discharges					
Number of discharges	35,298	14,574			
Over 3-year baseline	274	302	−29	−10%	0.14
1 to 12 months after screening	278	301	−23	−8%	0.05
13 to 24 months after screening	271	291	−20	−7%	0.09
25 to 36 months after screening	265	282	−17	−6%	0.18
37 to 48 months after screening	255	260	−5	−2%	0.72
Overall	271	290	−19	−7%	0.02

Source: RTI analysis of Integrated Data Repository Medicare Advantage encounter data and FFS Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in combined Medicare Advantage and Medicare FFS analyses. Except for all-cause readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. The inpatient admission, ACSC admission, ED visit, and PCP visit outcomes were estimated using a Poisson specification. The all-cause readmission outcome was estimated using a logistic specification. P-values compare the intervention group means with the control group mean.

Exhibit B-27. Difference-in-Differences Results for Combined Analysis of Navigation-Eligible Medicare Advantage and FFS Medicare Beneficiaries in the Alignment Track and Assistance Track Control Group

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
Unique number of beneficiaries	20,228	5,464	22,907	6,364			
ED visits per 1,000 beneficiaries							
1 to 12 months after screening	678	589	709	600	9	1%	0.71
13 to 24 months after screening	678	589	651	581	−26	−4%	0.35
25 to 36 months after screening	678	589	650	605	−53	−8%	0.14
37 to 48 months after screening	678	589	640	599	−55	−8%	0.24
Overall	678	589	670	595	−22	−3%	0.18
Avoidable ED visits per 1,000 beneficiaries							
1 to 12 months after screening	300	275	308	279	0.3	0.1%	0.98
13 to 24 months after screening	300	275	288	268	−7	−2%	0.45
25 to 36 months after screening	300	275	286	282	−23	−8%	0.12
37 to 48 months after screening	300	275	281	284	−30	−10%	0.16
Overall	300	275	295	276	−10	−3%	0.14
Inpatient admissions per 1,000 beneficiaries							
1 to 12 months after screening	221	222	226	233	−10	−4%	0.35
13 to 24 months after screening	221	222	189	198	−11	−5%	0.38
25 to 36 months after screening	221	222	174	189	−17	−8%	0.26
37 to 48 months after screening	221	222	166	198	−36	−16%	0.11
Overall	221	222	198	211	−15	−7%	0.08
ACSC admissions per 1,0000 beneficiaries							
1 to 12 months after screening	18	17	18	19	−2	−14%	0.20
13 to 24 months after screening	18	17	16	16	−1	−7%	0.49
25 to 36 months after screening	18	17	15	15	−2	−10%	0.37
37 to 48 months after screening	18	17	15	16	−3	−17%	0.34
Overall	18	17	17	17	−2	−11%	0.11
PCP visits per 1,0000 beneficiaries							
1 to 12 months after screening	1,233	1,325	1,255	1,471	−117	−9%	0.03
13 to 24 months after screening	1,233	1,325	1,171	1,325	−68	−6%	0.18
25 to 36 months after screening	1,233	1,325	1,172	1,330	−73	−6%	0.21

Outcome	Baseline Intervention Group Adjusted Mean	Baseline Control Group Adjusted Mean	Post-period Intervention Group Adjusted Mean	Post-period Control Group Adjusted Mean	Difference-in-Differences	% Change	P-Value for Difference-in-Differences
37 to 48 months after screening	1,233	1,325	1,144	1,345	−119	−10%	0.19
Overall	1,233	1,325	1,210	1,399	−97	−8%	0.02
Specialist visits per 1,0000 beneficiaries							
1 to 12 months after screening	1,382	1,365	1,551	1,551	−24	−2%	0.42
13 to 24 months after screening	1,382	1,365	1,511	1,555	−68	−5%	0.11
25 to 36 months after screening	1,382	1,365	1,560	1,563	−28	−2%	0.53
37 to 48 months after screening	1,382	1,365	1,566	1,613	−76	−5%	0.24
Overall	1,382	1,365	1,542	1,561	−44	−3%	0.08
Unplanned readmissions per 1,000 discharges							
Number of discharges	28,546	6,854	50,915	14,574			
1 to 12 months after screening	284	319	305	319	17	6%	0.15
13 to 24 months after screening	284	319	293	307	16	6%	0.24
25 to 36 months after screening	284	319	289	308	11	4%	0.50
37 to 48 months after screening	284	319	284	280	32	11%	0.13
Overall	284	319	296	308	18	6%	0.05

Source: RTI analysis of Integrated Data Repository Medicare Advantage encounter data and FFS Medicare claims data, May 2015–December 2023.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in combined Medicare Advantage and Medicare FFS analyses. Except for all-cause readmissions, all averages were weighted, using each beneficiary's eligibility fraction as a weight variable. The inpatient admission, ACSC admission, ED visit, and PCP visit outcomes were estimated using a Poisson specification. The all-cause readmission outcome was estimated using a logistic specification. P-values compare the intervention group means with the control group mean.

Savings

Exhibit B-28. Calculations Used in Analysis of Gross Savings, Funding Costs, and Net Savings

	Number of Beneficiary Months [1]	Estimated Savings (PBPM) [2]	Estimated Savings or Funding Costs (Aggregate) [1 x 2]	90% Confidence Interval
Gross Savings				
Medicaid: Assistance Track	1,044,832	$45	$47,017,440	$13,773,570 to $80,261,310
Medicaid: Alignment Track	2,366,987	$90	$213,028,830	$19,641,127 to $406,416,533
Medicaid: Subtotal	N/A	N/A	$260,046,270	$63,822,014 to $456,270,526
FFS Medicare: Assistance Track	261,012	$111	$28,972,332	$4,657,985 to $53,286,679
FFS Medicare: Alignment Track	434,903	$86	$37,401,658	−$16,077,966 to $90,881,282
FFS Medicare: Subtotal	N/A	N/A	$66,373,990	$7,626,584 to $125,121,396
Total Gross Savings (Medicaid Subtotal + FFS Medicare Subtotal)	**N/A**	**N/A**	**$326,420,260**	**$121,590,535 to $531,249,985**
Funding Costs				
Assistance Track	N/A	N/A	$24,480,112	N/A
Alignment Track	N/A	N/A	$82,307,398	N/A
Total Funding Costs	**N/A**	**N/A**	**$106,787,510**	**N/A**
Savings Net of AHC Funding Costs				
Assistance Track (Medicaid + FFS Medicare Savings - Assistance Track Funding Costs)	N/A	N/A	$51,509,660	$10,320,877 to $92,698,443
Alignment Track (Medicaid + FFS Medicare Savings - Alignment Track Funding Costs)	N/A	N/A	$168,123,090	−$32,523,487 to $368,769,667
Total Savings Net of AHC Funding Costs	**N/A**	**N/A**	**$219,632,750**	**$14,802,174 to $424,463,325**

Source: RTI analysis of USA Spending data and Medicaid and FFS Medicare claims data from May 2015–December 2023.
Definitions: FFS = fee-for-service; PBPM = per beneficiary per month.

Appendix C: Covariate Balance and Baseline Trends

This appendix provides additional detail to support the analytic approach used to estimate intervention impacts in the Assistance and Alignment Tracks.

For the Assistance Track, we present baseline covariate balance statistics that show that beneficiaries randomized to the intervention group are nearly identical to beneficiaries randomized to the control group in terms of sociodemographic and community-level characteristics. This finding is expected and supports comparing post-screening outcomes across the intervention and control groups to measure Accountable Health Communities (AHC) Model impacts for the Assistance Track.

Because the Alignment Track does not have a randomized control group, we reused the Assistance Track control group as a comparison group in a difference-in-differences (D-in-D) design for impact analyses. This appendix describes baseline trends for study outcomes for Medicaid and fee-for-service (FFS) Medicare beneficiaries participating in the Alignment Track intervention and for beneficiaries in the Assistance Track control group. The D-in-D specification requires parallel trends for the intervention and comparison groups during the prescreening baseline period.

This appendix also describes results of propensity score analyses used to balance the Alignment Track intervention group with the Assistance Track control group for the Medicaid, FFS Medicare, and combined FFS Medicare and Medicare Advantage (MA) populations. Although reusing the Assistance Track control group ensures that the comparison group meets the same AHC Model eligibility criteria as the Alignment Track intervention group, it does not guarantee that sociodemographic and community characteristics are similar. The propensity score analysis addresses these differences and improves our confidence in the reliability of the impact estimates in this report.

Comparison of Baseline Sociodemographic and Community Characteristics in the Assistance Track

Baseline Sociodemographic and Community Characteristics Among Medicaid Beneficiaries and FFS Medicare Beneficiaries

Exhibit C-1 shows that Medicaid beneficiaries in the Assistance Track intervention group were nearly indistinguishable from Medicaid beneficiaries in the Assistance Track control group for all sociodemographic and county- or community-level characteristics observed.

Similar to the Medicaid population, FFS Medicare beneficiaries in the Assistance Track intervention group were nearly indistinguishable from FFS Medicare beneficiaries in the Assistance Track control group for all sociodemographic and county- or community-level characteristics observed (**Exhibit C-2**).

