


Accountable Health Communities (AHC) Model Evaluation

Third Evaluation Report

November 2024

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ACCOUNTABLE HEALTH COMMUNITIES (AHC) MODEL EVALUATION
THIRD EVALUATION REPORT

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List of Exhibits

List of Acronyms

ACO	accountable care organization
ACSC	ambulatory care sensitive condition
AHC	Accountable Health Communities
AOD	alcohol and other drug
CARES Act	Coronavirus Aid, Relief, and Economic Security Act
CCW	Chronic Conditions Data Warehouse
CDS	clinical delivery site
CHW	community health worker
CMS	Centers for Medicare & Medicaid Services
COPD	chronic obstructive pulmonary disease
CQI	continuous quality improvement
CRI	community resource inventory
CRS	community referral summary
CSP	community service provider
DID	difference in differences
EBT	electronic benefits transfer
ED	emergency department
ER2	Second Evaluation Report
FFS	fee-for-service
FOA	funding opportunity announcement
HHS	U.S. Department of Health and Human Services
HRES	health resource equity statement
HRSN	health-related social need
IG	intervention group
IPV	interpersonal violence
IT	information technology
MCO	managed care organization
MOA	memorandum of agreement
MOU	memorandum of understanding
NHANES	National Health and Nutrition Examination Survey
PCP	primary care provider
PHQ-2	Patient Health Questionnaire-2
QCA	qualitative comparative analysis
QI	quality improvement
ROI	return on investment
SDOH	social determinant of health
SNAP	Supplemental Nutrition Assistance Program
TA	technical assistance
T-MSIS	Transformed Medicaid Statistical Information System
WIC	Women, Infants, and Children




Executive Summary

In 2017, the Center for Medicare and Medicaid Innovation launched the Accountable Health Communities (AHC) Model. This model tested whether connecting Medicare and Medicaid beneficiaries to community-based service providers that address health-related social needs (HRSNs)—adverse social conditions that affect health and health care expenditures—could improve health outcomes and reduce health care costs.

The Innovation Center funded entities known as bridge organizations to launch the AHC Model in communities across the country. Bridge organizations collaborated with clinical delivery sites (CDSs), community

Key Takeaways

- The AHC Model significantly affected expenditures and hospital use, even though only 40% of those navigated had at least one HRSN resolved. This may be because navigators helped beneficiaries better access health care and helped in other ways (for example, provided reminders for upcoming mental health appointments).
- Health care impacts were more pronounced for beneficiaries in underserved racial or ethnic populations and beneficiaries with diabetes and mental health conditions.

(continued)

service providers (CSPs), state Medicaid agencies, and other community stakeholders to implement this model. The Innovation Center originally funded 32 bridge organizations, but four voluntarily terminated their participation during the model. 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 through April 2023.

Under the model, participating bridge organizations screened community-dwelling Medicare and Medicaid beneficiaries who lived in their geographic target area for five core needs: housing instability, food insecurity, problems with transportation, difficulties with utilities, and interpersonal violence. Beneficiaries were eligible for community service navigation if they had one or more of the five core HRSNs and self-reported having two or more emergency department (ED) visits in the 12 months before screening. These eligibility criteria were intended to identify high-risk beneficiaries who could benefit from the AHC Model. Medicare and Medicaid beneficiaries in both fee-for-service (FFS) and managed care were eligible for the model.

Bridge organizations participated in one of two tracks (**Exhibit ES-1**). The Assistance Track tested whether navigation assistance, in which navigators were employed to help make connections with community services, increased HRSN resolution and reduced health care expenditures and unnecessary use. The Alignment Track tested whether navigation assistance combined continuous quality improvement (CQI) activities—activities that engaged key stakeholders with the goal of better aligning community resources with community needs—resulted in greater increases in HRSN resolution and greater reductions in health care expenditures and quality of care than navigation assistance alone. Both tracks provided HRSN screening, community referrals, and navigation to community services. The Alignment Track, however, also included activities (for example, CQI-informed gap analyses, advisory boards) to build community services' capacity to align it with the community's service needs.

This report focuses on several new analyses to answer previously unanswered research questions. We used qualitative comparative analysis to better understand which bridge organization and community characteristics were associated with better implementation outcomes. Implementation outcomes included higher levels of population reach through screening, connection to CSPs, and HRSN resolution and a higher likelihood of being able to sustain the AHC Model. For this report, we also conducted a comprehensive model fidelity analysis to understand the extent to which bridge organizations met overall and Alignment Track–specific model requirements. We also conducted new quantitative analyses to identify the beneficiary-level characteristics associated with a greater probability of accepting navigation, having at least one HRSN resolved, or having all HRSNs resolved. These analyses

Key Takeaways (continued)

- AHC bridge organizations screened more than 1 million Medicare and Medicaid beneficiaries through January 2023.
- Nearly 40% of screened beneficiaries had at least one HRSN, and 58% had more than one HRSN.
- Almost 20% of those screened were eligible for navigation. Among those eligible for navigation, 87% were low-income individuals enrolled in Medicaid only or dually enrolled in Medicare and Medicaid.
- Almost 80% of navigation-eligible beneficiaries accepted navigation, and 40% of those navigated had at least 1 need resolved.
- Navigation acceptance and HRSN resolution were higher for some subpopulations, including beneficiaries in underserved racial or ethnic populations and beneficiaries with diabetes and mental health conditions.
- Bridge organizations met most of the requirements of the model. However, only a few bridge organizations engaged with state Medicaid agencies.
- Most bridge organizations continued to use COVID-19 flexibilities in screening and navigation approaches, allowing navigators to tailor navigation to individual beneficiary needs and preferences.
- Advisory boards benefited from beneficiary participation. However, it was difficult to recruit and retain beneficiary members.

(continued)

complement and add rigor to new claims-based analyses of health care impacts among key beneficiary-level subpopulations.

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

Elements of the Model	Assistance Track	Alignment Track
Universal screening of all community-dwelling beneficiaries who sought care from participating clinical delivery sites or other designated sites.	✓	✓
Standardized screening tool for HRSNs that CMS developed to determine eligibility. Bridge organizations also had the option to screen for supplemental HRSNs.	✓	✓
Community referral summary, a list of resources tailored to the beneficiary's unmet HRSNs. Populated from the **Community Resource Inventory**, a database of community service providers updated at least every 6 months.	✓	✓
Randomization of navigation-eligible beneficiaries into an intervention group or control group.	✓	
Navigation involving in-depth assessment, planning, referral to community services, and follow-up until needs were resolved or determined to be unresolvable.	✓	✓
Community-level continuous quality improvement that included an **advisory board** to ensure resources were available to address HRSNs, data sharing to inform a **gap analysis**, and a **quality improvement plan**.		✓

Definitions: CMS = Centers for Medicare and Medicaid Services; HRSN = health-related social need.

The primary data in this report are comprehensive. Likewise, this report includes screening and navigation data through the end of all no-cost extension periods (April 2023). At the time of writing, claims data were not yet available for the entire performance period. Medicaid claims were available through December 2021, FFS Medicare claims were available through December 2022, and Medicare Advantage Encounter Records were available through December 2020.

Key Takeaways (continued)

- Addressing transportation problems may make it easier to connect beneficiaries to resources and address other HRSNs.
- Many bridge organizations were optimistic about sustaining screening and navigation activities after the AHC Model.

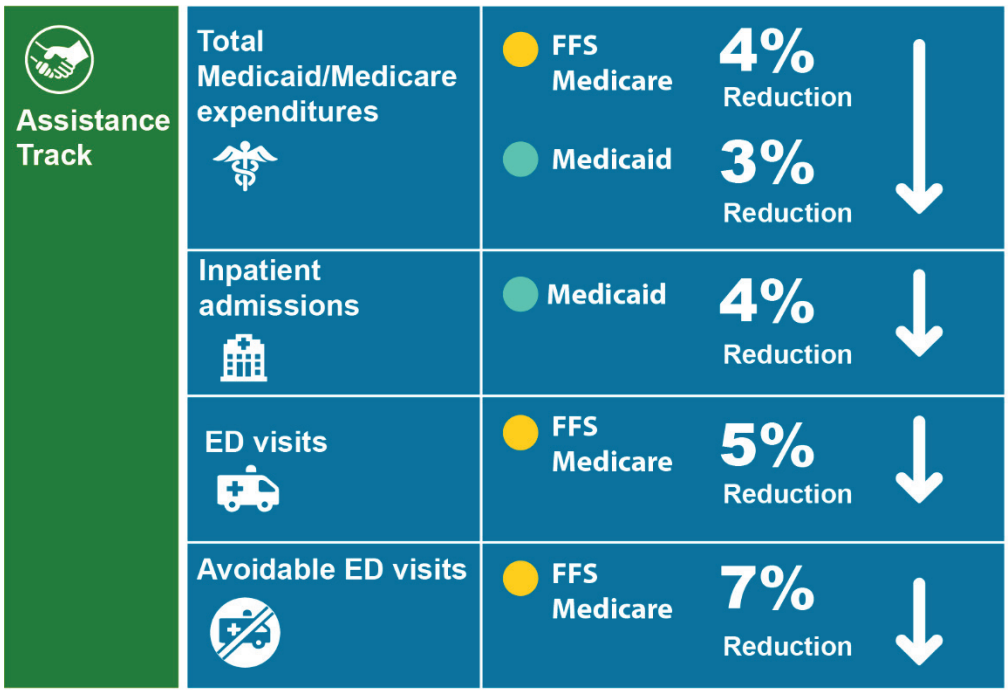
Overview of Findings

The AHC Model Reduced Total Health Care Expenditures and Improved Some Quality of Care Outcomes

Medicaid and FFS Medicare beneficiaries in the Assistance Track intervention group who were eligible to receive navigation had lower total health care expenditures than beneficiaries who were randomized to the control group.

There also were improvements in several quality-of-care outcomes. Medicaid beneficiaries in the Assistance Track intervention group had fewer inpatient admissions than beneficiaries in the control group. FFS Medicare beneficiaries in the Assistance Track intervention group had fewer ambulatory care sensitive condition admissions, ED visits, and avoidable ED visits than beneficiaries in the control group (**Exhibit ES-2**).

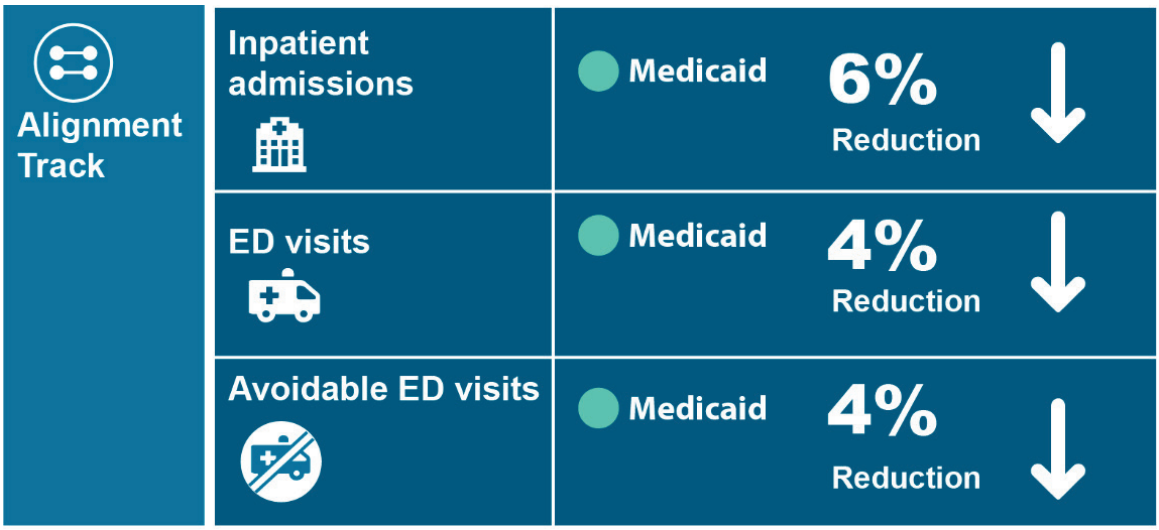
Exhibit ES-2. Assistance Track Impacts on Expenditures and Hospital Use



Sample Size: 30,452 Medicaid beneficiaries and 10,517 FFS Medicare beneficiaries in the intervention group.
Methods: Weighted ordinary least squares estimated impacts on total Medicaid/Medicare expenditures. Weighted Poisson estimated impacts on inpatient admissions, ED visits, and avoidable ED visits.
Weight Variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files and Medicare claim files.
Time Frame: Medicaid data cover May 2018 through December 2021; FFS Medicare data cover May 2018 through December 2022.
Definitions: ED = emergency department; FFS = fee-for-service.
Other Notes: The percentage reduction is the impact estimate as a percentage of the Assistance Track control group mean for the outcomes in the 12 quarters after screening (Medicaid) or the 16 quarters after screening (FFS Medicare). All impacts are statistically significant at a threshold p-value of .10.

Although we observed fewer statistically significant quality-of-care impacts in the Alignment Track, Medicaid beneficiaries in the Alignment Track did have significant reductions in inpatient admissions, ED visits, and avoidable ED visits compared with the comparison group (**Exhibit ES-3**).

Exhibit ES-3. Alignment Track Impacts on Hospital Use



Sample Size: 61,815 Medicaid beneficiaries and 20,608 FFS Medicare beneficiaries in the intervention group.
Methods: Weighted ordinary least squares estimated impacts on total Medicaid/Medicare expenditures. Weighted Poisson estimated impacts on inpatient admissions, ED visits, and avoidable ED visits.
Weight variable: Propensity score analysis weight multiplied by the number of months during the quarter the beneficiary was eligible for Medicaid or FFS divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files and Medicare claim files.
Time Frame: Medicaid data cover May 2018 through December 2021; FFS Medicare data cover May 2018 through December 2022.
Definitions: ED = emergency department; FFS = fee-for-service.
Other Notes: The percentage reduction is the overall impact estimate as a percentage of the Alignment Track intervention group's mean for the outcomes in the 12 quarters before screening. All impacts are statistically significant at a threshold p-value of .10.