Exhibit C-1. Baseline Descriptive Statistics for Medicaid Beneficiaries in the Assistance Track Intervention and Control Groups, Year Before Screening

Variable	Intervention Group (N = 35,032)	Control Group (N = 15,215)
Sociodemographic characteristics		
Female	63%	64%
Number of needs	2	2
Chronic Illness and Disability Payment System risk score	1	1
Number of chronic conditions	1	1
Age (mean)	28	28
Child (< 19 years)	29%	29%
Enrolled because of disability	14%	14%
Enrolled in managed care	85%	86%
Enrolled in the Children's Health Insurance Program	3%	3%
Number of months enrolled in Medicaid	11	11
County- or community-level characteristics		
People residing in a rural area	14%	14%
People residing in a mental health professional shortage area	29%	29%
Hospital beds per 1,000 population	4	4
People < 65 years of age without health insurance	11%	11%
Psychiatrists per 1,000 population	0.1	0.1
Community mental health centers per 100,000 population	<.01	<.01
People 16 years and older who are unemployed	4%	5%
Adults in fair/poor health	18%	18%
Primary care physician-to-population ratio	8	8
Median income	$57,983	$58,229
People in poverty	15%	15%
Social Deprivation Index score	60	60
Social service provider density	133	130
Food environment index	8	8
Severe housing index	17	17
COVID-19 pandemic vulnerability index	0.2	0.2

Note: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Table of descriptive statistics is incomplete. Complete table is available upon request.

Exhibit C-2. Baseline Descriptive Statistics for FFS Medicare Beneficiaries in the Assistance Track Intervention and Control Groups, Year Before Screening

Variable	Intervention Group (N = 10,473)	Control Group (N = 4,315)
Sociodemographic characteristics		
Female	61%	62%
Number of needs	2	2
HCC risk score	2	2
Number of chronic conditions	7	7
Age (mean)	63	62
Child (< 19 years)	<.01%	<.01%
Age < 65 years	50%	50%
Dually eligible for Medicaid	57%	58%
Enrolled because of disability	61%	61%
Enrolled because of end-stage renal disease	3%	3%
Number of months enrolled in Medicare	10	10
Enrolled in MSSP ACO	36.9%	37.9%
Enrolled in NGACO	3.8%	3.7%
Enrolled in CPC+	2.6%	2.9%
Enrolled in MD PCP	0.4%	0.4%
Enrolled in any APM above	41.3%	42.2%
County- or community-level characteristics		
People residing in a rural area	22%	22%
Hospital beds per 1,000 population	3	3
People < 65 years of age without health insurance	10%	10%
People residing in a mental health professional shortage area	36%	36%
Psychiatrists per 1,000 population	0.1	0.1
Community mental health centers per 100,000 population	<.01	<.01
People 16 years and older who are unemployed	5%	5%
Adults in fair/poor health	17%	17%
Primary care physician-to-population ratio	8	8
Median income	$59,785	$60,211
People in poverty	15%	15%
Social Deprivation Index score	53	53
Social service provider density	129	132
Food environment index	8	8
Severe housing index	16	17
COVID-19 pandemic vulnerability index	0.1	0.1

Definitions: HCC = Hierarchical Condition Category.
Note: Table of descriptive statistics is incomplete. Complete table is available upon request.

Assessment of Parallel Baseline Trends for the Alignment Track Impact Analysis

D-in-D models were used to measure impacts for the Alignment Track. D-in-D models assume that the outcomes for the intervention and comparison groups follow a similar growth trend during the baseline period. We investigated whether trends in the baseline period, which is defined at the beneficiary level as the 3 years before screening, satisfy this trend assumption.

To test the assumption that the Alignment Track intervention group and the comparison group had parallel baseline trends, we estimated a model with a linear trend during the baseline period (equation C.1) and tested whether this trend differed for Alignment Track beneficiaries relative to comparison group beneficiaries.

$$Y_{ijt} = \alpha_0 + \beta_1 I_i + \alpha_1 t + \beta_2 I_i * t + \lambda X_{ij} + \varepsilon_{ijt}, \quad \text{(C.1)}$$

where

Y_{ijt}	=	a performance measure (e.g., total per beneficiary per month [PBPM] cost per quarter) for the *i*-th beneficiary in the *j*-th group (Alignment Track or comparison) in quarter *t*
i	=	a 0,1 indicator (0 = comparison group, 1 = Alignment Track)
X	=	a vector of beneficiary and county characteristics
t	=	a linear time trend ranging from 1 to 12
ε_{ijt}	=	error term

In equation C.1, the linear time trend in the comparison group is $\alpha_1 t$, whereas for Alignment Track beneficiaries ($i = 1$), it is $(\alpha_1 + \beta_2) * t$. Hence, β_2 measures the difference in linear trends, and the *t*-statistic for this coefficient can be used to test the null hypothesis of equal baseline trends ($\beta_2 = 0$). In other words, rejecting the null hypothesis would suggest that the assumption of equal trends underlying our D-in-D outcome models is not met.

Baseline Trend Results for Medicaid and FFS Medicare

We estimated baseline trends for the following outcomes:

- Total expenditures
- Count of inpatient admissions
- Count of ED visits
- Count of ambulatory care sensitive condition (ACSC) inpatient admissions
- Probability of an unplanned readmission within 30 days after an inpatient discharge
- Count of visits to a primary care provider (PCP)
- Count of visits to a specialist
- Avoidable ED visits

Among most core outcomes (i.e., total expenditures, ED visits, and readmissions), we found no statistically significant differences at the p-value < 0.05 or p-value < 0.10 level in baseline trends. However, baseline trends for inpatient admissions and PCP visits were significantly different for Medicaid beneficiaries (**Exhibit C-3**). Because

there were relatively few outcomes with differences in baseline trends, we modeled all outcomes assuming parallel trends. Sensitivity analyses, which included a baseline linear time trend interacted with the intervention indicator to account for nonparallel trends, also suggest that despite evidence of nonparallel trends, results are similar regardless of whether we assume parallel trends or not.

Exhibit C-3. Baseline Trend Differences Between the Alignment Track Intervention and Comparison Groups for Medicaid and FFS Medicare Beneficiaries

Outcome	Medicaid		FFS Medicare	
	Alignment Track: CG Trend Difference (SE)	P-Value of Trend Differences	Alignment Track: CG Trend Difference (SE)	P-Value of Trend Differences
Total expenditures (PBPM)	−8 (10)	0.41	−29 (184)	0.88
Inpatient admissions per 1,000 beneficiaries	2 (1)	0.08	7 (54)	0.89
ACSC admissions per 1,000 beneficiaries	0.04 (0.2)	0.86	13 (16)	0.40
Unplanned readmission within 30 days of discharge per 1,000 discharges	0.2 (2)	0.89	−14 (11)	0.21
ED visits per 1,000 beneficiaries	−5 (8)	0.57	−64 (122)	0.60
Avoidable ED visits per 1,000 beneficiaries	−2 (3)	0.37	−32 (53)	0.55
PCP visits per 1,000 beneficiaries	19 (10)	0.05	−31 (118)	0.79
Specialist visits per 1,000 beneficiaries	−0.3 (9)	0.98	4 (97)	0.97

Definitions: ACSC = ambulatory care sensitive condition; CG = comparison group; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; SE = standard error.

Propensity Score Analysis for the Alignment Track

There is no randomized control group for the Alignment Track. Instead, we took advantage of the availability of a randomized control group for the Assistance Track and reused it as the comparison group for the Alignment Track. Like the Alignment Track intervention group, the Assistance Track control group had to meet the AHC Model's criteria for ED utilization and having at least one need, meaning that the two groups are already similar in these dimensions. We used propensity score weighting to ensure even more similarity between the two groups. When the intervention and comparison groups are similar on a set of characteristics like sociodemographic and geographic characteristics, health care utilization, and need for social services, we have more confidence that comparisons of evaluation outcomes between the two groups are the result of the AHC intervention and not confounding characteristics.

In a propensity score model, a logistic regression is used to model the probability (or propensity) that an individual is in the intervention group given a set of sociodemographic and other characteristics. The model is refined by removing or adding characteristics to improve the model's ability to balance covariates. Models were created at the person-year level and at the inpatient discharge level for the readmissions, follow-up visits within 14 days of discharge, and ED visits within 30 days of discharge. Discharge-level measures were only defined among beneficiaries with an inpatient discharge, so a separate propensity score model was created for that subsample. We also estimated a separate model for the follow-up visits within 30 days of a mental health discharge because this population was distinct from the other discharge-level measures, which explicitly excluded psychiatric admissions from the denominator. **Exhibit C-4** shows the covariates considered for inclusion in the propensity score analysis across Medicaid and FFS Medicare beneficiaries. Covariates considered for inclusion in the FFS

Medicare propensity score analysis were also considered for inclusion in the propensity score model for the combined FFS Medicare and MA sample.

Exhibit C-4. Propensity Score Characteristics

Variable Level	Source	Variables
Beneficiary	Medicaid and FFS Medicare enrollment data	Age Age < 65 years[1] Child (< 19 years)[2] Sex Number of needs at AHC Model screening Enrolled because of disability for at least 1 month in the year Enrolled in Medicaid managed care for at least 1 month in the year[2] Enrolled in the Children's Health Insurance Program for at least 1 month in the year[2] Months enrolled in the year Dually eligible for Medicaid for at least 1 month in the year[1] HCC risk score[1] Chronic Illness and Disability Payment System risk score[2] Number of chronic conditions in the year
Area-level	Area Health Resource File Data	Hospital beds per 1,000 population, 2017 Percentage of people < 65 years of age without health insurance, 2017 Percentage of people residing in a county designated as a mental health professional shortage area, 2017 Psychiatrists per 1,000 population, 2017 Percentage of people 16 years and older who are unemployed, 2017 Percentage of people residing in a county designated as a predominantly rural area
Area-level	AHC Community Profile Data	Percentage of adults who rate their health "fair" or "poor" Primary care physician-to-population ratio Median income Poverty rate Social Deprivation Index (composite measure encompassing poverty, education, single-parent households, rental housing, overcrowded housing, no car, and unemployment) Social service provider density Food environment index (limited access to health foods and food insecurity) Severe housing index
Area-level	COVID-19 Pandemic Vulnerability Index	COVID-19 PVI

[1] Medicare covariate only.
[2] Medicaid covariate only.
Definitions: AHC = Accountable Health Communities; FFS = fee-for-service; HCC = Hierarchical Condition Category; PVI = Pandemic Vulnerability Index.
Note: HCC scores were calculated during the calendar year in which each beneficiary was screened. List of propensity score variables is incomplete. Complete list is available upon request.