Across both Medicaid and FFS Medicare beneficiaries and both tracks, there were no statistically significant differences or consistent trends in other quality-of-care measures, including an asthma medication ratio, the percentage of beneficiaries who were treated for respiratory illnesses, antidepressant medication management, and initiation of alcohol and other drug treatment. We expected that these measures might be affected by the model because they are related to the HRSNs that beneficiaries have. For example, low-quality housing could exacerbate asthma and lead to additional respiratory illnesses. Thus, addressing housing needs could have resulted in improvements in these measures. Similarly, resolving HRSNs could reduce external stressors, which in turn could improve beneficiaries' ability to seek and adhere to treatment for mental health conditions such as depression and substance use disorders.

Perceived changes in health or quality of life did not differ between the Assistance Track intervention and control group or between the Alignment Track intervention and the comparison group.

Navigation Acceptance, HRSN Resolution, and Health Care Impacts Differed for Underserved Racial/Ethnic Populations and Beneficiaries with Chronic or Potentially Disabling Conditions

Navigation acceptance and HRSN resolution were higher for some subpopulations. Relative to White beneficiaries, Black and Hispanic beneficiaries were more likely to accept navigation and were more likely to have at least one need resolved. After controlling for race/ethnicity, beneficiaries with multiple HRSNs were also more likely to accept navigation and have at least one need resolved than those with one HRSN. Although beneficiaries with

diabetes were not more likely to accept navigation than those without diabetes, these beneficiaries were more likely to have at least one need resolved.

AHC may have reduced disparities in access to care, health, and health care outcomes, particularly for underserved racial/ethnic populations and for those with chronic conditions. Health care impacts were more pronounced for these subpopulations:

- Non-White and/or Hispanic FFS Medicare beneficiaries in the Assistance Track had larger reductions in total Medicare expenditures, ED visits, avoidable ED visits, inpatient admissions, and unplanned readmissions than non-Hispanic White beneficiaries (**Exhibit ES-4**).
- Medicaid beneficiaries in the Assistance Track with multiple HRSNs had larger reductions in total Medicaid expenditures, ED visits, avoidable ED visits, and inpatient admissions than those with one HRSN (**Exhibit ES-5**).
- FFS Medicare beneficiaries in the Assistance Track who had diabetes had larger reductions in total Medicare expenditures, ED visits, avoidable ED visits, inpatient admissions, and unplanned readmissions than those without diabetes (**Exhibit ES-4**).
- FFS Medicare beneficiaries in the Assistance Track who had pulmonary disease had larger reductions in total Medicare expenditures, ED visits, and avoidable ED visits than those without pulmonary disease (**Exhibit ES-4**).
- Medicaid beneficiaries in the Assistance Track who had a diagnosed major depressive disorder had larger reductions in avoidable ED visits, all-cause inpatient admissions, and unplanned readmissions than those without major depressive disorders (**Exhibit ES-5**).

Health care impacts did not differ for any subpopulation of Medicaid beneficiaries in the Alignment Track. However, in that track, FFS Medicare beneficiaries with chronic conditions experienced more-pronounced impacts than FFS Medicare beneficiaries without chronic conditions.

Exhibit ES-4. Assistance Track Impacts on Expenditures and Use for Selected FFS Medicare Subpopulations

Subpopulation		Total Expenditures	ED Visits	Avoidable ED Visits	Inpatient Admissions
Overall Impact for Assistance Track		↓	↓	↓	NS
	Non-White and/or Hispanic beneficiaries	↓	↓	↓	↓
	Non-Hispanic White beneficiaries	NS	↑	NS	NS
Is there a significant difference between subpopulations?		**Yes**	**Yes**	**Yes**	**Yes**
	Beneficiaries with pulmonary disease	↓	↓	↓	NS
	Beneficiaries without pulmonary disease	NS	↑	NS	NS
Is there a significant difference between subpopulations?		**Yes**	**Yes**	**Yes**	No
	Beneficiaries with diabetes	↓	↓	↓	↓
	Beneficiaries without diabetes	NS	↑	NS	↑
Is there a significant difference between subpopulations?		**Yes**	**Yes**	**Yes**	**Yes**

↓ As expected, within the subpopulation, beneficiaries in the Assistance Track intervention group had lower expenditures or fewer visits or stays in the first 3 years after screening than beneficiaries in the control group.

↑ Contrary to expectations, within the subpopulation, beneficiaries in the Assistance Track intervention group had higher expenditures or more visits or stays in the first 3 years after screening than beneficiaries in the control group.

NS Within the subpopulation, use or expenditures in the first 3 years after screening did not differ between beneficiaries in the Assistance Track intervention group and beneficiaries in the control group.

Note: All differences indicated between groups had a p-value less than 0.10.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.
Weight Variable: Number of months during the quarter the beneficiary was eligible for Medicaid divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS).
Time Frame: May 2018–December 2021.
Definitions: ED = emergency department; FFS = fee-for-service.

Exhibit ES-5. Assistance Track Impacts on Expenditures and Use for Selected Medicaid Subpopulations

Subpopulation		Total Expenditures	ED Visits	Avoidable ED Visits	Inpatient Admissions
Overall Impact for Assistance Track		↓	NS	NS	↓
	Beneficiaries with multiple HRSNs	↓	↓	↓	↓
	Beneficiaries with one HRSN	↓	↑	↑	↑
Is there a significant difference between subpopulations?		No p = .72	**Yes p < .01**	**Yes p < .01**	**Yes p < .01**
	Beneficiaries with major depression	↑	NS	↓	↓
	Beneficiaries without major depression	↓	NS	↑	NS
Is there a significant difference between subpopulations?		**Yes p < .01**	No p = .12	**Yes p = .05**	**Yes p < .01**

↓ As expected, within the subpopulation, beneficiaries in the Assistance Track intervention group had lower expenditures or fewer visits or stays in the first 3 years after screening than beneficiaries in the control group.

↑ Contrary to expectations, within the subpopulation, beneficiaries in the Assistance Track intervention group had higher expenditures or more visits or stays in the first 3 years after screening than beneficiaries in the control group.

NS Within the subpopulation, use or expenditures in the first 3 years after screening did not differ between beneficiaries in the Assistance Track intervention group and beneficiaries in the control group.

Note: All differences indicated between groups had a p-value less than 0.10.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.
Weight Variable: Number of months during the quarter the beneficiary was eligible for Medicaid divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS).
Time Frame: May 2018–December 2021.
Definitions: ED = emergency department; HRSN = health-related social need.

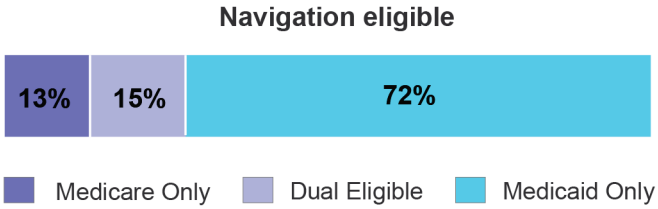
More Than 1 Million Medicare and Medicaid Beneficiaries Were Screened for HRSNs, and 18% Were Eligible to Receive Navigation Services

AHC Model participants screened more beneficiaries and identified a larger proportion of navigation-eligible beneficiaries than expected. Between May 2018 and January 2023, bridge organizations screened 1,114,099 unique Medicare and Medicaid beneficiaries. Thirty-seven percent of screened beneficiaries had one or more of the five core HRSNs. Eighteen percent of screened beneficiaries also reported having two or more ED visits in the 12 months before screening and were thus eligible for navigation. Navigation-eligible beneficiaries most commonly reported food insecurity (69%), housing instability (53%), and transportation problems (44%).

They reported utility difficulties (35%) and interpersonal violence (6%) less frequently. More than half (58%) of navigation-eligible beneficiaries reported more than one core HRSN.

Most navigation-eligible individuals (87%) were enrolled in Medicaid only or dually enrolled in Medicare and Medicaid (**Exhibit ES-6**).

Exhibit ES-6. Payer Type Among Navigation-Eligible Beneficiaries



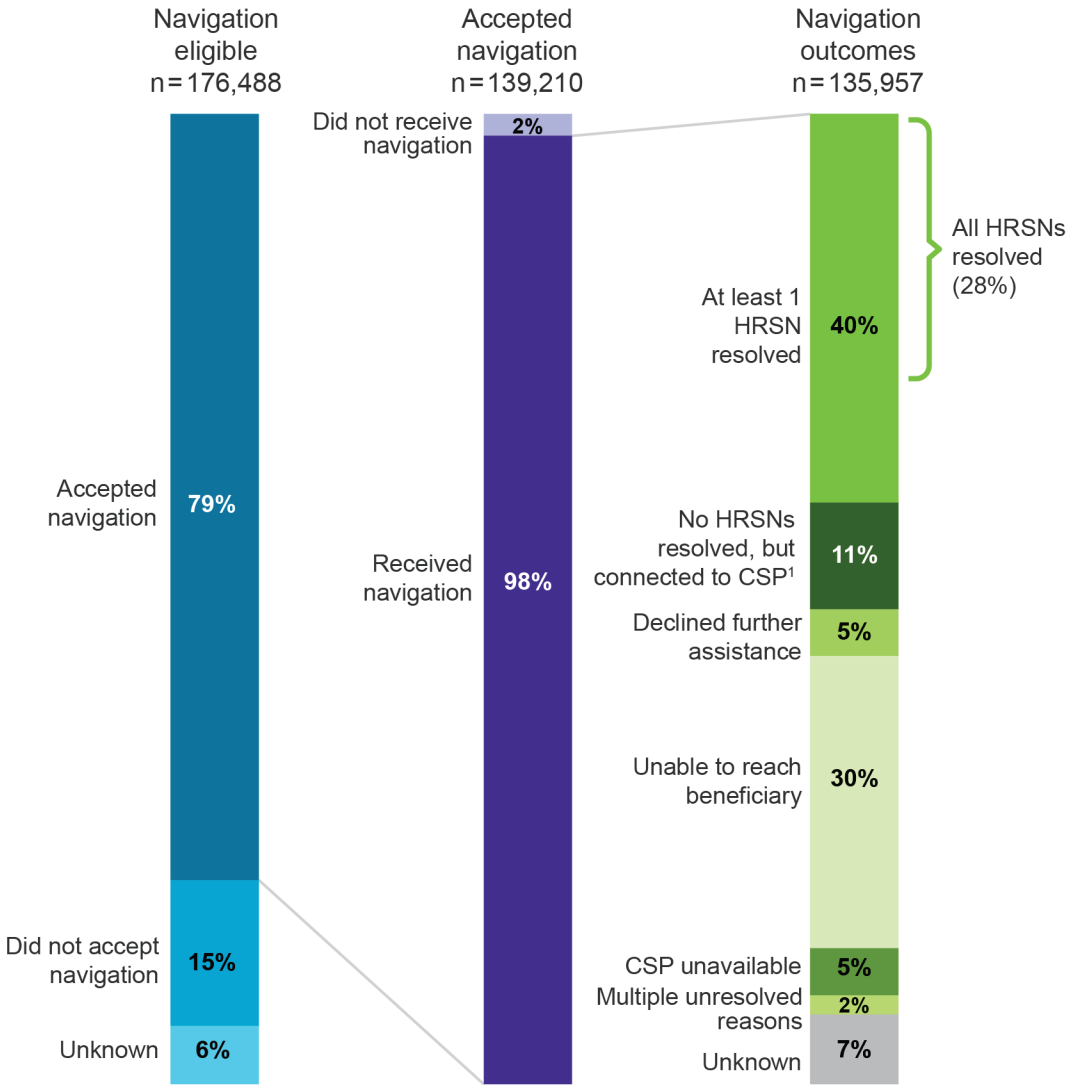
Source: AHC screening, referral, and navigation data; Medicare and Medicaid enrollment files.
Time Frame: May 2018–April 2023

Among those who were navigation eligible, we observed some important track-level differences. Compared with those in the Assistance Track, navigation-eligible beneficiaries in the Alignment Track were more likely to be from underserved racial/ethnic populations, enrolled in Medicaid only, have a behavioral health condition, and have multiple HRSNs. Navigation-eligible beneficiaries also struggled with poor health and reported low quality of life. Almost half screened positive for likely depression.

Approximately Four out of Five Eligible Beneficiaries Agreed to Navigation

Acceptance of navigation remained high. As shown in **Exhibit ES-7,** 79% of eligible beneficiaries opted into navigation, and among those, 98% received navigation. Among those navigated, 40% had at least one HRSN documented as resolved (including 28% who had all their needs resolved). About 11% were connected to a CSP for at least one HRSN but had no HRSNs resolved. About half of navigated beneficiaries (49%) were not connected to a CSP for any HRSNs and had no HRSNs resolved.

Exhibit ES-7. Navigation-Eligible Beneficiaries' Navigation Acceptance and Navigation Outcomes



Source: AHC screening, referral, and navigation data; Medicare and Medicaid enrollment files.
[1] Connected to CSP for at least 1 HRSN.
Time Frame: May 2018–April 2023.
Definitions: CSP = community service provider; HRSN = health-related social need.

Sociodemographic differences between the two tracks were the primary drivers of track-level differences in the acceptance of navigation.

Transportation needs were a key predictor for connection to CSPs and HRSN resolution. Bridge organizations that had fewer beneficiaries with a transportation need had higher levels of beneficiary connections to CSPs, had a higher likelihood of resolving other needs, or both. This suggests that addressing transportation problems may make it easier to address other needs.

Some beneficiaries experienced persistent or newly emerging HRSNs over time. When beneficiaries were surveyed approximately 6 months after screening, almost half reported at least one additional HRSN that was not reported during their initial HRSN screening. Moreover, as many as 34% of beneficiaries who were screened multiple times

had the same need across multiple screenings, though this varied by type of need. This suggests that HRSNs are complicated to resolve and require longer-term management, especially for more-persistent needs.