Using these characteristics, we iterated through several propensity score models and describe the final model below for the full study sample (the final models for the inpatient discharge–level sample and for the mental health discharge–level sample are not shown). Adequacy of propensity score models was assessed using overlay plots and review of the prevalence of characteristics for the sample before and after weighting the comparison group by the resulting propensity score. Overlay plots show the distribution of the resulting propensity scores across the intervention group and the comparison group. When distributions of scores are very similar between groups, the propensity score model is considered to have created good balance between groups. Covariate balance tables before and after propensity score weighting demonstrate whether the samples are similar on the covariates included in the propensity score. The weighted standardized difference is a metric that helps assess how different covariate estimates are; if the standardized difference is < 0.10, balance is considered good. It is important to note that the standardized difference may be large for area-level covariates even though the group prevalence estimates are similar, so the standardized difference must be considered in conjunction with a qualitative assessment of the similarity of estimates to judge model fit. For example, we applied a criterion that if the difference in prevalence or mean between groups was less than a value of 2, we considered the estimates similar, even if the standardized difference is > 0.10. Assessments of propensity score fit are shown for the year before screening.

Medicaid Propensity Score Results

The final propensity score model includes sociodemographic characteristics along with rural residence, percentage of the county in poverty, and whether the county had a shortage of mental health professionals. Area-level and community characteristics have relatively little variation across the study sample, and this lack of variation often results in propensity scores that do not balance the intervention and comparison group well. Given this, we minimized the number of area-level covariates included in the model. Adding several, but not all, area-level covariates addressed some regional variation while keeping the model simple enough to avoid poor weighted balance between study groups. Given the disparity between groups who live in a rural region and a region that is a designated mental health professional shortage area, we chose those covariates for the model. We chose poverty rate as a community characteristic to include in the model given its correlation with other community characteristics like the social deprivation, food environment, and severe housing problem indices. We also include the COVID-19 Pandemic Vulnerability Index (PVI) in the final propensity score model.

Before propensity score weighting, the intervention and comparison groups for several sociodemographic and county-/community-level covariates differed, and standardized differences were greater than 0.10 for those characteristics (**Exhibit C-5**). After propensity score weighting, standardized differences were below the 0.10 threshold for most covariates, indicating an acceptable level of covariate balance. Even though some characteristics (e.g., severe housing index, social service provider density) were still not balanced after propensity score weighting the comparison group, the two groups were more similar on those characteristics than without weighting. Several other county- and community-level covariates were fairly well-balanced after propensity score weighting, but the weighted standardized differences remained greater than 0.10 (e.g., food environment index, social deprivation index). Moreover, as shown in **Exhibit C-6**, the distribution of propensity scores for the comparison group was similar to the distribution for the intervention group (shown by the close overlay of the red dotted line and the black solid line). The balance and overlay plots for the first 2 years of the baseline period and the years after AHC enrollment also looked similar to the balance and plots for the year shown here.

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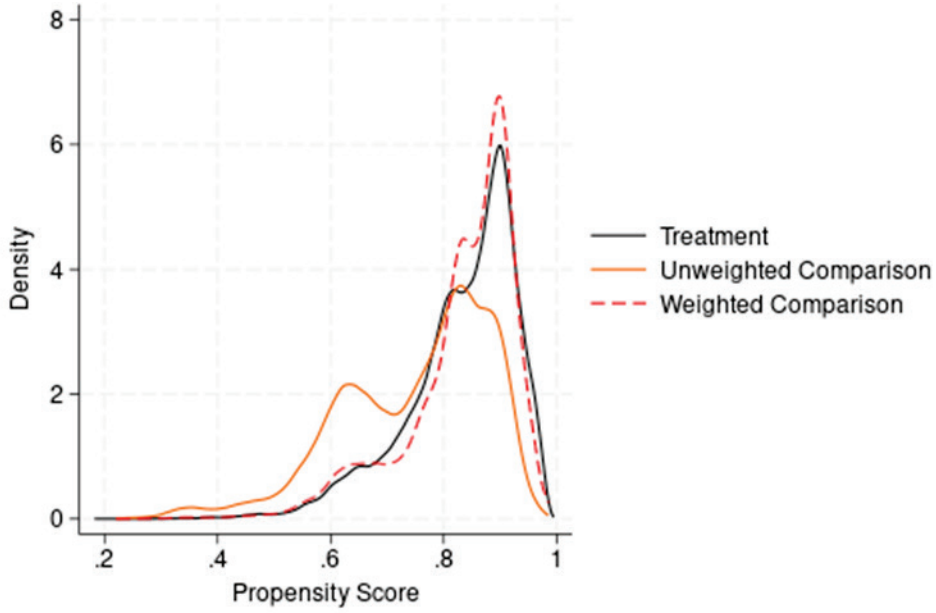
Exhibit C-5. Covariate Balance Between Alignment Track Intervention and Comparison Groups in the Last Baseline Year, Medicaid Beneficiaries

Variable	Unweighted Mean or Percentage, Intervention Group (N = 67,566)	Unweighted Mean or Percentage, Comparison Group (N = 15,215)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 67,047)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	66%	64%	0.05	67%	0.01
Number of needs	2	2	0.04	2	0.01
Chronic Illness and Disability Payment System risk score	1	1	0.14	1	0.03
Number of chronic conditions	0.7	0.6	0.11	0.7	0.03
Age	32	28	0.26	33	0.05
Child (<19 years)	16%	29%	0.32	14%	0.06
Enrolled because of disability	17%	14%	0.07	17%	0.01
Enrolled in managed care	73%	86%	0.33	74%	0.03
Enrolled in the Children's Health Insurance Program	4%	3%	0.02	3%	0.04
Number of months enrolled in Medicaid	11	11	0.01	11	0.01
County- and community-level characteristics					
People residing in a rural area	10%	14%	0.13	8%	0.06
People residing in a mental health professional shortage area	19%	29%	0.24	25%	0.14
Hospital beds per 1,000 population[1]	4	4	0.09	4	0.10

Variable	Unweighted Mean or Percentage, Intervention Group (N = 67,566)	Unweighted Mean or Percentage, Comparison Group (N = 15,215)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 67,047)	Weighted Standardized Difference
People < 65 years of age without health insurance	10%	11%	0.12	10%	0.15
Psychiatrists per 1,000 population[1]	0.2	0.1	0.26	0.2	0.00
Community mental health centers per 100,000 population[1]	< 0.01	< 0.01	0.11	< 0.01	0.04
People 16 years and older who are unemployed	4%	5%	0.09	4%	0.04
Adults in fair/poor health	17%	18%	0.21	17%	0.02
Primary care physician-to-population ratio[1]	9	8	0.44	9	0.05
Median income[1]	$61,405	$58,229	0.21	$60,904	0.03
People in poverty	15%	15%	0.08	14%	0.08
Social Deprivation Index score[1]	60	60	0.01	57	0.11
Social service provider density[1]	157	130	0.40	150	0.11
Food environment index[1]	8	8	0.27	8	0.33
Severe housing index[1]	19	17	0.50	17	0.45
COVID-19 PVI	0.3	0.2	0.10	0.2	0.03

[1] Not included in the propensity score model, but covariate balance between groups was examined.
Definitions: PVI = Pandemic Vulnerability Index.
Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-6. Overlay Plot for the Propensity Score in the Last Baseline Year, Medicaid Beneficiaries



Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS).

FFS Medicare Propensity Score Results

The final FFS Medicare propensity score model was very similar to the Medicaid model; it included sociodemographic characteristics along with rural residence, percentage of the county in poverty, and whether the county had a shortage of mental health professionals. We tested the FFS Medicare propensity score model including and excluding the Pandemic Vulnerability Index, or PVI. Unlike in our Medicaid analysis, inclusion of the PVI in the FFS Medicare propensity score model worsened the overlay plot (i.e., the distribution of propensity scores differed between the intervention and weighted comparison groups), and the inclusion of the PVI did not greatly improve covariate balance. Therefore, we included the PVI as a covariate in the FFS Medicare outcome models, but not in the FFS Medicare propensity score model. Before propensity score weighting, several covariates differed between the intervention and comparison groups, and standardized differences were greater than 0.10 for some individual- and county-level characteristics (**Exhibit C-7**). After propensity score weighting, standardized differences were below the 0.10 threshold for most covariates, indicating an acceptable level of covariate balance. Even though five characteristics (psychiatrists per 1,000 population, social service provider density, food environment index, severe housing index, COVID-19 PVI) were still not balanced after propensity score weighting the comparison group, the two groups were more similar on those characteristics with weighting than they were without. Moreover, the overlay plot in **Exhibit C-8** shows that the propensity score distribution of the comparison group was similar to the intervention group (i.e., the red dotted line is close to the black solid line). The balance and overlay plots for the first 2 years of the baseline period and years after AHC enrollment also looked similar to the balance and plots for the year shown here.

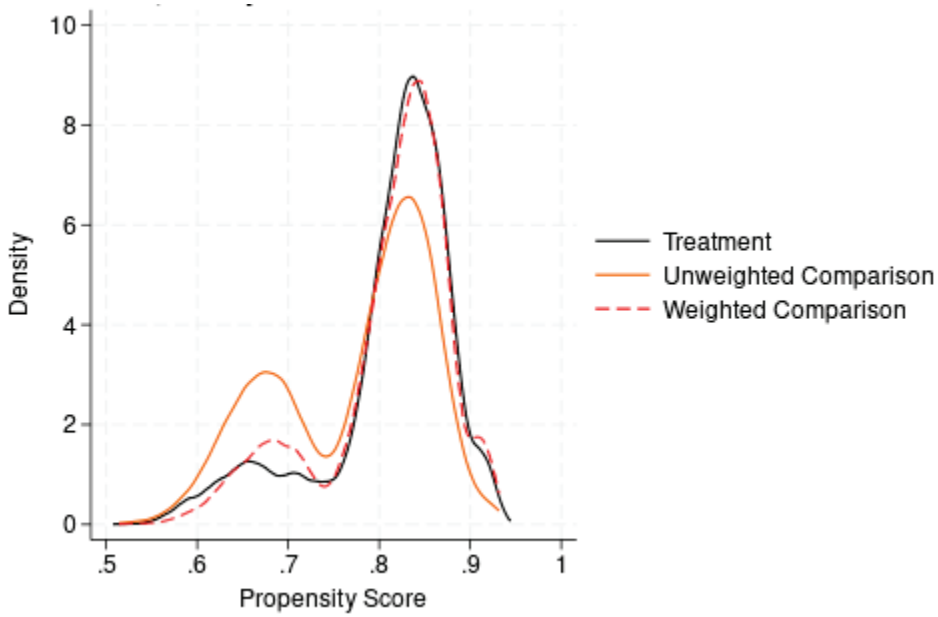
Exhibit C-7. Covariate Balance Between Alignment Track Intervention and Comparison Groups in the Last Baseline Year, FFS Medicare Beneficiaries

Variable	Unweighted Mean or Percentage, Intervention Group (N = 17,527)	Unweighted Mean or Percentage, Comparison Group (N = 4,315)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 17,439)	Weighted Standardized Difference
Sociodemographic characteristics					
Number of needs	2	2	0.02	2	0.01
HCC risk score	2	2	0.01	2	0.01
Number of chronic conditions	7	7	0.06	7	0.01
Age	61	62	0.05	61	0.01
Dually eligible for Medicaid	63%	58%	0.09	64%	0.02
Enrolled because of disability	63%	61%	0.03	62%	0.01
Enrolled because of end-stage renal disease	3%	3%	0.02	3%	0.01
Age < 65 years	53%	51%	0.04	52%	0.01
Number of months enrolled in Medicare	11	10	0.01	10	0.00
Female	60%	62%	0.04	61%	0.02
County- or community-level characteristics					
People residing in a rural area	14%	22%	0.20	13%	0.03
Hospital beds per 1,000 population[1]	4	3	0.07	4	0.05
People < 65 years of age without health insurance[1]	11%	10%	0.11	11%	0.06
People residing in a mental health professional shortage area	18%	36%	0.40	18%	0.00
Psychiatrists per 1,000 population[1]	0.2	0.1	0.24	0.1	0.19
Community mental health centers per 100,000 population[1]	< 0.01	< 0.01	0.11	< 0.01	0.08
People 16 years and older who are unemployed[1]	5%	5%	0.07	5%	0.06
Adults in fair/poor health[1]	17%	17%	0.01	17%	0.01
Primary care physician-to-population ratio[1]	8	8	0.21	8	0.07
Median income[1]	$62,304	$60,211	0.12	$62,546	0.01
People in poverty	15%	15%	0.04	14%	0.04

Variable	Unweighted Mean or Percentage, Intervention Group (N = 17,527)	Unweighted Mean or Percentage, Comparison Group (N = 4,315)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 17,439)	Weighted Standardized Difference
Social Deprivation Index score[1]	56	53	0.11	56	0.02
Social service provider density[1]	149	132	0.29	136	0.22
Food environment index[1]	8	8	0.50	8	0.44
Severe housing index[1]	19	17	0.46	17	0.30
COVID-19 PVI[1]	0.2	0.1	0.18	0.2	0.13

[1] Not included in the propensity score model, but covariate balance between groups was examined.
Definitions: FFS = fee-for-service; HCC = Hierarchical Condition Category: PVI = Pandemic Vulnerability Index.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-8. Overlay Plot for the Propensity Score in the Last Baseline Year, FFS Medicare Beneficiaries



Source: RTI analysis of Chronic Conditions Warehouse Medicare claims.

Combined FFS Medicare and MA Propensity Score Results

The final combined FFS Medicare and MA propensity score model was similar to the FFS Medicare propensity score model; it included sociodemographic characteristics along with rural residence, percentage of the county in poverty, and whether the county had a shortage of mental health professionals. However, the final combined FFS Medicare and MA propensity score model did not include end-stage renal disease. Before propensity score weighting, several covariates differed between the intervention and comparison groups, and standardized

differences were greater than 0.10 for some county-level characteristics (**Exhibit C-9**). After propensity score weighting, standardized differences were below the 0.10 threshold for most covariates, indicating an acceptable level of covariate balance. Even though five characteristics (psychiatrists per 1,000 population, PCP-to-population ratio, social service provider density, food environment index, severe housing index) were still not balanced after propensity score weighting the comparison group, the two groups were more similar on those characteristics with weighting than they were without. Moreover, the overlay plot in **Exhibit C-10** shows that the propensity score distribution of the comparison group was similar to the intervention group (i.e., the red dotted line is close to the black solid line). The balance and overlay plots for the first 2 years of the baseline period and the years after AHC enrollment also looked similar to the balance and plots for the year shown here.

Exhibit C-9. Covariate Balance Between Alignment Track Intervention and Comparison Groups in the Last Baseline Year, Combined FFS Medicare and MA Beneficiaries

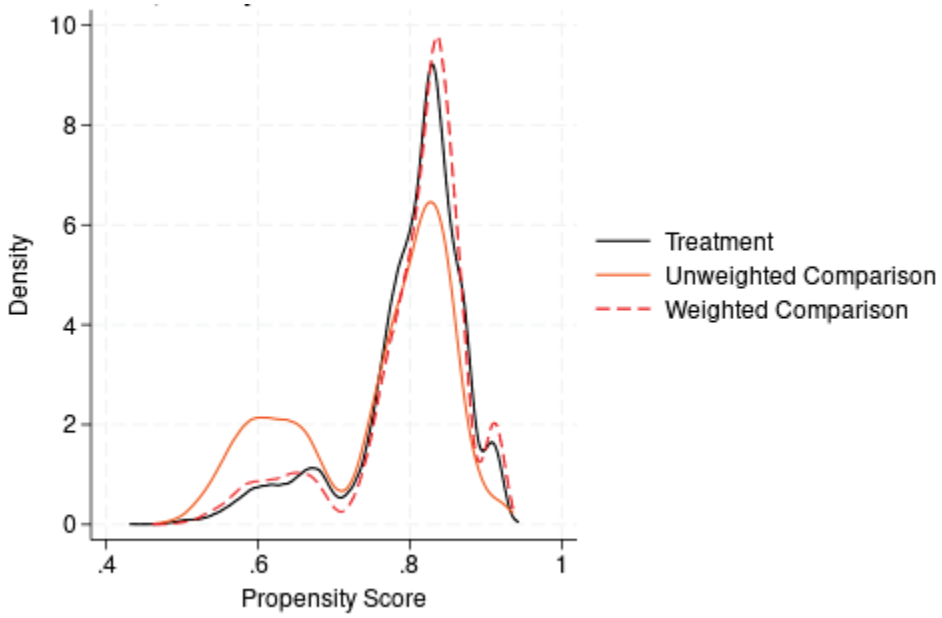
Variable	Unweighted Mean or Percentage, Intervention Group (N = 26,717)	Unweighted Mean or Percentage, Comparison Group (N = 7,153)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 26,978)	Weighted Standardized Difference
Sociodemographic characteristics					
Number of needs	2	2	0.04	2	0.02
HCC risk score	2	2	0.01	2	0.01
Number of chronic conditions	3	3	0.07	3	0.01
Age	62	64	0.09	62	0.01
Dually eligible for Medicaid	65%	57%	0.16	67%	0.04
Enrolled because of disability	62%	61%	0.01	61%	0.01
Enrolled because of end-stage renal disease[1]	3%	3%	0.03	3%	0.00
Age < 65 years	50%	47%	0.07	50%	0.00
Number of months enrolled in Medicare	11	11	0.02	11	0.01
Female	62%	62%	0.01	63%	0.01
County- or community-level characteristics					
People residing in a rural area	11%	22%	0.30	10%	0.04
Hospital beds per 1,000 population[1]	4	3	0.11	3	0.10

Variable	Unweighted Mean or Percentage, Intervention Group (N = 26,717)	Unweighted Mean or Percentage, Comparison Group (N = 7,153)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 26,978)	Weighted Standardized Difference
People < 65 years of age without health insurance[1]	11%	11%	0.03	11%	0.04
People residing in a mental health professional shortage area	15%	31%	0.41	14%	0.02
Psychiatrists per 1,000 population[1]	0.2	0.1	0.38	0.1	0.25
Community mental health centers per 100,000 population[1]	< 0.01	< 0.01	0.11	< 0.01	0.07
People 16 years and older who are unemployed[1]	5%	5%	0.12	5%	0.04
Adults in fair/poor health[1]	17%	17%	0.02	17%	0.02
Primary care physician-to-population ratio[1]	8	7	0.30	8	0.13
Median income[1]	$61,099	$58,270	0.17	$61,355	0.02
People in poverty	15%	15%	0.12	14%	0.03
Social Deprivation Index score[1]	57	55	0.09	57	0.01
Social service provider density[1]	147	128	0.29	134	0.20
Food environment index[1]	8	8	0.44	8	0.39
Severe housing index[1]	19	16	0.49	17	0.26
COVID-19 PVI[1]	0.3	0.4	0.06	0.4	0.04

[1] Not included in the propensity score model, but covariate balance between groups was examined.
Definitions: FFS = fee-for-service; HCC = Hierarchical Condition Category: MA = Medicare Advantage; PVI = Pandemic Vulnerability Index.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in combined MA and Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-10. Overlay Plot for the Propensity Score in the Last Baseline Year, FFS Medicare and MA Beneficiaries



Source: RTI analysis of Medicare claims and encounter data from the Integrated Data Repository.