Most Bridge Organizations Adhered to AHC Model Requirements

Overall, bridge organizations met the AHC Model requirements specified by the Innovation Center (**Exhibit ES-8**). At least 24 bridge organizations met the following model requirements: developed a health resource equity statement, used a comprehensive community resource inventory, distributed tailored community referral summaries to beneficiaries, and exchanged screening and navigation data with community stakeholders.

Exhibit ES-8. Most Bridge Organizations Implemented the AHC Model Requirements with High Fidelity

Fidelity Criteria	Number of Bridge Organizations With Highest Fidelity Score for Each Fidelity Criterion
Developed an HRES Used a comprehensive CRI Distributed tailored CRS Exchanged screening and navigation data	24 or more
Developed patient-centered action plans	14
Involved state Medicaid agency	7 (1 Assistance Track, 6 Alignment Track)

Definitions: CRI = community resource inventory; CRS = community referral summary; HRES = health resource equity statement.
Note: Bridge organizations were expected to meet all the fidelity criteria in this graphic. Accordingly, the number of bridge organizations in the second column should not sum to 28 across rows. Because of missing data, 25 to 28 bridge organizations could be evaluated for each criterion shown. Results are shown by track for only the final criterion because we did not observe significant differences in fidelity by track for the other criteria.

About half of the bridge organizations met the model requirement to develop patient-centered action plans for at least 90% of their beneficiaries. Bridge organizations had lower fidelity to the requirement to involve their state Medicaid agencies, with only one bridge organization in the Assistance Track and six bridge organizations in the Alignment Track meeting this requirement.

Most Alignment Track Bridge Organizations Also Met Track-Specific Requirements

Alignment Track bridge organizations had some additional model requirements: conducting an annual analysis of gaps in the availability of community services, developing a quality improvement (QI) plan to address identified gaps, convening an advisory board with specific membership requirements (for example, clinicians, CSPs, beneficiaries, Medicaid officials), and sharing HRSN screening and navigation data with the advisory board.

Alignment Track QI plans varied in strength and fidelity to the required components, but nearly all improved their QI planning over time.

Although the Assistance Track did not require an advisory board, most Assistance Track bridge organizations had a formal or informal one. However, Assistance Track advisory boards did not share data as widely as advisory boards for bridge organizations in the Alignment Track.

AHC leaders reported that engaging beneficiaries and their caregivers was the most challenging aspect of their advisory boards. Among the few bridge organizations that had beneficiary representation on their advisory boards, many of these beneficiary representatives did not have lived experiences with the core HRSNs of the model. Advisory boards could involve these individuals in other ways, such as including representatives from beneficiary advocacy groups. Financial assistance could also overcome some of beneficiaries' barriers to advisory board engagement.

Bridge Organizations Kept COVID-19 Flexibilities That Made the Model More Efficient and Consistent With Beneficiary Needs and Preferences

The COVID-19 public health emergency provided important lessons learned about how to best implement social need screening, such as allowing for flexibility in screening, referral, and navigation approaches that are tailored to the individual beneficiary. For example, allowing screening to occur asynchronously from patient visits during the pandemic was a huge opportunity for bridge organizations. To increase screening numbers, some bridge organizations gave screening staff a list of all Medicare and Medicaid patients who received services at the hospital or ED.

After the initial COVID-19 pandemic period, most bridge organizations implemented a hybrid approach to screening, allowing for a mix of in-person and virtual screening.

Perceptions of the effectiveness of in-person versus virtual screening were mixed. On one hand, screeners reported that some beneficiaries benefited from face-to-face interactions, which allowed screeners to better communicate empathy with the beneficiary and build rapport. Screeners also reported that in-person screening gave them more perceived authority, as beneficiaries saw them as being affiliated with the provider organization where they were embedded. On the other hand, screeners reported that some beneficiaries may have preferred virtual screening, as it may have offered more privacy to discuss social needs. Ultimately, the data suggest that a hybrid approach is optimal because it provides flexibility to tailor the screening modality to individual circumstances. Similarly, navigators emphasized the importance of flexibility to tailor navigation to individual beneficiary needs and preferences.

The Gap Between Availability of Community Resources and Beneficiary Needs Was an Ongoing Challenge

Beneficiaries who received navigation services did not have a marked increase in connection to community services or HRSN resolution relative to those in the control group. This may be in part because of gaps between community resource availability and beneficiary needs. The most common gaps were for housing and transportation. During the pandemic, awareness and availability of existing resources, especially for food needs, increased, as did coordination between organizations. However, pandemic-related increases in resource availability were temporary.

AHC leaders and navigators in rural communities reported having fewer available resources in their communities than in urban communities. Across both rural and urban communities, lack of transportation resources was a primary barrier to accessing other services.

Bridge organizations that were able to achieve a high percentage of CSP connections or HRSN resolutions also had high resource availability coupled with low community need. This finding highlights the importance of not only identifying needs in the community but also ensuring the resources are available to meet those needs.

Navigators Went Above and Beyond Their Envisioned Role

Even though beneficiaries' connections to community services and HRSN resolution did not markedly increase, the model had favorable impacts on health care expenditures and use for both FFS Medicare and Medicaid beneficiaries. These favorable impacts indicate that navigators did a good job of building rapport with beneficiaries and were able to use that trust to help patients navigate the health care system more effectively.

There also were many stories of navigators going above and beyond to help beneficiaries. For example, one navigator delivered food from a local food pantry to a client with food needs. Respondents perceived these kinds of actions as crucial to the success of the model, and they could have been a key driver for the observed impacts on health care outcomes. Other examples of navigators going above and beyond included coaching beneficiaries on how to get unemployment benefits and search for a job, helping them develop budgets, teaching them financial literacy basics, and helping them remember mental health appointments.

Navigation was valuable in intangible ways as well. Beneficiaries felt that they had an advocate who was checking in on them to support them. During the pandemic, when many people were feeling isolated, beneficiaries were particularly receptive to navigators reaching out. Beyond the pandemic, beneficiaries still appreciated having someone "in their corner."

> "It's just knowing that **someone's in your corner** having a navigator there to, 'Oh, I've tried to reach out to this one. Do you have any other options?' So I think you can provide [a referral] to them, but it's really are [navigators] willing **to go that extra step and find something if that doesn't work**?"
>
> — Bridge Organization Navigator

Beneficiaries often also received support from medical/health insurance workers or other caseworkers. This raised concerns about duplication of efforts with the navigators. Despite this concern, however, many navigators reported attempting to collaborate and said that this collaboration benefited their clients.

Many Bridge Organizations Were Optimistic About Sustaining the AHC Model

Stakeholders emphasized the importance of model sustainability and described efforts to sustain screening and navigation. As with any model, a key component of sustainability is the ability to continue funding work. Many bridge organizations reported reaching out to, or being approached by, health plans who wanted to support their work. Other bridge organizations were thinking about ways to integrate screening and navigation into other existing programs.

Three bridge organization characteristics were associated with a high likelihood of a being able to sustain screening and navigation:

- Being in the Alignment Track
- Having fewer staff turnover challenges
- Having previously participated in other value-based initiatives

Having a high number of unpaid screeners did not lead to high sustainability scores. This may reflect that although having volunteer or intern screeners is less resource-intensive than employing screeners, ultimately, the screening role requires more stability and consistency of effort than volunteer staff with higher turnover rates can offer. Beyond funding, interview participants noted that developing strong relationships between the CDSs and CSPs was a key component of the AHC Model, and one that they perceived would make the model more feasible to sustain.

Last, data collection and sharing were important drivers of sustainability. Sharing data often helped stakeholders better demonstrate that screening and navigation were having impacts on health care outcomes. This may make it easier to secure alternative sources of funding and engage with new partnerships.

Finally, bridge organizations emphasized that more funding, specifically funding for CSPs, would be helpful. Gaps in resource availability were cited as a key barrier to addressing HRSNs.

Chapter 1: Introduction

In April 2017, the Center for Medicare and Medicaid Innovation (Innovation Center) launched the Accountable Health Communities (AHC) Model to test whether identifying and addressing health-related social needs (HRSNs) improves health outcomes and reduces health care costs and unnecessary use.

The AHC Model was a transformative model in that it brought a new focus on HRSNs 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 delivery sites (CDSs), community service providers (CSPs), state Medicaid agencies, and other community stakeholders. The types of bridge organizations varied across participating communities; they included health systems and hospitals, health information technology providers, academic institutions, payers, nonprofit organizations, and a public health agency. 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).[1]

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

The AHC Model's three main goals were as follows:

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

Community-dwelling Medicare and Medicaid beneficiaries who lived in a bridge organization's Geographic Target Area were screened before, during, or after a clinical encounter using a standard AHC HRSN 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 HRSNs and two or more emergency department (ED) visits in the 12 months before screening were eligible to receive navigation assistance to address their HRSNs.

The model tested whether two interventions could affect health care use and costs by helping Medicare and Medicaid beneficiaries resolve their HRSN needs. 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 1-1**).

- **The Assistance Track** tested whether navigation assistance connecting navigation-eligible beneficiaries with community services increases HRSN resolution and reduces health care costs and unnecessary use.
- **The Alignment Track** added engagement of key stakeholders in community-level continuous quality improvement (CQI) to align community service capacity with the community's service needs. The Alignment Track tested whether navigation assistance combined with engaging key stakeholders in CQI increases HRSN resolution and reduces health costs and use beyond navigation assistance alone.

Exhibit 1-1. 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 site or other designated sites	✓	✓
Standardized HRSN screening tool that Centers for Medicare and Medicaid Services developed to determine beneficiary eligibility for model. May also screen for supplemental HRSNs	✓	✓
Community referral summary, a list of resources tailored to the beneficiary's unmet HRSNs. Populated from the **Community Resource Inventory**, a database of CSPs updated at least every 6 months	✓	✓

(continued)

Exhibit 1-1. Elements of the AHC Model by Track (continued)

Elements of the Model	Assistance Track	Alignment Track
Randomization of navigation-eligible beneficiaries into an intervention group or control group	✓	
Navigation, which involves 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 includes an advisory board to ensure resources are available to address HRSNs, data sharing to inform a gap analysis, and a quality improvement plan		✓

Definitions: CMS = Centers for Medicare and Medicaid Services; CSP = community service provider; HRSN = health-related social need.

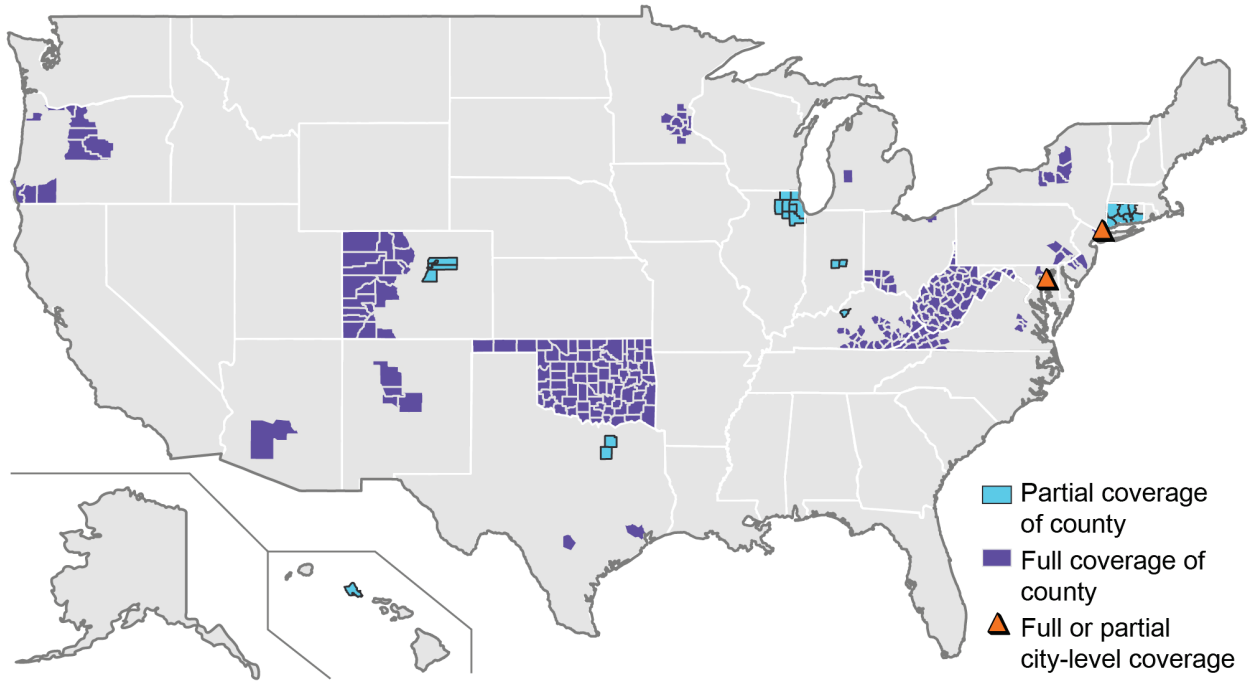
The Innovation Center contracted with RTI International in September 2018 to evaluate the AHC Model's impact on these outcomes and the factors contributing to that impact. Beneficiary screening began in summer 2018.

This Third Evaluation Report, prepared by RTI, details the AHC Model's progress toward achieving its goals and influencing 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 CDSs, communities' capacity and resources to address HRSNs, 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. This Third Evaluation Report builds 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 1-2**). 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 1-2. AHC Model Geographic Target Areas



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

Evaluation Research Objectives

The research objectives we addressed in this report focused on the AHC Model's implementation context and the model's impacts for Medicaid, FFS Medicare, and Medicare Advantage beneficiaries. This report, like the reports before it, does not address each research objective in its entirety, but adds to the existing knowledge and informs the direction of the remaining reports. The full set of research questions for each objective addressed in this report is in **Appendix A**.

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

Research Objectives for the AHC Evaluation	
Context 	1. Examine the context within which the AHC Model was launched for the purpose of understanding the: a. implementation of the model, b. characteristics of bridge organizations associated with model success or failure, and c. generalizability of model impacts across a wider population.
Implementation 	2. Examine how the AHC Model was launched to understand: a. how variations or similarities in launch affect success or failure and 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 and costs.
Analysis 	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

To fully understand the context in which the AHC Model operates and assess any impacts on key outcomes, the evaluation collected data from the following major sources (**Exhibit 1-3**):

- Publicly available community data (for example, American Community Survey, the Area Health Resources File, County Health Rankings)
- AHC screening and navigation data
- Medicaid and Medicare claims and encounter data
- Key informant interviews
- Surveys of beneficiaries and participating organizations

Using multiple sources of data allowed us to examine the consistency of the findings and the factors that explain them. However, even with multiple sources of data corroborating various findings, the evaluation had notable general limitations. First, not all data represented the same period. Not all data were available for the period we analyzed, which tempered our ability to make definitive judgments. The Medicaid claims data, for example, were nearly a year behind the Medicare claims data. Second, survey and qualitative data may not represent all stakeholders' views. Although we made an effort to identify those best able to address our queries, staff turnover, changes in roles and responsibilities, and survey nonresponse among model stakeholders left gaps in data. Third,

the Alignment Track analyses of health care costs and use outcomes may not have had a sample size large enough to determine whether the model had impacts on these outcomes. Specifically, differences in the design of the two tracks required us to use a more complex evaluation methodology in the Alignment Track analyses of health care costs and use outcomes. This more complex evaluation methodology requires larger sample sizes to have sufficient statistical power.[2] Statistical power may have been lower for the Alignment Track FFS Medicare analyses compared to Alignment Track Medicaid analyses because there were fewer FFS Medicare beneficiaries than Medicaid beneficiaries in the Alignment Track. Having multiple data sources mitigates the effects of data loss from any single source's unique limitations. We discuss the limitations of individual data sources in the appendices.

Exhibit 1-3. Data Sources Used in the Third Evaluation Report

Data Source
AHC screening and navigation data collected from bridge organizations through April 2023
Beneficiary claims and encounter data for costs and health care use measures for Medicare Advantage (through December 2020), Medicaid (through December 2021), and FFS Medicare (through December 2022)
Qualitative key informant interview data on experiences with screening, referral, and navigation and lessons learned; collected from AHC bridge organizations, CDSs, CSPs, and beneficiaries through April 2022
Beneficiary survey data on experiences with CSPs and resolution of HRSNs; collected from beneficiaries enrolled in the model through January 2022
Organizational survey data on the structural characteristics of the bridge organizations and CDSs; screening, referral, and navigation practices; staffing models; engagement with an advisory board or other governing body; and use of quality improvement methods; collected through June 2021
Advisory board member survey data about features of the board and board experiences; collected through September 2020
CSP survey data on experiences with model activities; collected from CSPs participating in the model in 2020 and 2022

Definitions: CDS = clinical delivery site; CSP = community service provider; FFS = fee-for-service; HRSN = health-related social need.

Overview of the Third Evaluation Report

This Third Evaluation Report provides insights on the launch of screening, referral, and navigation and related challenges and successes since the prior reporting period (through December 2021). Most notably, this reporting period covers implementation throughout the AHC Model, including the extension period through April 2023. This report also includes impact estimates on costs and health care use. The evaluation's findings for this report are presented as follows:

- **Chapter 2:** Characteristics and HRSNs of Navigation-Eligible Beneficiaries
  - HRSNs and sociodemographic characteristics of AHC-screened and navigation-eligible beneficiaries
  - The prevalence of select chronic and other health conditions among these beneficiaries

[2] Statistical power refers to the likelihood of a study detecting a true effect. Statistical power can be impacted by the design of an intervention or study (e.g., larger samples generally contribute to higher statistical power). Higher-powered analyses can detect more effects than lower-powered analyses.

- **Chapter 3:** Community Capacity to Address HRSNs
  - The evaluation's conceptual framework for measuring community capacity to address HRSNs
  - Changes in the resources available in AHC communities and CSP organizational capacity to address beneficiary needs
- **Chapter 4:** Implementation of Alignment
  - Implementation of alignment activities (including advisory boards, QI, and efforts to identify and address gaps in services)
  - Bridge organizations' fidelity to required alignment activities
- **Chapter 5:** Screening and Referrals
  - Final analysis of the number of beneficiaries screened and referred for HRSNs under the model
  - Effects of the COVID-19 pandemic on screening processes
  - Bridge organization, CDS, and community characteristics that contributed to higher screening rates
- **Chapter 6:** Navigation
  - Final analysis of the number of navigation-eligible beneficiaries who accepted navigation
  - Activities that connected navigation-eligible beneficiaries to community services to resolve their HRSNs
  - Bridge organizations' perspectives on the value of navigation
- **Chapter 7:** Connection to CSPs and HRSN Resolution
  - Navigation outcomes for beneficiaries
  - Navigation's effect on connecting beneficiaries to services and resolving their needs
  - Bridge organization and community characteristics associated with connection to CSP and HRSN resolution
- **Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health
  - Estimates of impacts on costs and health care use for Medicare and Medicaid beneficiaries in both tracks
  - Differences in impacts for selected underserved subpopulations
  - Impacts on beneficiary-reported health and quality of life
- **Chapter 9:** Lessons Learned
  - Bridge organizations' overall fidelity to AHC Model requirements and model sustainability
  - Recommendations for future models
- **Chapter 10:** Conclusion
  - Conclusions about the performance of the model and impacts identified through the final year of model launch




Chapter 2: Characteristics and HRSNs of Navigation-Eligible Beneficiaries

Bridge organizations served communities that varied widely in sociodemographic characteristics, reported health status, insurance coverage, and health-related social needs (HRSNs). The characteristics of Accountable Health Communities (AHCs) and beneficiaries who live in them may have influenced the implementation of the AHC Model and its effect on model outcomes.

This chapter explores characteristics and HRSNs among navigation-eligible beneficiaries. Navigation-eligible beneficiaries are community-dwelling beneficiaries with one or more core HRSNs and two or more emergency department (ED) visits in the 12 months before screening. Because a high proportion (79%) of navigation-eligible beneficiaries opted into navigation

Key Takeaways

- The AHC Model reached underserved populations.
  - Most navigation-eligible beneficiaries were Medicaid-only enrollees.
  - A majority were American Indian/Alaska Native, Asian, Hawaiian or Other Pacific Islander, and those who identify as multiple races.
  - About one-third had less than a high school education and nearly three-quarters had less than a college degree.

(continued)

services, they had similar characteristics to navigation-eligible beneficiaries (details on the characteristics of beneficiaries who opted into navigation services are included in **Appendix B).** We also include information on health and well-being from the beneficiary survey. Understanding the characteristics of the beneficiaries the AHC bridge organizations served is important to ensure that the AHC Model eligibility criteria successfully identified a high-risk beneficiary population.

Key Research Questions

- Describe the beneficiaries served under the AHC Model.
  - What were their demographic, socioeconomic, and health-related traits?
  - What were their HRSNs and risk statuses?
  - Were there key differences or similarities (for example, demographics, types of social needs identified) in the types of beneficiaries served between the two tracks, between the intervention and control groups, or across bridge organizations?

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

- AHC screening and navigation data, May 2018–April 2023
- Beneficiary survey, 2020–2022
- Medicaid claims and enrollment files, 2015–2021
- Medicare claims and enrollment files, 2015–2022
- Publicly available social deprivation index and urbanicity data

See **Appendices B** and **C** for additional details on the data used.

Key Takeaways (continued)

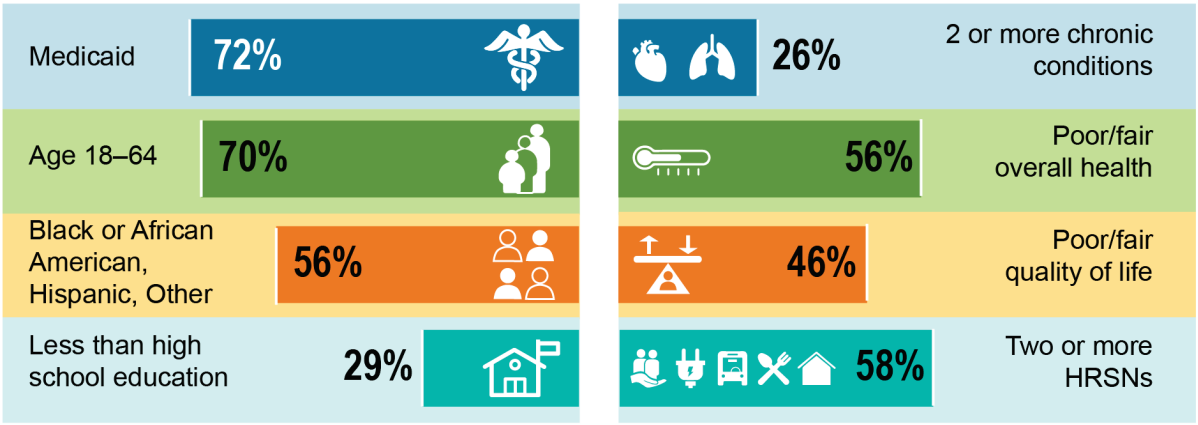
  - About one-half reported poor to fair overall health and quality of life.
  - Among beneficiary survey respondents, 45% screened positive for likely depression.
- Medicaid-only beneficiaries tended to be older and Medicare-only beneficiaries tended to be younger than the typical Medicaid and Medicare populations. The average age was 42 years old.
- About one-fourth reported two or more chronic conditions. Medicaid-only beneficiaries were more likely to have substance use disorder or depressive disorder. Medicare-only beneficiaries were more likely to have diabetes and pulmonary disease.
- The most prevalent needs were food, housing, and transportation, and more than one-half of navigation-eligible beneficiaries had multiple HRSNs.

The AHC Model Reached Underserved Populations

More than 1 million (1,114,099) unique beneficiaries were screened between May 2018 and January 2023. Of those, 18% (204,447) were eligible for navigation services (one or more core HRSNs and two or more self-reported ED visits in the 12 months prior to their screening). Navigation-eligible beneficiaries were predominantly Medicaid-only and were more likely to be non-White, middle-aged, have less than a high school education, have more than one chronic condition, and have two or more HRSNs (Exhibit 2-1).

Exhibit 2-1. Characteristics of Navigation-Eligible Beneficiaries

Most navigation-eligible beneficiaries were from underserved populations.



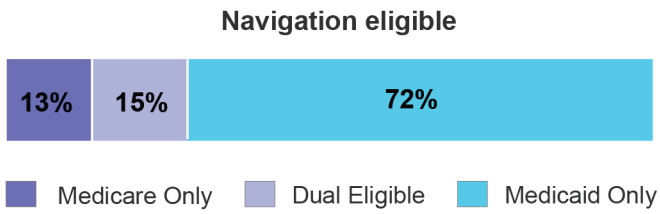
Source: AHC screening, referral, and navigation data; Medicare and Medicaid enrollment files; AHC beneficiary survey.
Time Frame: May 2018–April 2023
Other Notes: "Other" includes American Indian/Alaska Native, Asian, Hawaiian or Other Pacific Islander, and those who identify as multiple races. Education was missing for 32% of navigation-eligible beneficiaries. Number of chronic conditions was missing for 26%, race and ethnicity was missing for 4%, and less than 1% were missing payer type or age.
Definitions: HRSN = health-related social need.

Most Navigation-Eligible Beneficiaries Were Medicaid-Only Enrollees

Most navigation-eligible individuals (87%) were enrolled in Medicaid only or were dually enrolled in Medicare and Medicaid (**Exhibit 2-2**). This finding indicates that low-income beneficiaries were disproportionately likely to meet the AHC navigation eligibility criteria of having at least one HRSN and at least two ED visits in the past 12 months.

Exhibit 2-2. Payer Type Among Navigation-Eligible Beneficiaries

Most navigation-eligible beneficiaries were enrolled in Medicaid only or were dually enrolled in Medicare and Medicaid.



Source: AHC screening, referral, and navigation data; Medicare and Medicaid enrollment files.
Time Frame: May 2018–April 2023

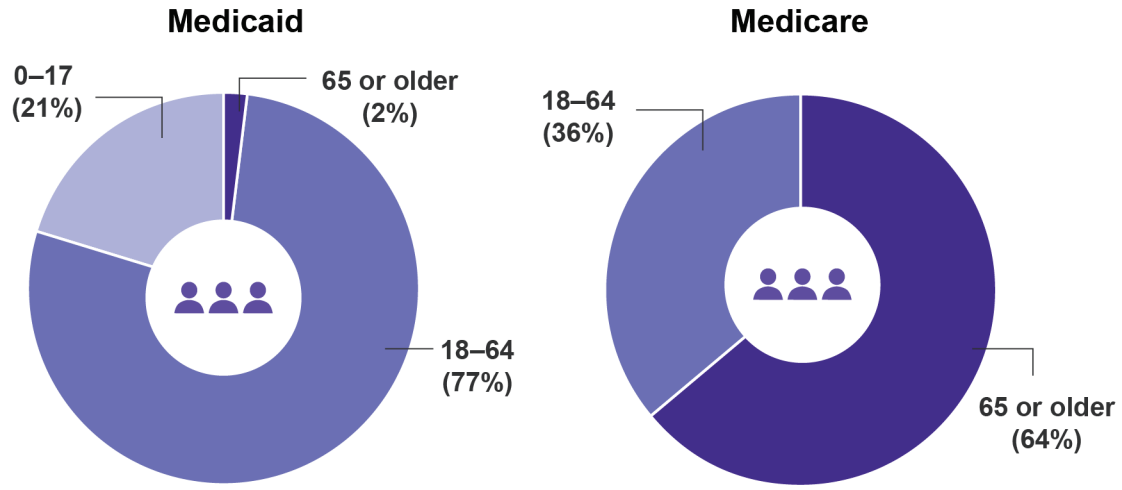
AHC Served Older Medicaid and Younger Medicare Beneficiaries Relative to the Typical Medicaid and Medicare Populations

Medicare beneficiaries 65 years of age or older who qualified for Medicare based on age were less likely to be navigation eligible than those between 18 and 64 years of age who qualified for Medicare based on disability (**Exhibit 2-3**). Adult Medicaid beneficiaries between 18 and 64 years of age were more likely to be navigation

eligible than those younger than age 18, which is consistent with the findings presented in the Second Evaluation Report.