Covariate Balance Between Intervention Group and Comparison Group in the Last Baseline Year Among Subpopulations

Similar to the overall propensity score models, we assessed baseline descriptives across sociodemographic and county-/community-level characteristics for the subpopulation analysis of Medicaid and FFS Medicare beneficiaries. We examined between-group differences for all subpopulations. We found several between-group differences (i.e., several differences between beneficiaries in the subpopulation and other beneficiaries). **Exhibits C-11, C-12,** and **C-26** show the descriptives for subpopulations where we found differences between groups (the results for these subpopulations are presented in Chapters 4 and 5). These include FFS Medicare beneficiaries with transportation needs and enrolled in an alternative payment model (APM) in the Assistance and Alignment Tracks and Medicaid beneficiaries with multiple needs in the Assistance and Alignment Tracks.

In **Exhibits C-14** through **C-20** and **C-22** through **C-25**, we include additional descriptives for the subpopulation analyses. These include baseline descriptives across sociodemographic and county-/community-level characteristics for the Assistance Track intervention and control and the Alignment Track intervention groups, baseline trend differences between the Alignment Track intervention and comparison groups, and baseline descriptives between the Alignment Track intervention and comparison groups with and without propensity score weighting.

Exhibit C-11. Covariate Balance by Intervention Group in the Last Baseline Year, FFS Medicare Beneficiaries with and Without a Transportation Need

Variable	Beneficiaries with a Transportation Need			Beneficiaries Without a Transportation Need		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 4,813)	(N = 2,096)	(N = 8,065)	(N = 5,660)	(N = 2,219)	(N = 9,462)
Sociodemographic characteristics						
Female	62%	62%	60%	60%	62%	60%
Number of needs	2	2	2	1	1	1
Screened positive for housing instability	35%	37%	40%	50%	49%	46%
Screened positive for food insecurity	48%	53%	58%	57%	59%	67%
Hierarchical Condition Category risk score	2	2	2	2	2	2
Number of chronic conditions	7	8	7	7	7	7
Diabetes	47%	48%	46%	45%	46%	46%
Pulmonary disease	49%	49%	48%	48%	46%	45%
Major depression	21%	21%	22%	17%	20%	18%
Substance use disorder	27%	27%	34%	23%	21%	27%
Age (mean)	64	64	62	62	62	62
Age < 65 years	47%	47%	52%	50%	51%	51%
Dually eligible for Medicaid	56%	58%	65%	55%	57%	59%
Enrolled because of disability	60%	58%	64%	61%	63%	62%
Enrolled because of end-stage renal disease	2%	2%	2%	3%	3%	3%
Number of months enrolled in Medicare	11	11	11	11	11	11
County-level characteristics						
People residing in a rural area	19%	19%	12%	25%	25%	17%

Variable	Beneficiaries with a Transportation Need			Beneficiaries Without a Transportation Need		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 4,813)	(N = 2,096)	(N = 8,065)	(N = 5,660)	(N = 2,219)	(N = 9,462)
People < 65 years of age without health insurance	10%	10%	10%	10%	10%	11%
People residing in a mental health professional shortage area	32%	31%	17%	40%	41%	20%
People in poverty	15%	14%	14%	15%	15%	15%

Definitions: FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-12. Covariate Balance by Intervention Group in the Last Baseline Year, FFS Medicare Beneficiaries with and Without Enrollment in an APM

Variable	Beneficiaries Enrolled in an APM			Beneficiaries Not Enrolled in an APM		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 4,325)	(N = 1,822)	(N = 7,085)	(N = 6,148)	(N= 2,493)	(N = 10,422)
Sociodemographic characteristics						
Female	63%	63%	64%	59%	62%	57%
Number of needs	2	2	2	2	2	2
Screened positive for housing instability	41%	41%	41%	45%	45%	45%
Screened positive for food insecurity	49%	52%	60%	56%	60%	66%
Hierarchical Condition Category risk score	2	2	2	2	2	2
Number of chronic conditions	8	8	8	7	7	7
Diabetes	48%	50%	46%	44%	44%	46%
Pulmonary disease	50%	50%	49%	47%	46%	45%
Major depression	19%	20%	22%	19%	21%	19%
Substance use disorder	21%	21%	29%	28%	27%	32%
Age (mean)	66	66	64	61	60	60
Age < 65 years	41%	40%	46%	55%	57%	56%
Dually eligible for Medicaid	49%	51%	58%	61%	64%	65%
Enrolled because of disability	56%	55%	60%	65%	66%	64%
Enrolled because of end-stage renal disease	2%	2%	1%	4%	3%	4%
Number of months enrolled in Medicare	12	12	12	11	11	11
County-level characteristics						
People residing in a rural area	22%	22%	17%	23%	22%	13%

Variable	Beneficiaries Enrolled in an APM			Beneficiaries Not Enrolled in an APM		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 4,325)	(N = 1,822)	(N = 7,085)	(N = 6,148)	(N= 2,493)	(N = 10,422)
People < 65 years of age without health insurance	10%	10%	10%	10%	10%	11%
People residing in a mental health professional shortage area	34%	32%	22%	39%	39%	17%
People in poverty	15%	15%	14%	15%	15%	15%

Definitions: APM = alternative payment model; FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-13. Covariate Balance by Intervention Group in the Last Baseline Year, FFS Medicare Beneficiaries with and Without Enrollment in an APM, Among Beneficiaries Without Diabetes and Pulmonary Disease

Variable	Beneficiaries Enrolled in an APM			Beneficiaries Not Enrolled in an APM		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 1,234)	(N = 495)	(N = 2,050)	(N = 2,117)	(N= 842)	(N = 3,588)
Sociodemographic characteristics						
Female	63%	64%	63%	58%	57%	53%
Number of needs	2	2	2	2	2	2
Screened positive for housing instability	43%	46%	42%	49%	46%	47%
Screened positive for food insecurity	44%	50%	57%	55%	60%	65%
Hierarchical Condition Category risk score	1	1	1	1	1	1
Number of chronic conditions	5	6	5	4	4	4
Diabetes	0%	0%	0%	0%	0%	0%
Pulmonary disease	0%	0%	0%	0%	0%	0%
Major depression	19%	23%	20%	18%	21%	18%
Substance use disorder	19%	21%	27%	27%	26%	32%
Age (mean)	65	64	63	58	56	57
Age < 65 years	42%	45%	47%	59%	63%	62%
Dually eligible for Medicaid	43%	45%	54%	60%	62%	64%
Enrolled because of disability	53%	53%	57%	67%	66%	67%
Enrolled because of end-stage renal disease	1%	2%	1%	2%	2%	2%
Number of months enrolled in Medicare	12	12	12	11	11	11
County-level characteristics						
People residing in a rural area	22%	22%	17%	21%	22%	11%

Variable	Beneficiaries Enrolled in an APM			Beneficiaries Not Enrolled in an APM		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 1,234)	(N = 495)	(N = 2,050)	(N = 2,117)	(N= 842)	(N = 3,588)
People < 65 years of age without health insurance	10%	10%	10%	10%	10%	11%
People residing in a mental health professional shortage area	34%	34%	21%	37%	37%	14%
People in poverty	15%	15%	13%	15%	14%	14%

Definitions: APM = alternative payment model; FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-14. Expenditure and Quality-of-Care Descriptive Statistics in the 3-Year Baseline Period, FFS Medicare Beneficiaries with and Without a Transportation Need

Outcome	Beneficiaries with a Transportation Need			Beneficiaries Without a Transportation Need		
	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)
Total expenditures per beneficiary per month	2,370 (3,905)	2,207 (3,536)	2,517 (3,940)	1,860 (3,223)	1,810 (3,173)	2,135 (4,131)
Inpatient admissions per 1,000 beneficiaries	888 (1,848)	828 (1,625)	918 (1,771)	706 (1,519)	696 (1,520)	725 (1,527)
ACSC admissions per 1,000 beneficiaries	198 (807)	198 (704)	209 (735)	159 (675)	152 (670)	159 (646)
Unplanned readmissions per 1,000 discharges	260 (439)	245 (430)	255 (436)	234 (423)	226 (419)	225 (418)
ED visits per 1,000 beneficiaries	2,469 (5,604)	2,349 (5,521)	2,986 (6,595)	2,044 (3,743)	2,082 (4,613)	2,436 (5,116)
Avoidable ED visits per 1,000 beneficiaries	1,194 (3,007)	1,159 (3,237)	1,407 (3,449)	1,020 (2,040)	1,037 (2,427)	1,155 (2,585)
PCP visits per 1,000 beneficiaries	6,670 (7,174)	6,664 (7,579)	6,355 (7,227)	6,466 (6,677)	6,389 (6,698)	6,174 (6,541)
Specialist visits per 1,000 beneficiaries	6,648 (6,971)	6,583 (6,968)	7,003 (7,414)	6,261 (6,576)	6,196 (6,504)	7,094 (7,121)

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PAC = post-acute care; PCP = primary care provider; SD = standard deviation.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses.