Exhibit 2-3. Age at Screening Among Navigation-Eligible Beneficiaries by Payer Type

More than three-quarters of Medicaid-only and more than one-third of Medicare-only AHC navigation-eligible beneficiaries were 18 to 64 years of age, which is a greater proportion than typically seen in Medicaid and Medicare populations.



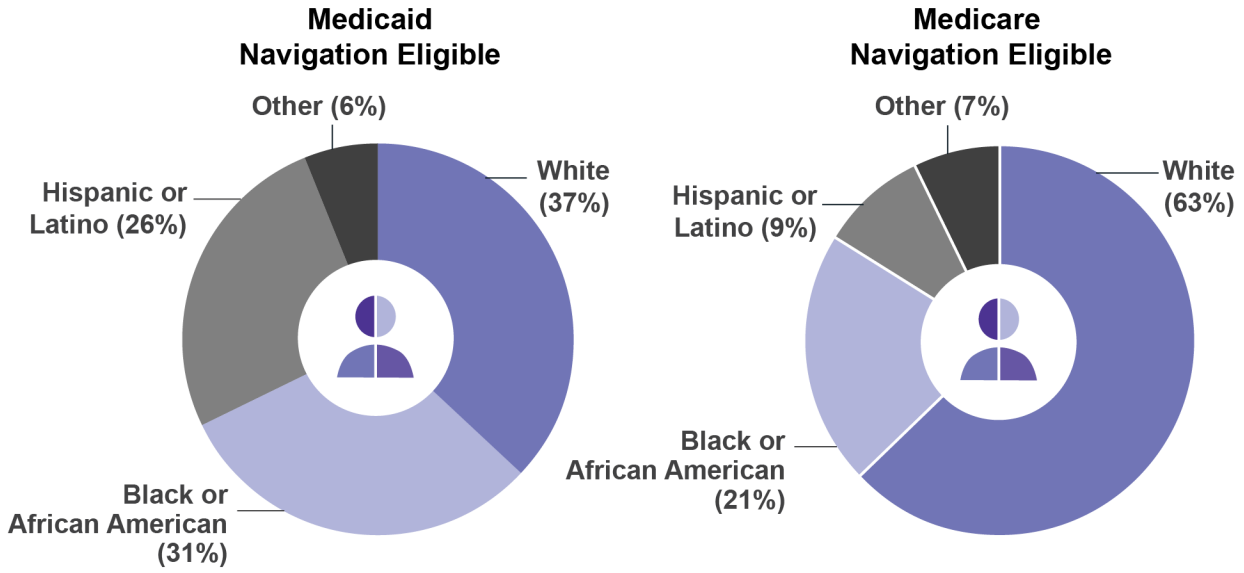
Source: AHC screening, referral, and navigation data; Medicare enrollment files, 2015–2022; Medicaid enrollment files, 2015–2021
Time Frame: May 2018–April 2023
Additional note: Medicaid beneficiaries identified as 65 years of age or older may be caused by a birth date error in the AHC screening and navigation data.

Beneficiaries in Underserved Racial and Ethnic Populations Were More Likely Than White Beneficiaries to be Navigation Eligible

The racial and ethnic mix among navigation-eligible beneficiaries also supported that navigation-eligible beneficiaries were more likely to be from underserved populations. Beneficiaries in underserved racial and ethnic populations were more likely than white beneficiaries to be navigation eligible. A greater proportion of beneficiaries in underserved racial and ethnic groups had Medicaid (63%) than Medicare (37%) (**Exhibit 2-4**). Additionally, across the 29 bridge organizations there was a broad range (4% to 94%) in the proportion of beneficiaries in underserved racial and ethnic groups. Some bridge organizations served mostly White populations, whereas others served mostly underserved racial and ethnic populations.

Exhibit 2-4. Race and Ethnicity Among Navigation-Eligible Beneficiaries by Track

Compared with Medicare beneficiaries, navigation-eligible beneficiaries with Medicaid were more likely to be Black or African American and less likely to be white.



Source: AHC screening, referral, and navigation data; Medicare enrollment files, 2015–2022; Medicaid enrollment files, 2015–2021
Time Frame: May 2018–April 2023
Note: "Other" includes American Indian/Alaska Native, Asian, Hawaiian or Other Pacific Islander, and those who identify as multiple races.

Navigation-Eligible Beneficiaries Were Less Likely to Have a High School Education

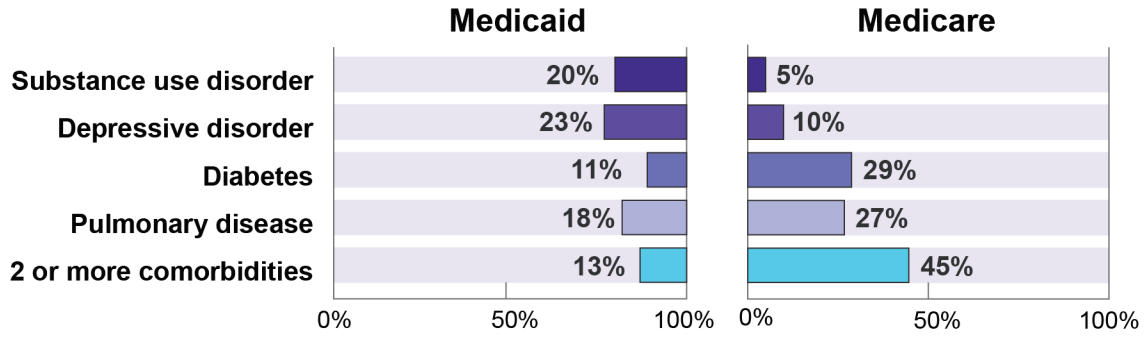
Education levels among navigation-eligible beneficiaries were also low. Across payer types, 29% had less than a high school education. The proportion of those with less than a high school education was greater for Medicaid (31%) and dually eligible (28%) beneficiaries compared to Medicare-only (20%) beneficiaries.

Chronic Conditions Among Navigation-Eligible Beneficiaries Varied by Payer Type

As noted previously, 26% of navigation-eligible beneficiaries had two or more chronic conditions. Regarding specific chronic conditions, 16% had substance use disorder, 19% had depressive disorder, 15% had diabetes, and 16% had pulmonary disease. The percentages of those with each condition differed by payer type. More specifically, a greater proportion of Medicare beneficiaries (45%) had two or more chronic conditions than Medicaid beneficiaries (13%) (**Exhibit 2-5)**. The type of chronic condition also varied by payer type. A greater proportion of Medicaid beneficiaries had substance use disorder (20%) and depressive disorder (23%) than those with Medicare (5% and 10%, respectively). A greater proportion of Medicare beneficiaries had diabetes (29%) and pulmonary disease (27%) than those with Medicaid (11% and 18%, respectively).

Exhibit 2-5. Chronic and Potentially Disabling Conditions Among Navigation-Eligible Beneficiaries by Payer Type

Chronic and potentially disabling conditions varied by payer type.



Source: AHC screening, referral, and navigation data; Medicare enrollment files, 2015–2022; Medicaid enrollment files, 2015–2021
Time Frame: May 2018–April 2023
Note: The specifications for pulmonary disease and diabetes are from the Charlson Comorbidity index. Pulmonary disease includes asthma, chronic bronchitis, emphysema, and other chronic lung disease with ongoing symptoms. Diabetes includes diabetes treated with insulin or oral hypoglycemic, but not diet alone. Gestational diabetes is excluded. The full specifications are detailed in **Appendix D**. Although the PHQ-2 is a sensitive screening tool that can be used as a first step to identify individuals with potential depressive disorders, it is not used to formally diagnose depression. It is possible that individuals who self-report depressive disorder on a survey have not been clinically diagnosed with depression. Formal diagnosis of major depressive disorder uses stricter criteria than the PHQ-2. However, one study of the sensitivity rate for identifying true positives using the PHQ-2 for clinically diagnosed major depression was 83% (McGee et al., 1999).

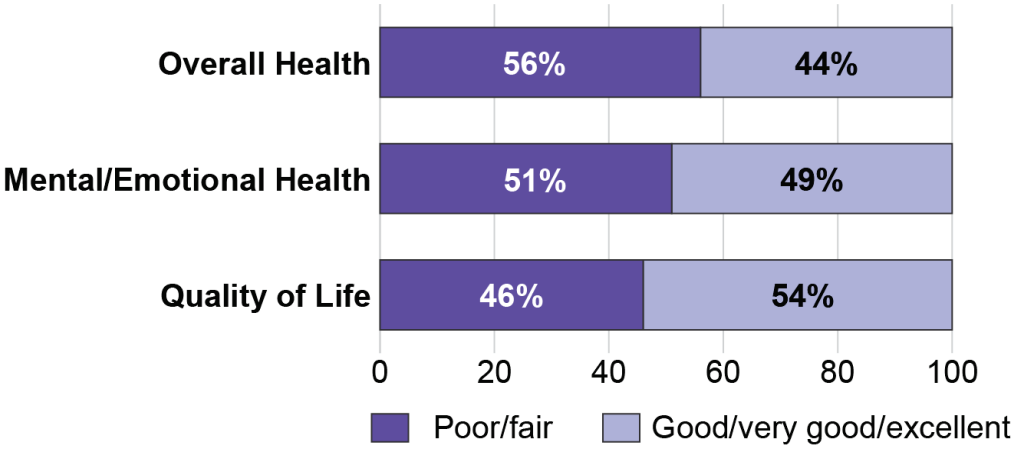
Nearly one-half (45%) of surveyed beneficiaries who completed the PHQ-2, a two-item screening tool for depression, screened positive for likely depression (data not shown). The percentage of surveyed beneficiaries who screened positive for likely depression is greater than the percentage of the broader group of navigation-eligible beneficiaries with depressive disorder in the claims data (19%).

Navigation-Eligible Beneficiaries Reported Relatively Poor Health Status and Quality of Life

About one-half of surveyed beneficiaries reported fair to poor overall health (56%), mental and emotional health (51%), and quality of life (46%) (**Exhibit 2-6**). This highlights the relatively poor health status reported by navigation-eligible surveyed beneficiaries relative the broader population, which ranges from 20% to 40% (August and Sorkin, 2010; Sommers et al., 2015).

Exhibit 2-6. Self-Reported Overall Health, Mental/Emotional Health, and Quality of Life

About one-half of beneficiaries reported fair or poor overall health, mental health, and quality of life.



Source: AHC beneficiary survey
Time Frame: January 2020–January 2022
Other Notes: Includes beneficiaries screened from April 2019–March 2021, surveyed roughly 6 months after their initial screening. Estimates were weighted for survey sampling and nonresponse and pooled across the Assistance Track intervention and control groups (that is, those who were provided with a community resource summary, but not offered navigation services) and the Alignment Track intervention group. Overall health was measured by the item "In general, how would you rate your overall health?" Mental/emotional health was measured by the item "In general, how would you rate your overall mental or emotional health?" Quality of life was measured by the item "In general, how would you rate your quality of life?"

HRSNs of Beneficiaries Reached by the AHC Model

The AHC eligibility criteria—having at least one HRSN and at least two ED visits in the past 12 months—were intended to ensure that beneficiaries with HRSNs that may be associated with increased health care utilization received model resources. Regardless of track, the most prevalent needs observed were food, housing, and transportation, and more than one-half of navigation-eligible beneficiaries had multiple HRSNs.

Food Insecurity, Housing, and Transportation Remained the Most Prevalent HRSNs

More than one-half (58%) of navigation-eligible beneficiaries had two or more of the five core HRSNs. Among those with at least one HRSN, 67% had a food need, 53% had a housing need, 44% had a transportation need, 36% had a utility need, and 5% had an interpersonal violence need. The prevalence of each need among navigation-eligible beneficiaries varied across

67% **Food Insecurity**: Sometimes or often worried that food would run out before money was available to buy more, or food bought did not last and money was unavailable to buy more

53% **Housing**: Worried about losing housing or having no steady place to live or problems with pests, mold, lead, heat, ovens, smoke detectors, or water

44% **Transportation**: Lack of reliable transportation for medical appointments, meetings, work, or getting things for daily living

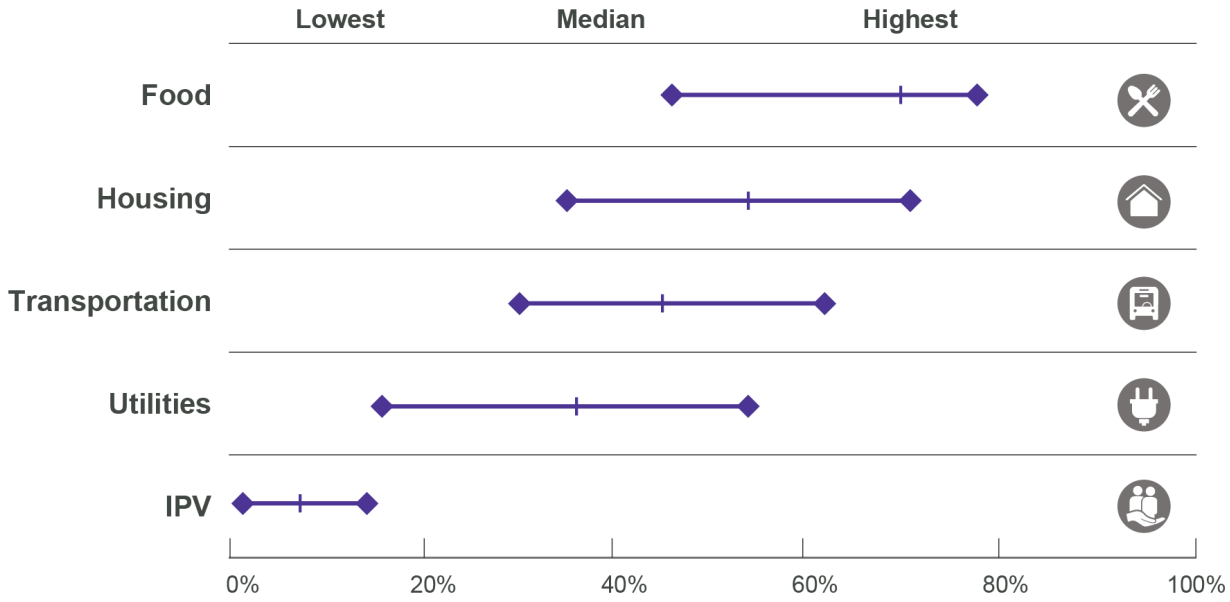
36% **Utilities**: Electric, gas, oil, or water company threatened to shut off services or already shut off services

5% **Interpersonal Violence**: Regular occurrence of being physically hurt, insulted, threatened with harm, or screamed or cursed at by another person, including a family member

bridge organizations, often considerably (**Exhibit 2-7**). These results are similar to the findings in the Second Evaluation Report.

Exhibit 2-7. HRSN Range Across Bridge Organizations of Core Needs Among Navigation-Eligible Beneficiaries

The prevalence of each need among navigation-eligible beneficiaries varied across bridge organizations, often considerably. Food insecurity was the most common HRSN reported, with a median prevalence of 69% among navigation-eligible beneficiaries.



Source: AHC screening, referral, and navigation data
Time Frame: May 2018–April 2023
Definitions: HRSN = health-related social need; IPV = interpersonal violence
Note: The lines for each HRSN represent the range for the percentage of beneficiaries with each HRSN. The vertical dash represents the median.

Overall, across the bridge organizations, food insecurity was the most common HRSN that navigation-eligible beneficiaries reported. However, prevalence varied among bridge organizations. The median prevalence of food insecurity was 69% across all AHC bridge organizations, indicating a widespread need for food among the population the model serves. The next most prevalent needs were housing, transportation, and utilities. Across bridge organizations, the median prevalence of each need for the navigation-eligible beneficiaries was 53% for housing, 44% for transportation, and 35% for utilities.

Interpersonal violence was the least common HRSN reported among navigation-eligible beneficiaries. The median prevalence of reported interpersonal violence across bridge organizations was only 6%. The low reported prevalence may be an underestimate, however. Beneficiaries may have been uncomfortable reporting such events, and screeners may have been hesitant to ask about them. The interpersonal violence items are the last core HRSN items in the AHC HRSN Screening Tool (most bridge organizations did not screen for supplemental needs) before the demographic items, which are also missing for many screened beneficiaries. Beneficiaries may have tired of answering the screening questions, or the screening may have been interrupted.

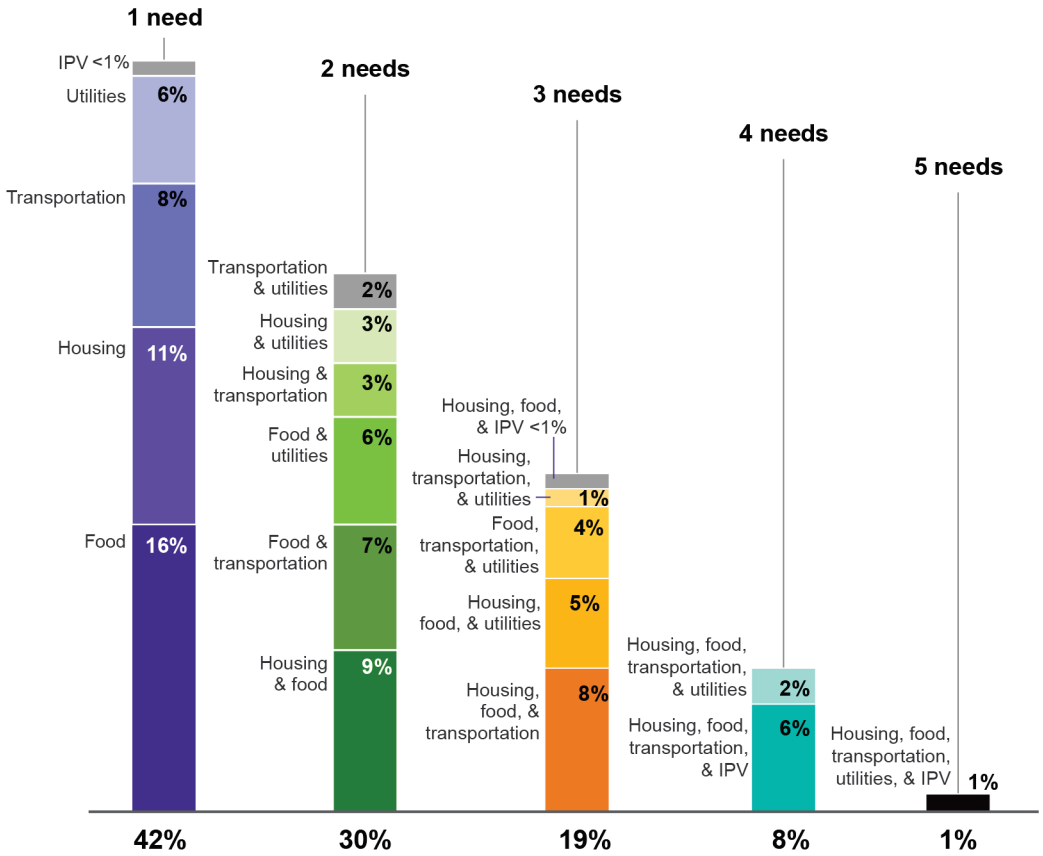
More Than Half of Navigation-Eligible Beneficiaries Had Multiple HRSNs

Other research has shown that having multiple social and behavioral risk factors is related to poorer health outcomes and greater health care utilization (Caleyachetty et al., 2015; Echouffo-Tcheugui et al., 2016; Stein et al., 2010). If health effects are compounded by having multiple risk factors, beneficiaries with multiple HRSNs have the greatest potential to benefit from effective navigation, and their participation in the AHC Model could lead to the greatest reduction in costs and utilization. The claims-based subpopulation analyses in **Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health show greater reductions in expenditures and service use (specifically ED visits and inpatient admissions) for Medicaid beneficiaries in the Assistance Track with multiple needs than for those with one need.

As noted, food, housing, transportation, and utilities were the most frequently reported core HRSNs among AHC-navigation-eligible beneficiaries. As **Exhibit 2-8** shows, 42% of navigation-eligible beneficiaries had only one HRSN, and 58% reported more than one HRSN: 30% reported two HRSNs, 19% reported three HRSNs, 8% reported four HRSNs, and 1% reported all five HRSNs. These results are consistent with the findings presented in the Second Evaluation Report.

Exhibit 2-8. Overlap Among Core Needs for Navigation-Eligible Beneficiaries

Nearly 60% of navigation-eligible beneficiaries reported having multiple needs.



Source: AHC screening, referral, and navigation data
Time Frame: May 2018–April 2023
Definitions: IPV = interpersonal violence

Conclusions

This chapter examined the characteristics and HRSNs among navigation-eligible beneficiaries, finding that the AHC Model successfully identified people who were underserved within the broader communities served by the bridge organizations. Low-income beneficiaries who were eligible for Medicaid only or were dually eligible for Medicare and Medicaid were more likely to meet eligibility criteria for navigation than Medicare beneficiaries. Beneficiaries in underserved racial and ethnic groups were also more likely to be navigation eligible than were White beneficiaries, especially for Medicare. Beneficiaries who had less than a high school education or equivalent were more likely to be eligible for navigation services.

Nearly 60% of navigation-eligible beneficiaries reported having multiple needs. Food and housing were the most prevalent needs among this population, both of which can significantly affect health and have been associated with higher rates of acute care. Providing navigation for beneficiaries with multiple needs was likely more challenging than providing navigation for any single need; however, effective navigation for these beneficiaries may yield the greatest benefits. Regression analyses in later chapters show that certain beneficiary characteristics (such as race, ethnicity, and payer type) were related to navigation acceptance (**Chapter 6:** Navigation) and to HRSN resolution (**Chapter 7:** Connections to CSPs and HRSN Resolution). **Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health delves into claims-based subpopulation analyses that find greater reductions in expenditures, ED visits, and inpatient admissions for Medicaid beneficiaries with multiple HRSNs as compared to those beneficiaries with a single need.



Chapter 3: Community Capacity to Address HRSNs

Community capacity to address health-related social needs (HRSNs) is critical to the success of Accountable Health Communities (AHC) Model. Navigators in communities without adequate capacity to address HRSNs will face challenges connecting beneficiaries to appropriate services, thereby limiting AHC Model effectiveness.

Key Takeaways

- The pandemic led to temporary increases in resource availability, especially food resources, and improved awareness of existing resources and collaboration between organizations, but these temporary increases did not fundamentally alter resource availability in communities.
- Alignment activities may have contributed to increasing coordination in Alignment Track communities.
- Over the course of the model, fewer CSPs reported improvements in community capacity and their ability to address HRSNs and sufficient funding and staffing. This trend likely reflects declines in resources to respond to the pandemic, which ebbed by 2022.

The Second Evaluation Report highlighted that community capacity to address HRSNs can be defined as the interplay between resource availability—the number, accessibility, appropriateness, and quality of available resources—and the community's ability to leverage those resources (**Exhibit 3-1**).

In that report, we also showed that resource availability at the start of the AHC Model differed among AHC Model communities (the communities where the model was being implemented). However, there were no discernible differences between tracks when resource availability was averaged across the track. The first round of evaluation interviews with bridge organizations, navigators, and screeners, conducted in 2020 and 2021, revealed gaps in housing and transportation resources. Moreover, transportation needs hampered efforts to address housing needs. Interview findings also suggested that resources may be scarcer and less accessible in rural communities. Although many interviewees mentioned these challenges,

data from the first round of the community service provider (CSP) survey (conducted in 2020) showed that CSPs felt they usually had enough staffing and funding to effectively deliver services to their clients. In addition, CSPs reported that their community's capacity to meet HRSNs had increased since the AHC Model began in 2017.

In this chapter, we examine the following research questions:

Key Research Questions

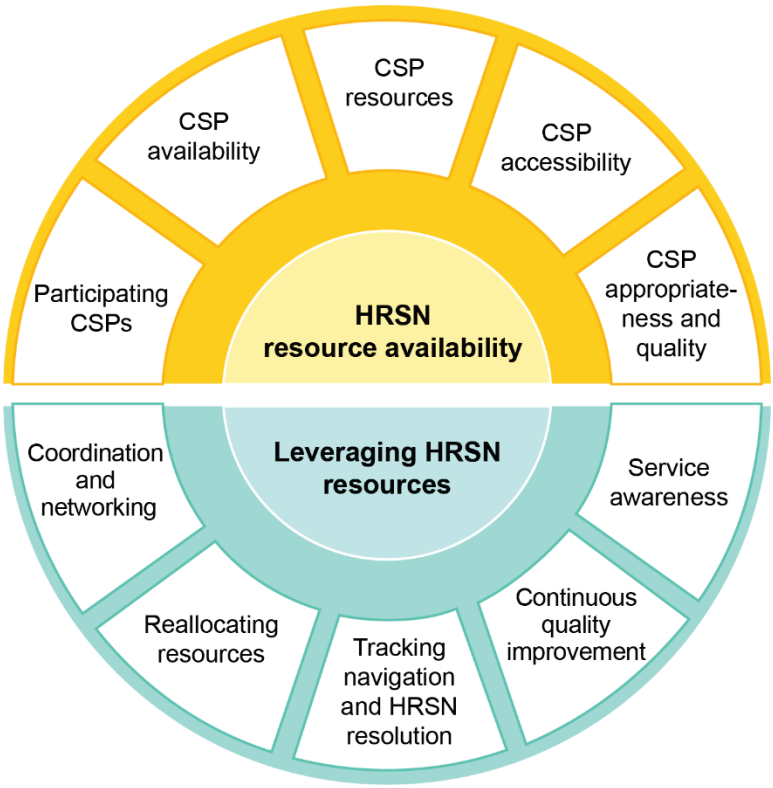
- How did the availability and quality of community resources vary across bridge organizations?
  - In particular, was resource availability lower in mostly rural AHC Model communities?
- How did the types and amount of community resource availability affect AHC intervention delivery and HRSN resolution?
- How did the availability of community resources evolve over the course of AHC Model implementation?

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

- Publicly available data on county-level measures of community services and resources from 2017 and 2018
- The second round of semi-structured interviews
  - AHC bridge organization leaders, clinical delivery site staff, navigators, and screeners interviewed in 2021
  - CSP staff interviewed in the winter of 2021
  - Beneficiaries interviewed in 2022
- Survey of CSPs conducted in 2020 (round 1) and again in 2022 (round 2)

Exhibit 3-1. AHC Community Capacity Framework

Community capacity comprises two parts: HRSN resource availability and the ability of a community to leverage available HRSN resources.



Definitions: CSP = community service provider; HRSN = health-related social need
Note: Definitions of the core components (inner circle) and key elements (outer circle) of community capacity are in Appendix E.

Resource and Social Service Availability in AHC Model Communities

Housing and Transportation Continued to be the Main Resource Gaps

In the second round of interviews with CSPs, bridge organization leaders, navigators, screeners, clinical delivery site (CDS) staff, and beneficiaries, interviewees largely reiterated findings reported in the Second Evaluation Report about gaps in affordable housing and transportation in AHC Model communities. Interviewees also mentioned gaps in utility assistance and emergency cash assistance.