Exhibit C-15. Expenditure and Quality-of-Care Descriptive Statistics in the 3-Year Baseline Period, FFS Medicare Beneficiaries with and Without Enrollment in an APM

Outcome	Beneficiaries Enrolled in an APM			Beneficiaries Not Enrolled in an APM		
	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)
Total expenditures per beneficiary per month	2,169 (3,366)	1,979 (3,093)	2,276 (3,624)	2,061 (3,750)	2,005 (3,540)	2,339 (4,346)
Inpatient admissions per 1,000 beneficiaries	811 (1,656)	739 (1,434)	807 (1,561)	783 (1,718)	772 (1,670)	820 (1,711)
ACSC admissions per 1,000 beneficiaries	193 (703)	182 (641)	183 (661)	166 (773)	167 (720)	181 (710)
Unplanned readmissions per 1,000 discharges	254 (435)	218 (413)	231 (422)	243 (429)	249 (433)	248 (432)
ED visits per 1,000 beneficiaries	2,085 (4,429)	1,896 (3,564)	2,455 (4,644)	2,389 (4,996)	2,448 (5,956)	2,872 (6,630)
Avoidable ED visits per 1,000 beneficiaries	1,018 (2,442)	0,939 (2,007)	1,169 (2,454)	1,176 (2,652)	1,215 (3,332)	1,350 (3,387)
PCP visits per 1,000 beneficiaries	7,120 (6,797)	6,967 (6,758)	6,984 (6,736)	6,112 (6,997)	6,164 (7,373)	5,700 (6,915)
Specialist visits per 1,000 beneficiaries	7,341 (7,137)	7,047 (6,976)	7,514 (7,278)	5,720 (6,371)	5,849 (6,474)	6,696 (7,223)

Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; ED = emergency department; FFS = fee-for-service; PAC = post-acute care; PCP = primary care provider; SD = standard deviation.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses.

Exhibit C-16. Expenditure and Quality-of-Care Descriptive Statistics in the 3-Year Baseline Period, FFS Medicare Beneficiaries with and Without Enrollment in an APM, Among Beneficiaries Without Diabetes and Pulmonary Disease

Outcome	Beneficiaries Enrolled in an APM			Beneficiaries Not Enrolled in an APM		
	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)
Total expenditures per beneficiary per month	1,342 (2,304)	1,261 (2,163)	1,460 (2,621)	1,313 (2,790)	1,265 (2,611)	1,554 (4,358)
Inpatient admissions per 1,000 beneficiaries	470 (1,116)	415 (935)	437 (1,039)	530 (1,537)	474 (1,236)	540 (1,343)
ACSC admissions per 1,000 beneficiaries	46 (307)	38 (238)	36 (233)	77 (776)	63 (399)	64 (404)
Unplanned readmissions per 1,000 discharges	224 (417)	159 (366)	149 (356)	201 (401)	197 (398)	211 (408)
ED visits per 1,000 beneficiaries	1,760 (3,441)	1,525 (2,553)	2,107 (4,931)	2,201 (5,115)	2,071 (4,928)	2,497 (5,982)
Avoidable ED visits per 1,000 beneficiaries	739 (1,601)	697 (1,411)	909 (2,343)	1,058 (2,933)	964 (2,358)	1,071 (2,682)
PCP visits per 1,000 beneficiaries	5,441 (5,302)	5,525 (5,065)	5,592 (5,804)	4,674 (5,757)	4,745 (5,922)	4,376 (6,009)
Specialist visits per 1,000 beneficiaries	5,602 (5,878)	5,939 (6,471)	6,000 (6,327)	4,426 (5,601)	4,821 (5,892)	5,351 (6,744)

Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; ED = emergency department; FFS = fee-for-service; PAC = post-acute care; PCP = primary care provider; SD = standard deviation.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses.

Exhibit C-17. Baseline Trend Differences Between the Alignment Track Intervention and Comparison Groups for FFS Medicare Beneficiaries with and Without a Transportation Need

Outcome	Beneficiaries with a Transportation Need		Beneficiaries Without a Transportation Need	
	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences
Total expenditures (PBPM)	−3 (230)	0.99	−36 (151)	0.81
ED visits per 1,000 beneficiaries	−82 (173)	0.63	−40 (87)	0.65
Avoidable ED visits per 1,000 beneficiaries	−23 (81)	0.77	−39 (42)	0.35
Inpatient admissions per 1,000 beneficiaries	58 (69)	0.40	−35 (59)	0.56
ACSC admissions per 1,000 beneficiaries	43 (22)	0.06	−15 (24)	0.55
PCP visits per 1,000 beneficiaries	−46 (186)	0.80	−18 (163)	0.91
Specialist visits per 1,000 beneficiaries	14 (13)	0.92	−10 (109)	0.93
Unplanned readmission within 30 days of discharge per 1,000 discharges	1 (13)	0.92	−31 (15)	0.04

Definitions: ACSC = ambulatory care sensitive condition; CG = comparison group; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; SE = standard error.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses.

Exhibit C-18. Baseline Trend Differences Between the Alignment Track Intervention and Comparison Groups for FFS Medicare Beneficiaries with and Without Enrollment in an APM

Outcome	Beneficiaries Enrolled in an APM		Beneficiaries Not Enrolled in an APM	
	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences
Total expenditures (PBPM)	−118 (173)	0.49	33 (201)	0.87
ED visits per 1,000 beneficiaries	−93 (105)	0.37	−53 (161)	0.74
Avoidable ED visits per 1,000 beneficiaries	−61 (49)	0.21	−17 (67)	0.79
Inpatient admissions per 1,000 beneficiaries	−53 (75)	0.49	49 (44)	0.27
ACSC admissions per 1,000 beneficiaries	−29 (27)	0.28	42 (16)	0.01
PCP visits per 1,000 beneficiaries	185 (120)	0.12	−174 (181)	0.34
Specialist visits per 1,000 beneficiaries	−206 (133)	0.12	162 (123)	0.19
Unplanned readmission within 30 days of discharge per 1,000 discharges	−5 (13)	0.74	−20 (14)	0.16

Definitions: ACSC = ambulatory care sensitive condition; APM = alternative payment model; CG = comparison group; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; SE = standard error.

Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses.

Exhibit C-19. Baseline Trend Differences Between the Alignment Track Intervention and Comparison Groups for FFS Medicare Beneficiaries with and Without Enrollment in an APM, Among Beneficiaries Without Diabetes and Pulmonary Disease

Outcome	Beneficiaries Enrolled in an APM		Beneficiaries Not Enrolled in an APM	
	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences
Total expenditures (PBPM)	-176 (120)	0.14	250 (137)	0.07
ED visits per 1,000 beneficiaries	29 (151)	0.85	255 (112)	0.02
Avoidable ED visits per 1,000 beneficiaries	-14 (71)	0.84	23 (73)	0.75
Inpatient admissions per 1,000 beneficiaries	-54 (50)	0.28	146 (50)	<0.01
ACSC admissions per 1,000 beneficiaries	13 (15)	0.41	75 (48)	0.11
PCP visits per 1,000 beneficiaries	145 (118)	0.22	-296 (268)	0.27
Specialist visits per 1,000 beneficiaries	-159 (148)	0.28	56 (207)	0.79
Unplanned readmission within 30 days of discharge per 1,000 discharges	-27 (29)	0.35	0 (20)	0.99

Definitions: ACSC = ambulatory care sensitive condition; CG = comparison group; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; SE = standard error.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses.

Exhibit C-20. Covariate Balance for Alignment Track, Before and After Weighting for FFS Medicare Beneficiaries with a Transportation Need, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 8,065)	Unweighted Mean or Percentage, Comparison Group (N = 2,096)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,643)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	60%	62%	-0.04	61%	−0.01
Number of needs	2	2	0.05	2	0.03
Screened positive for housing instability	40%	37%	0.05	38%	0.05
Screened positive for food insecurity	58%	53%	0.1	55%	0.06
Hierarchical Condition Category risk score	2	2	0.03	2	0.01
Number of chronic conditions	7	8	−0.1	7	−0.05
Diabetes	46%	48%	−0.04	48%	−0.05
Chronic obstructive pulmonary disease	48%	49%	−0.02	47%	0.02
Major depression	22%	21%	0.04	21%	0.04
Substance use disorder	34%	27%	0.16	28%	0.15
Age (mean)	62	64	−0.11	63	−0.06
Age < 65 years	52%	47%	0.11	48%	0.08
Dually eligible for Medicaid	65%	58%	0.15	63%	0.05
Enrolled because of disability	64%	58%	0.11	59%	0.09
Enrolled because of end-stage renal disease	2%	2%	0.01	2%	0.01
Number of months enrolled in Medicare	11	11	−0.03	11	−0.02

Variable	Unweighted Mean or Percentage, Intervention Group (N = 8,065)	Unweighted Mean or Percentage, Comparison Group (N = 2,096)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,643)	Weighted Standardized Difference
County-level characteristics					
People residing in a rural area	12%	19%	−0.19	11%	0.02
People < 65 years of age without health insurance	10%	10%	0.04	10%	0
People residing in a mental health professional shortage area	17%	31%	−0.33	16%	0.03
People in poverty	14%	14%	−0.01	14%	0.06

Definitions: FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-21. Covariate Balance for Alignment Track, Before and After Weighting for FFS Medicare Beneficiaries Without a Transportation Need, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 9,462)	Unweighted Mean or Percentage, Comparison Group (N = 2,219)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,575)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	60%	62%	−0.04	61%	−0.01
Number of needs	1	1	0.05	1	0.03
Screened positive for housing instability	46%	49%	−0.06	49%	−0.05
Screened positive for food insecurity	67%	59%	0.17	60%	0.15
Hierarchical Condition Category risk score	2	2	0.02	2	−0.01
Number of chronic conditions	7	7	−0.01	7	0.04
Diabetes	46%	46%	0	46%	0
Chronic obstructive pulmonary disease	45%	46%	−0.02	44%	0.02

Variable	Unweighted Mean or Percentage, Intervention Group (N = 9,462)	Unweighted Mean or Percentage, Comparison Group (N = 2,219)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,575)	Weighted Standardized Difference
Major depression	18%	20%	−0.04	20%	−0.04
Substance use disorder	27%	21%	0.13	21%	0.13
Age (mean)	62	62	−0.01	61	0.05
Age < 65 years	51%	51%	0	53%	−0.04
Dually eligible for Medicaid	59%	57%	0.04	63%	−0.08
Enrolled because of disability	62%	63%	−0.03	64%	−0.05
Enrolled because of end-stage renal disease	3%	3%	0.04	3%	0.02
Number of months enrolled in Medicare	11	11	0.03	11	0.02
County-level characteristics					
People residing in a rural area	17%	25%	−0.19	15%	0.05
People < 65 years of age without health insurance	11%	10%	0.17	11%	0.12
People residing in a mental health professional shortage area	20%	41%	−0.46	22%	−0.03
People in poverty	15%	15%	−0.07	15%	0.03

Definitions: FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-22. Covariate Balance for Alignment Track, Before and After Weighting for FFS Medicare Beneficiaries Enrolled in an APM, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 7,085)	Unweighted Mean or Percentage, Comparison Group (N = 1,822)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,021)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	64%	63%	0.03	62%	0.06
Number of needs	2	2	0.03	2	<.01

Variable	Unweighted Mean or Percentage, Intervention Group (N = 7,085)	Unweighted Mean or Percentage, Comparison Group (N = 1,822)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,021)	Weighted Standardized Difference
Screened positive for housing instability	41%	41%	−0.01	41%	−0.01
Screened positive for food insecurity	60%	52%	0.15	53%	0.13
Hierarchical Condition Category risk score	2	2	<.01	2.18	−0.02
Number of chronic conditions	8	8	−0.14	8	−0.10
Diabetes	46%	50%	−0.1	51%	−0.12
Chronic obstructive pulmonary disease	49%	50%	−0.01	48%	0.02
Major depression	22%	20%	0.04	20%	0.05
Substance use disorder	29%	21%	0.18	21%	0.18
Age (mean)	64	66	−0.14	65	−0.10
Age < 65 years	46%	40%	0.12	42%	0.09
Dually eligible for Medicaid	58%	51%	0.14	56%	0.04
Enrolled because of disability	60%	55%	0.11	56%	0.09
Enrolled because of end-stage renal disease	1%	2%	−0.03	2%	−0.04
Number of months enrolled in Medicare	12	12	−0.04	12	−0.04
County-level characteristics					
People residing in a rural area	17%	22%	−0.14	14%	0.08
People < 65 years without health insurance	10%	10%	0.04	10%	0.03

Variable	Unweighted Mean or Percentage, Intervention Group (N = 7,085)	Unweighted Mean or Percentage, Comparison Group (N = 1,822)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 7,021)	Weighted Standardized Difference
People residing in a mental health professional shortage area	22%	32%	−0.24	17%	0.12
People in poverty	14%	15%	−0.19	14%	−0.11

Definitions: APM = alternative payment model; FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-23. Covariate Balance for Alignment Track, Before and After Weighting for FFS Medicare Beneficiaries Not Enrolled in an APM, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 10,422)	Unweighted Mean or Percentage, Comparison Group (N = 2,493)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 8,196)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	57%	62%	−0.09	60%	−0.06
Number of needs	2	2	0.01	2	−0.03
Screened positive for housing instability	45%	45%	0	44%	0.01
Screened positive for food insecurity	66%	60%	0.13	61%	0.1
Hierarchical Condition Category risk score	2	2	0.04	2	0.01
Number of chronic conditions	7	7	0.02	6	0.07
Diabetes	46%	44%	0.05	44%	0.05

Variable	Unweighted Mean or Percentage, Intervention Group (N = 10,422)	Unweighted Mean or Percentage, Comparison Group (N = 2,493)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 8,196)	Weighted Standardized Difference
Chronic obstructive pulmonary disease	45%	46%	−0.03	44%	0.02
Major depression	19%	21%	−0.04	21%	−0.04
Substance use disorder	32%	27%	0.1	27%	0.09
Age (mean)	60	60	0.02	59	0.08
Age < 65 years	56%	57%	−0.01	58%	−0.05
Dually eligible for Medicaid	65%	64%	0.03	69%	−0.08
Enrolled because of disability	64%	66%	−0.02	67%	−0.05
Enrolled because of end-stage renal disease	4%	3%	0.05	3%	0.04
Number of months enrolled in Medicare	11	11	0.03	11	0.02
County-level characteristics					
People residing in a rural area	13%	22%	−0.22	13%	0.02
People < 65 years of age without health insurance	11%	10%	0.16	11%	0.09
People residing in a mental health professional shortage area	17%	39%	−0.52	20%	−0.09
People in poverty	15%	15%	0.07	14%	0.16

Definitions: APM = alternative payment model; FFS = fee-for-service.
Notes: Both beneficiaries who were dually eligible for Medicaid and Medicare and those only eligible for Medicare were included in Medicare FFS analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-24. Covariate Balance for Alignment Track, Before and After Weighting for FFS Medicare Beneficiaries Without Diabetes and Pulmonary Disease and Enrolled in an APM, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 2,050)	Unweighted Mean or Percentage, Comparison Group (N = 495)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 1,879)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	63%	64%	-0.03	62%	0.02
Number of needs	2	2	0.00	2	-0.03
Screened positive for housing instability	42%	46%	-0.09	45%	-0.07
Screened positive for food insecurity	57%	50%	0.14	51%	0.12
Hierarchical Condition Category risk score	1	1	0.09	1	0.07
Number of chronic conditions	5	6	-0.14	5	-0.07
Diabetes	0%	0%	N/A	0%	N/A
Chronic obstructive pulmonary disease	0%	0%	N/A	0%	N/A
Major depression	20%	23%	-0.08	23%	-0.08
Substance use disorder	27%	21%	0.14	22%	0.12
Age (mean)	63	64	-0.07	63	-0.01
Age < 65 years	47%	45%	0.05	48%	0.00
Dually eligible for Medicaid	54%	45%	0.18	50%	0.10
Enrolled because of disability	57%	53%	0.08	56%	0.04
Enrolled because of end-stage renal disease	1%	2%	-0.06	2%	-0.06
Number of months enrolled in Medicare	12	12	-0.01	12	0.00

Variable	Unweighted Mean or Percentage, Intervention Group (N = 2,050)	Unweighted Mean or Percentage, Comparison Group (N = 495)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 1,879)	Weighted Standardized Difference
County-level characteristics					
People residing in a rural area	17%	22%	-0.13	13%	0.10
People < 65 years of age without health insurance	10%	10%	0.19	9%	0.21
People residing in a mental health professional shortage area	21%	34%	-0.29	18%	0.07
People in poverty	13%	15%	-0.27	14%	-0.19

Definitions: APM = alternative payment model; FFS = fee-for-service.
Notes: Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-25. Covariate Balance for Alignment Track, Before and After Weighting for FFS Medicare Beneficiaries Without Diabetes and Pulmonary Disease and Not Enrolled in an APM, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 3,588)	Unweighted Mean or Percentage, Comparison Group (N = 842)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 2,722)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	53%	57%	-0.09	56%	-0.06
Number of needs	2	2	0.01	2	-0.03
Screened positive for housing instability	47%	46%	0.02	45%	0.04
Screened positive for food insecurity	65%	60%	0.10	62%	0.06
Hierarchical Condition Category risk score	1	1	0.05	1	0.04
Number of chronic conditions	4	4	0.00	4	0.10

Variable	Unweighted Mean or Percentage, Intervention Group (N = 3,588)	Unweighted Mean or Percentage, Comparison Group (N = 842)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 2,722)	Weighted Standardized Difference
Diabetes	0%	0%	N/A	0%	N/A
Chronic obstructive pulmonary disease	0%	0%	N/A	0%	N/A
Major depression	18%	21%	-0.08	21%	-0.08
Substance use disorder	32%	26%	0.12	27%	0.11
Age (mean)	57	56	0.06	55	0.15
Age < 65 years	62%	63%	-0.02	66%	-0.08
Dually eligible for Medicaid	64%	62%	0.04	67%	-0.07
Enrolled because of disability	67%	66%	0.02	69%	-0.03
Enrolled because of end-stage renal disease	2%	2%	0.03	2%	0.01
Number of months enrolled in Medicare	11	11	0.00	11	-0.01
County-level characteristics					
People residing in a rural area	11%	22%	-0.29	12%	-0.05
People < 65 years of age without health insurance	11%	10%	0.17	10%	0.10
People residing in a mental health professional shortage area	14%	37%	-0.54	19%	-0.12
People in poverty	14%	14%	-0.02	14%	0.07