Lack of affordable quality housing and rental assistance were the most common resource gaps mentioned. One CSP commented that scant housing funding was the main resource shortage in their community: "There's always gaps in housing dollars available for people. That would be the only one that I think is a significant gap of need versus available resources."

Interviewees also commonly mentioned lack of transportation, particularly in rural communities and for nonmedical needs: "There's many different transportation organizations for medical appointments, but not for going to the grocery store or church or whatever else." Lack of transportation options can affect access to other services: "A lot of the food pantries might be in your zip code, but you don't have transportation to get there."

Conversely, CSPs generally felt their communities had adequate resources to help mitigate food insecurity despite more community members experiencing food insecurity during the COVID-19 pandemic. Some beneficiaries agreed that their communities had enough resources to help people access food when needed. One beneficiary stated, "There's plenty of…food centers, like food banks…where you can actually get food if you need. There's plenty of opportunities." However, this beneficiary went on to talk about limited food bank accessibility caused by many community members seeking assistance. "It just seemed like everybody and their brother was trying to get through. And last time we went [to the food pantry], the line was like, over a mile long and we just drove back."

Rural Areas Had Lower Resource Availability

In both rounds of qualitative interviews, many interviewees involved in implementing the AHC Model (either as bridge organization staff, navigators, screeners, or CDS staff) in rural communities reported feeling that there were fewer resources in their communities than in urban communities. They also shared that transportation issues felt like a bigger challenge in their communities than in urban communities, where public transit options were more plentiful, and resources were less geographically dispersed. For example, a CSP in a rural area shared, "I think because we are in a rural area…we do have limited access…. As far as transit goes in populated areas, there are fixed routes and stuff like that where you can catch a bus or a train and go wherever you need to. Here…you have to call in and make an appointment to go somewhere or to book a trip."

We sought to validate these perceptions with an analysis of resource availability by geographic area type.[3] Findings from that analysis indicate that while descriptively the absolute difference is not small (60% of primarily rural AHC communities have low resource availability, while 48% of non-primarily rural model communities have low resource availability), the difference across this small sample of communities is not statistically significantly different ($p = 0.62$), suggesting that primarily rural AHC Model communities overall did not have fewer social service organizations per capita than other model communities. However, this could be due to lack of statistical power to detect a difference, and resource availability may still be lower in rural communities. For example, even if the number of organizations per capita does not differ substantially, the size and capacity of social service organizations in rural communities may be smaller. In addition, resources in rural areas are very likely to be less accessible because of greater distances between beneficiaries' residences and service delivery locations and lower availability of public transportation. Counterbalancing lower resource availability and accessibility in rural areas, a few CSP interviewees noted that rural areas have advantages when it comes to awareness of resources and experience coordinating across organizations. One interviewee said, "This is a rural community, and we all know each other and what each other does…. We can lean on each other for things, and I think we do that with [the bridge organization]."

Resource Availability and HRSN Resolution

The likelihood of HRSN resolution depends on the availability of services and resources in AHC Model communities. Absent available resources—such as housing or transportation—bridge organizations, navigators, and CSPs are limited in their ability to address beneficiaries' HRSNs. The CSP survey captured data about CSPs' perceived ability to resolve HRSNs, and beneficiary interviews provided insight on how resource availability and accessibility influenced successful connection to services to address HRSNs.

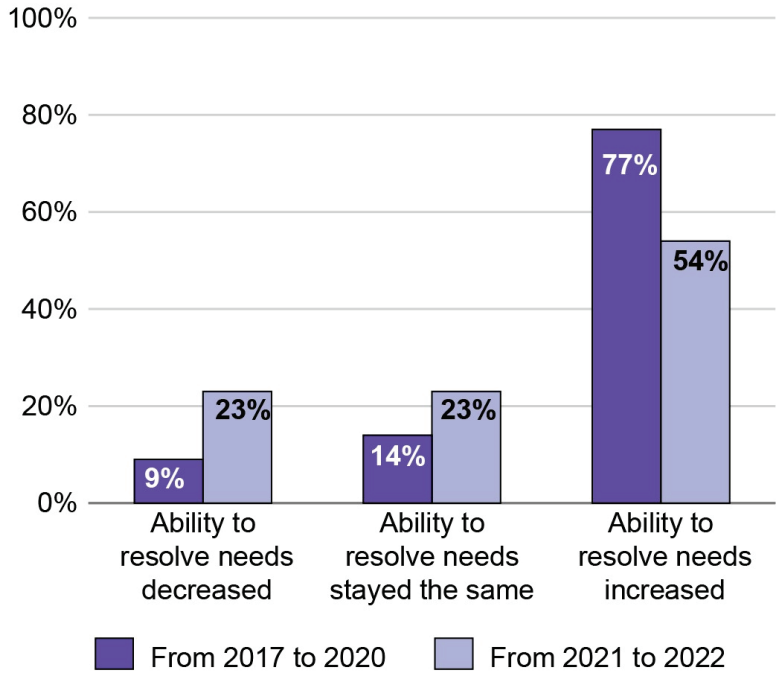
[3] We quantitatively examined this belief that AHC Model communities in rural areas have lower resource availability than those in urban areas. We defined Model communities as "primarily rural" if more than 50% of the counties in their Geographic Target Areas were rural and non-metropolitan. We measured resource availability as the number of social service organizations per 100,000 people. We used publicly available data about the number of social service organizations from the National Center for Charitable Statistics (which is based on federal tax return data) and Census population data. (See the Second Evaluation Report for further methodology details.) We defined "low resource availability" as being below the median resource availability among all Model communities.

CSPs' Perceived Ability to Resolve Clients' HRSNs Tapered in Later Model Years

Surveyed CSPs rated changes in their ability to resolve clients' needs. In 2020, they reported on changes since the inception of the model, and in 2022, they reported on changes over the past 12 months; 126 CSPs completed the survey in both 2020 and 2022. In 2020, 77% thought their ability to resolve clients' needs had increased since model inception. That proportion dropped to 54% in 2022 (**Exhibit 3-2**).[4] We found no differences across tracks in CSPs' perceived ability to resolve clients' needs.

Exhibit 3-2. Changes in CSPs' Perceived Ability to Resolve Clients' Needs at the Beginning and End of AHC Model Implementation

Fewer CSPs reported perceived increases in their ability to resolve clients' needs at the end of model implementation compared to at the beginning.



Sample Size: N = 115 CSPs in round 1 (11 missing); N = 114 CSPs in round 2 (12 missing).
Source: Survey of Community Service Providers
Methods: Frequencies weighted for survey nonresponse.
Time Frame: July–November 2020; January 2022–May 2022.
Definitions: CSP = community service provider
Other Notes: Results are from a subanalysis of 126 CSPs that responded in both rounds. This survey question asked, "Please choose the best option for each of the following questions. Would you say the following decreased, stayed the same, or increased: your organization's ability to resolve clients' needs." In the Round 1 survey, CSPs were asked to consider from when the AHC Model began in 2017 to when the survey was fielded in 2020. In the Round 2 survey, CSPs were asked to consider the 12 months before the survey was fielded in 2022.

This reported decline coincides with survey findings that, compared with 2020, fewer CSP respondents in 2022 perceived recent increases in community capacity, and fewer reported always or usually having sufficient staffing and funding. Data from interviews with bridge organization leaders, CDS staff, and navigators in 2021 indicated that lack of resource availability hindered bridge organizations' ability to connect beneficiaries to services to address HRSNs. One bridge organization leader questioned the value of screening beneficiaries for HRSNs if there

[4] We did not test for statistical significance because the sample of CSPs that completed both surveys (n = 126) was too small to test for significant differences. Results reported are descriptive.

are no available resources to connect them to, saying, “It’s great that we have programs where we can direct people to resources, but then if the resources don't exist, why do we ask these questions?” A screener at another site described feeling helpless when resources are not available: “There’s just not a lot of housing, and you feel helpless when you know someone’s out on the street and there’s really nothing you can do.”

We further assessed the influence of resource availability on HRSN resolution by exploring whether resource availability and potential need for social services in AHC Model communities (an analysis presented in the Second Evaluation Report) predicted high levels of connection to a CSP or HRSN resolution. We hypothesized that bridge organizations serving Geographic Target Areas with high resource availability and low potential need for social services[5] would be more likely to achieve high levels of connection to a CSP or needs resolution. Our analysis found that having high resource availability and low need in AHC Model communities did contribute to bridge organizations’ ability to achieve a high percentage of CSP connections or HRSN resolution. These findings (reported in **Chapter 7:** Connections to CSPs and HRSN Resolution) are consistent with findings from the CSP survey and interview data, and the CSP survey and interview data indicate that resource availability influences HRSN resolution.

Beneficiaries Reported Challenges Accessing Resources to Address HRSNs, but the Pandemic Improved Their Resource Awareness

Beneficiaries interviewed in 2021 largely reiterated challenges described in the Second Evaluation Report but offered additional insight about how resource availability affected HRSN resolution from their perspective. Most beneficiaries believed that there were not enough resources to effectively address HRSNs in their community. One beneficiary shared that they had contacted a CSP they were referred to, but the CSP was unable to help because of a general lack of resources: “They tried to help me as much as they could, but there’s not much available to help people. So, there you are.”

Misalignment between HRSNs identified through screening and the needs beneficiaries thought were important also surfaced as a challenge. One beneficiary said, "I understood the questions…I just didn't feel that I got the proper result to all of this." A few beneficiaries said that AHC navigators referred them to services they were already familiar with before the AHC Model, so the referrals were not new or helpful. This sentiment aligned with what a few surveyed CSPs expressed as a disadvantage or challenge of AHC Model participation, which was limited AHC Model staff knowledge about available services and eligibility criteria for services.

Some beneficiaries noted that the response to the COVID-19 pandemic increased their resource awareness and availability within their communities. The pandemic response helped make resources more visible, particularly through community information phone lines such as 2-1-1 or 3-1-1, and helped increase knowledge about available resources to address HRSNs. One beneficiary said, “There’s like a hundred times the amount of services than there used to be. And they’re so much more visible now. It’s so much easier to find the services, plus a lot of people didn’t know that you could just pick up the phone and call 2-1-1 or 3-1-1 or whatever and find out about your services in your area. More people know about that now because of COVID.”

Factors Affecting Changes in Resource Availability

As described previously in the Second Evaluation Report, resource availability may moderate AHC Model impact, as lower-resourced communities would have more difficulty resolving beneficiaries’ HRSNs than higher-resourced communities. In the Alignment Track, alignment activities may improve resource availability through improved coordination and collaboration among community partners or resource reallocation to fill identified gaps.

[5] See the Second Evaluation Report for additional details. Bridge organizations that served Geographic Target Areas with high resource availability and had low potential need for social services are depicted in the upper left-hand quadrant of Exhibit 4-5 in the Second Evaluation Report.

Improved resource availability could translate to greater potential to resolve beneficiaries' HRSNs. On the other hand, persistent gaps in resources hinder HRSN resolution. This section discusses factors affecting changes in resource availability, including strategies bridge organizations used to improve resource availability, the influence of COVID relief efforts on resource availability, and changes in CSP resources.

Some Bridge Organizations Used New Strategies to Improve Resource Availability

During interviews, bridge organizations noted the importance of resource availability in meeting beneficiaries' HRSNs. As reported in the Second Evaluation Report, lack of community resources prevented bridge organizations from successfully connecting beneficiaries to services to meet their HRSNs. Subsequent bridge organization interviews in 2021 revealed that some bridge organizations were implementing new strategies to improve resource availability or accessibility in their communities. Some advocated for policy changes, such as increasing availability of free meals for students, increasing affordable housing stock, preventing discrimination against those with Section 8 housing vouchers, and instituting a meals program for people under age 60. Some encouraged uptake of existing policies, such as allowing landlords to apply for rent relief on behalf of a large group of tenants to avoid tenants having to file on their own. Other strategies included leveraging funding to expand existing services to new target populations. For example, bridge organizations could establish a "flex fund" to provide services for patients who are ineligible for existing services or use community benefit dollars to expand services for groups uncovered by existing services. Bridge organizations also collaborated with local partners to improve access to services, such as by working with the utility company to remove sensitive questions from the utility assistance application form.

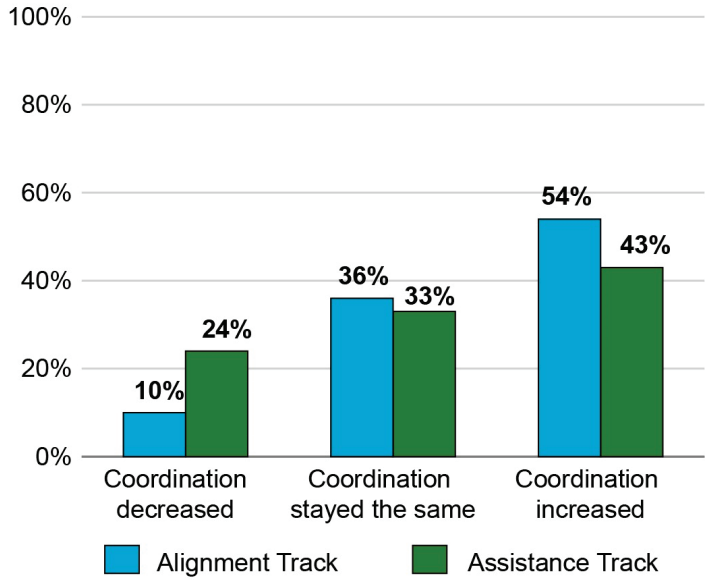
Half of Surveyed CSPs Reported That Coordination Among Community and Social Service Organizations Had Improved; Alignment Track CSPs Were More Likely to Report Improvement

In addition to increasing resource availability and accessibility, improved coordination and networking (under "Leveraging HRSN Resources" in **Exhibit 3-1**) could increase community capacity. Half (50%) of CSPs surveyed in 2022 saw improvements in coordination among community and social service organizations in the 12 months before survey administration. Of the other half, 35% thought coordination remained the same, and 15% thought it decreased. A few surveyed CSPs even cited increased opportunities to collaborate with other organizations as a benefit of AHC Model participation.