Definitions: APM = alternative payment model; FFS = fee-for-service.
Notes: Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-26. Covariate Balance by Intervention Group in the Last Baseline Year for Medicaid Beneficiaries with and Without Multiple Needs

Variable	Beneficiaries with Multiple Needs			Beneficiaries with 1 Need		
	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group	Assistance Track Intervention Group	Assistance Track Control Group	Alignment Track Intervention Group
	(N = 19,364)	(N = 8,890)	(N = 41,407)	(N = 15,668)	(N = 6,325)	(N = 26,159)
Sociodemographic characteristics						
Female	64%	64%	65%	63%	64%	68%
Number of needs	3	3	3	1	1	1
Chronic Illness and Disability Payment risk score	1	1	1	1	1	1
Charlson Comorbidity Index	1	1	1	0.5	0.5	1
Age (mean)	29	30	34	26	26	30
Child < 19 years	26%	26%	13%	33%	33%	20%
Enrolled because of disability	15%	16%	19%	12%	12%	15%
Enrolled in comprehensive managed care	84%	85%	75%	87%	87%	69%
Number of months enrolled in Medicaid	11	11	11	11	11	11
County-level characteristics						
People residing in a rural area	13%	14%	10%	16%	15%	11%
People residing in a mental health professional shortage area	30%	31%	19%	29%	28%	19%
People < 65 years of age without health insurance	11%	11%	10%	11%	11%	11%
People in poverty	15%	15%	15%	15%	15%	15%

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-27. Expenditure and Quality-of-Care Descriptive Statistics in the 3-Year Baseline Period, Medicaid Beneficiaries with and Without Multiple Needs

Outcome	Beneficiaries with Multiple Needs			Beneficiaries with 1 Need		
	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)	Assistance Track Control Group Mean (SD)	Assistance Track Intervention Group Mean (SD)	Alignment Track Intervention Group Mean (SD)
Total expenditures per beneficiary per month	1,260 (3,058)	1,251 (3,753)	1,421 (2,691)	1,086 (2,313)	1,084 (2,525)	1,303 (2,704)
Inpatient admissions per 1,000 beneficiaries	102 (418)	102 (416)	122 (453)	84 (382)	83 (366)	106 (413)
ACSC admissions per 1,000 beneficiaries	10 (138)	11 (128)	14 (158)	8 (111)	8 (116)	10 (123)
Unplanned readmissions per 1,000 discharges	222 (416)	217 (412)	213 (409)	206 (405)	199 (400)	196 (397)
ED visits per 1,000 beneficiaries	776 (1,739)	754 (1,642)	949 (2,162)	639 (1,391)	638 (1,378)	781 (1,747)
Avoidable ED visits per 1,000 beneficiaries	361 (817)	349 (830)	390 (944)	309 (735)	310 (734)	346 (853)
PCP visits per 1,000 beneficiaries	1135 (1,787)	1134 (1,793)	1337 (2,020)	1131 (1,844)	1135 (1,744)	1399 (2,022)
Specialist visits per 1,000 beneficiaries	896 (1,846)	891 (1,846)	827 (1,742)	789 (1,667)	777 (1,614)	784 (1,649)

Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care provider; SD = standard deviation.
Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses.

Exhibit C-28. Baseline Trend Differences Between the Alignment Track Intervention and Comparison Groups for Medicaid Beneficiaries with and Without Multiple Needs

Outcome	Beneficiaries with Multiple Needs		Beneficiaries with 1 Need	
	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences	Alignment Track CG Trend Difference (SE)	P-Value of Trend Differences
Total expenditures (PBPM)	−17 (12)	0.15	5 (8)	0.56
ED visits per 1,000 beneficiaries	−5 (8)	0.53	3 (8)	0.70
Avoidable ED visits per 1,000 beneficiaries	−3 (3)	0.34	2 (3)	0.52
Inpatient admissions per 1,000 beneficiaries	2 (2)	0.12	2 (1)	0.11
ACSC admissions per 1,000 beneficiaries	0.06 (0.3)	0.84	0.00 (0.4)	1.00
PCP visits per 1,000 beneficiaries	18 (11)	0.10	21 (9)	0.02
Specialist visits per 1,000 beneficiaries	0.9 (11)	0.94	−2 (8)	0.80
Unplanned readmission within 30 days of discharge per 1,000 discharges	1 (2)	0.40	−2 (3)	0.52

Definitions: ACSC = ambulatory care sensitive condition; CG = comparison group; ED = emergency department; PBPM = per beneficiary per month; PCP = primary care provider; SE = standard error.
Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses.

Exhibit C-29. Covariate Balance for Alignment Track, Before and After Weighting for Medicaid Beneficiaries with Multiple Needs, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 41,407)	Unweighted Mean or Percentage, Comparison Group (N = 8,890)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 41,251)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	65%	64%	0.03	66%	0.01
Number of needs	3	3	0.01	3	0.01
Chronic Illness and Disability Payment risk score	1	1	0.12	1	0.01
Charlson Comorbidity Index	1	1	0.10	1	0.01
Age (mean)	34	30	0.26	35	0.04
Child < 19 years	13%	26%	0.33	12%	0.05
Enrolled because of disability	19%	16%	0.07	18%	0.02
Enrolled in comprehensive managed care	75%	85%	0.26	78%	0.08
Number of months enrolled in Medicaid	11	11	0.00	11	0.01
County-level characteristics					
People residing in a rural area	10%	14%	0.13	8%	0.04
People residing in a mental health professional shortage area	19%	31%	0.27	23%	0.10
People < 65 years of age without health insurance	10%	11%	0.12	10%	0.15
People in poverty	15%	15%	0.06	14%	0.06

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Exhibit C-30. Covariate Balance for Alignment Track, Before and After Weighting for Medicaid Beneficiaries with 1 Need, 1 Year Before Screening

Variable	Unweighted Mean or Percentage, Intervention Group (N = 26,159)	Unweighted Mean or Percentage, Comparison Group (N = 6,325)	Unweighted Standardized Difference	Weighted Mean or Percentage, Comparison Group (N = 26,162)	Weighted Standardized Difference
Sociodemographic characteristics					
Female	68%	64%	0.07	68%	0.01
Number of needs	1	1	0.00	1	0.00
Chronic Illness and Disability Payment risk score	1	1	0.16	1	0.03
Charlson Comorbidity Index	1	0.5	0.13	1	0.06
Age (mean)	30	26	0.24	31	0.06
Child < 19 years	20%	33%	0.30	17%	0.07
Enrolled because of disability	15%	12%	0.07	15%	0.02
Enrolled in comprehensive managed care	69%	87%	0.45	69%	0.02
Number of months enrolled in Medicaid	11	11	0.03	10	0.03
County-level characteristics					
People residing in a rural area	11%	15%	0.12	8%	0.09
People residing in a mental health professional shortage area	19%	28%	0.20	27%	0.19
People < 65 years of age without health insurance	11%	11%	0.12	10%	0.16
People in poverty	15%	15%	0.11	14%	0.11

Notes: Beneficiaries who were dually eligible for Medicaid and Medicare were excluded from Medicaid analyses. Table of covariate balance is incomplete. Complete table is available upon request.

Appendix D: Alternative Text for Figures

Alternative Text for Exhibit ES-1, Impacts on Expenditures and Hospital-Based Utilization

Type of Impact	Assistance Track	Alignment Track
Total Medicaid/Medicare expenditures	• Medicaid beneficiaries had a 3% reduction in total expenditures • FFS Medicare beneficiaries had a 4% reduction in total expenditures	• Medicaid beneficiaries had a 7% reduction in total expenditures
Inpatient admissions	• Medicaid beneficiaries had a 3% reduction in all-cause inpatient admissions and a 7% reduction in unplanned readmissions • FFS Medicare beneficiaries had an 8% reduction in ACSC admissions and a 7% reduction in unplanned readmissions	-
ED visits	• FFS Medicare beneficiaries had a 4% reduction in ED visits and a 5% reduction in avoidable ED visits	• Medicaid beneficiaries had a 3% reduction in ED visits and a 3% reduction in avoidable ED visits
Ambulatory care	• Medicaid beneficiaries had a 1% reduction in specialist visits • FFS Medicare beneficiaries had a 4% reduction in PCP visits and a 3% reduction in specialist visits	• Medicaid beneficiaries had a 5% reduction in PCP visits • FFS Medicare beneficiaries had a 4% reduction in PCP visits

Data for Exhibit ES-2 and Exhibit 2-2, Differences in PBPM Expenditures in the 12 Months Before Screening by Type of Core Need Among Beneficiaries Who Reported Two or More ED Visits

Core Need	Medicaid	FFS Medicare
Transportation vs. no needs	$223***	$678**
Food vs. no needs	$137*	$109
Housing vs. no needs	$166**	$53
Utility vs. no needs	$60	$200

Data for Exhibit 2-1, Differences in PBPM Expenditures Between Those with and Without Core Needs in the 3 Years Before AHC Screening

Time	Medicaid	FFS Medicare
3 years before AHC screening	$246***	$418***
2 years before AHC screening	$298***	$490***
1 year before AHC screening	$334***	$441***

Data for Exhibit 2-3, Key Descriptive Characteristics of Medicaid and FFS Medicare Beneficiaries Who Were Screened and Eligible for AHC

Beneficiary Type	Disabled	Multiple Needs
Medicaid, All Screened	11%	23%
Medicaid, Navigation-Eligible	15%	59%
FFS Medicare, All Screened	31%	11%
FFS Medicare, Navigation Eligible	62%	51%