Notably, compared with Assistance Track CSPs, a higher proportion of Alignment Track CSPs thought coordination among community and social service organizations increased in the past 12 months (Alignment: 54% vs. Assistance: 43%, $p < 0.01$) (**Exhibit 3-3**). Alignment activities may have contributed to increasing coordination in Alignment Track communities.

Exhibit 3-3. Perceived Coordination Among Community Partners by Track

In 2022, more Alignment Track than Assistance Track CSPs reported increased coordination among community partners in the past 12 months.



Sample Size: N = 293 CSPs (41 missing).
Source: Survey of Community Service Providers
Methods: Frequencies weighted for survey nonresponse; chi-square test for significant differences across tracks.
Time Frame: January 2022–May 2022.
Definitions: CSP = community service provider
Other Notes: Results are from all 334 CSPs that responded in Round 2. This survey question asked, "Please choose the best option for each of the following questions. Would you say the following decreased, stayed the same, or increased in the past 12 months: Coordination among community and social service organizations in your area."

Federal and State Pandemic Relief Programs Temporarily Improved Food Assistance and Mitigated Housing Instability

The COVID-19 public health emergency activated substantial federal and state funding for programs to support economic recovery from the pandemic. The public health emergency also enabled the federal government to afford states more discretion to ease eligibility restrictions and expand benefits for many public programs, including subsidized childcare, school meals, the Supplemental Nutrition Assistance Program (SNAP), and the Low-Income Housing Home Energy Assistance Program (Thiess and Bryant, 2022). For example, the U.S. Department of Agriculture Food and Nutrition Service, which oversees SNAP, temporarily increased and extended SNAP benefits during the COVID-19 public health emergency (U.S. Department of Agriculture, Food and Nutrition Services, 2022). Both past and recent CSP interview and survey data showed that the COVID-19 pandemic had substantial (mostly positive) effects on community resource availability. As reported in the Second Evaluation Report, 92% of CSPs surveyed in July to November 2020 were at least moderately impacted[6] by the COVID-19 pandemic. Similar to

[6] The 2020 CSP survey asked CSPs, “How much has COVID-19 impacted your organization? Please consider both negative and positive impacts on client volume, staffing, funding, and services since the pandemic started in March.” Response options were “severely impacted,” “moderately impacted,” “slightly impacted,” “almost no impact,” and “don’t know.”

2020, nearly all (97%) of CSPs surveyed in 2022[7] adapted operations in response to the pandemic (**Exhibit 3-4**). Many described examples of improving resource availability, including:

- using Coronavirus Aid, Relief, and Economic Security Act (CARES Act) and other pandemic relief funding to enhance services and hire additional staff,
- easing eligibility restrictions for CSP-provided services so more clients could access services, and
- strengthening community engagement and inter-organization collaboration.

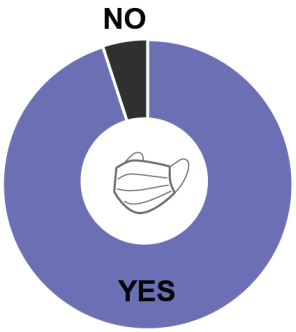
The examples CSPs gave around strengthening inter-organization collaboration in response to the pandemic parallel the findings presented in the previous section. In other words, CSPs saw improved coordination among community and social service organizations.

[7] The 2022 CSP survey asked whether CSPs made adaptations in response to the pandemic, such as changes in policies, protocols, mode of service delivery, type of services offered, and staffing, and if so, to describe what those adaptations entailed.

Exhibit 3-4. CSP Organizational Changes in Response to the Pandemic

Nearly all surveyed CSPs in 2022 made enduring organizational changes in response to the pandemic. Changes were mostly increasing services and modifying service delivery, but there were some reports of cutting or discontinuing services.

"Has your organization made any adjustments to the way it operates in response to the COVID-19 pandemic?"



> Did outdoors service for 14 months (back to indoors now). Increased need, reduced qualifications to receive service, launched home delivery program, increased hours, increased frequency clients can receive services.
> *(Alignment Track CSP)*

> Household food delivery, extended hours, mask requirement for in-person shopping and volunteers/staff, support for smaller organizations, community partnerships.
> *(Alignment Track CSP)*

> We have had to modify services based on significant decreases in staff, at one point, we had a 50% vacancy rate for our direct service positions due to impacts of covid and vaccine mandates. Therefore, we contracted our services to focus only on the health and safety of our residents instead of life enhancements. Many of our services had to be completed virtually, many employees had to work additional hours or take on additional tasks to accommodate for covid exposures, outbreaks, and lack of staff. Many services ended because they posed a risk to the health of participants.
> *(Alignment Track CSP)*

Sample Size: N = 296 CSPs (38 missing).
Source: Survey of Community Service Providers
Methods: Frequencies weighted for survey nonresponse.
Time Frame: January 2022–May 2022.
Definitions: CSP = community service provider

Bridge organization leaders interviewed in 2021 identified similar themes about improved resource availability. One bridge leader said, "The past 6, 8 months, there've been a lot of resources available, whether it be the additional SNAP boost … the child tax credit, P-EBT (Pandemic EBT), there've been a lot of resources. So I feel like people are not—it's not that they're not in need, but there's less of a need."

Although improvements in resource availability during the pandemic were broadly reported, there were differences depending on the types of resources. Resources to mitigate food insecurity were mobilized quickly and nimbly. Many surveyed CSPs reported expanding services, for example, by increasing food pantry hours and locations, implementing new free meals programs, and increasing outreach to enroll people in food assistance programs like SNAP.

Resource mobilization around housing stability, on the other hand, was more complex. Many people were at risk of losing housing because of the pandemic (Consumer Financial Protection Bureau, 2021; Chun et al., 2023). Demand for housing surged, and the need for support to keep people in their existing housing grew. CSPs reported challenges finding enough temporary housing to meet the increased need. Survey data contained examples from CSPs about how their organizations temporarily housed people in hotels when emergency shelters were at full capacity. Pandemic relief funds became available to help people pay their rent and utility bills, though, and many states instituted eviction and foreclosure moratoriums to retain people in housing (Consumer Financial Protection Bureau, 2021; Benfer et al., 2021). This influx of pandemic relief temporarily eased the strain on people at imminent risk of losing housing during the pandemic by reducing evictions and foreclosures (Consumer Financial Protection Bureau, 2021; Benfer et al., 2021). In the 2022 CSP survey data, one CSP that provided housing

assistance explained a swell of clients seeking rental assistance: “We went from 6–10 rental assistance cases per month to an average of 89 per month the first several months of COVID. We slowed down, but still have a greater number of rental assistance requests. We raised a lot of money for COVID relief and spent it directly assisting people impacted by COVID.” Pandemic relief funds improved housing resource availability through rental assistance and moratoriums on evictions and foreclosures, counteracting the steep rises in housing instability and demand for housing services caused by the pandemic. It did not, however, add new housing stock or improve inadequacies in affordable housing above what was available at baseline. The overall lack of affordable housing units remained a challenge.

Despite the pandemic relief, interviewees said that the housing landscape is even more precarious now than before the pandemic. Many people will need to pay rent and utility bills that accumulated during the pandemic when relief programs expire and eviction moratoriums end. One navigator said, “[When] shut-off or cutoff dates and things like that were extended, patients used that money for other things, whether it be food or paying car payments, things like that. So I have had patients with incredible utility bills, thousands, upwards of thousands of dollars that they owed.”

According to CSP interview and survey data, the COVID-19 pandemic was a major driver for community resource mobilization, creating an impetus for change. One CSP explained how their organization pivoted to address the emerging needs brought about by the pandemic:

> "Our organization has shifted and adapted in our daily operations, from providing support to partners and local nonprofits to supporting more clients one-on-one, increasing our services and hours. We responded to our community's needs by offering food boxes directly, providing COVID education, and partnering to organize and carry out vaccination and testing clinics. We began offering virtual and over-the-phone assistance for different services."

Survey and interview data from CSPs suggests that pandemic response was at the forefront of their work throughout most of model implementation.

CSP Organizational Capacity and Perceptions of Community Capacity

Interviews and the CSP survey captured data about several elements of community capacity, including CSP resources and services awareness (**Exhibit 3-1**). Many interviewees of all types—CSPs, bridge leads, navigators, screeners, and beneficiaries—reported that the pandemic led to an infusion of new resources and increased resource awareness. However, by the winter of 2022, some surveyed CSPs reported lower perceived organizational capacity with respect to staffing and funding—types of CSP resources—than in 2020. The CSP survey also asked CSPs about their assessment of changes in community capacity as a whole in early AHC Model implementation (2017–2020) and again in late model implementation (2021–2022).

Fewer CSPs Reported Adequate Staffing and Funding in 2022 Than in 2020

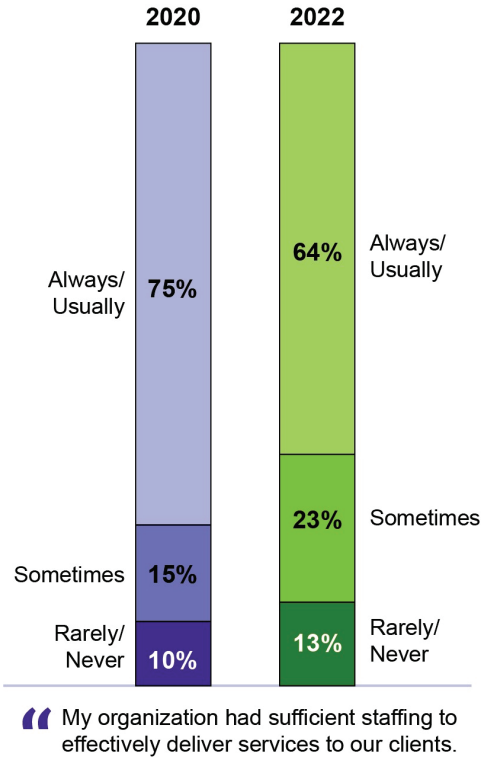
The Second Evaluation Report explained that some beneficiaries encountered challenges accessing services to resolve HRSNs because of CSPs’ limited hours or CSP staff not returning phone calls. Limited CSP staffing and funding may add to resource availability gaps through reduced organizational capacity to provide services. However, most CSPs surveyed in 2020 reported they had sufficient staffing (72% of CSPs surveyed in 2020) and funding (61% of CSPs surveyed in 2020) to serve eligible clients. The 2022 CSP survey also asked about perceived staffing and funding sufficiency.

Staffing

Among the 126 CSPs that responded to surveys conducted in 2020 and 2022, the percentage reporting "always" or "usually" having sufficient staffing dropped from 75% to 64%, while the percentage rarely or never having sufficient staffing increased from 10% to 13% (**Exhibit 3-5**).[8] Though the decrease in perceived staffing sufficiency is notable, several CSPs noted using pandemic relief funds to hire additional staff. It is promising that nearly two-thirds of surveyed CSPs still felt they had adequate staffing capacity in 2022. We expected that housing and transportation CSPs would be less likely to report having adequate staffing than other types of CSPs, but found no significant differences by the type of core service provided by the CSP.

Exhibit 3-5. Perceived CSP Staffing Sufficiency

Perceived CSP staffing sufficiency declined from 2020 to 2022 but remained high overall.



Sample Size: N = 116 CSPs in Round 1 (10 missing); N = 115 CSPs in Round 2 (11 missing).
Source: Survey of Community Service Providers
Methods: Frequencies weighted for survey nonresponse.
Time Frame: July–November 2020; January 2022–May 2022.
Definitions: CSP = community service provider
Other Notes: Results are from a subanalysis of 126 CSPs that responded in both rounds. This survey question asked, "Please indicate how often you felt your organization had the following resources in the past 12 months. My organization had sufficient staffing to effectively deliver services to our clients." Response options were always, usually, sometimes, rarely, and never. We collapsed "always" and "usually" responses and "rarely" and "never" responses.

[8] We did not test for statistical significance because the sample of CSPs that completed both surveys (n = 126) was too small to test for significant differences. Results reported are descriptive.

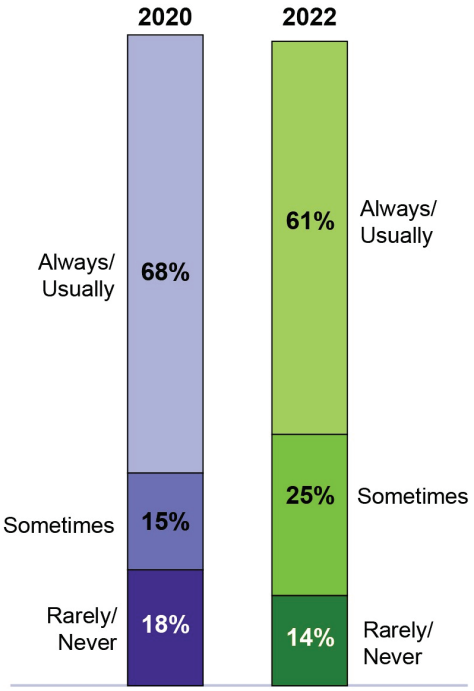
Still, some interviewed CSPs mentioned issues with staffing that limited their ability to serve clients. One CSP explained ongoing challenges with staff turnover as follows: "[There were] pre-COVID issues with staff turnarounds. So, staff turnaround becomes a barrier in ensuring that there's 100% efficiency."

Funding

Similarly, among the 126 CSPs that completed the survey in both 2020 and 2022, the percentage reporting always having sufficient funding decreased slightly from 2020 to 2022, from 68% to 61%.[9] However, the percentage reporting rarely or never having sufficient funding also decreased (from 18% to 14%), suggesting that although some CSPs perceived decreases in funding sufficiency, others perceived increases (**Exhibit 3-6**).

Exhibit 3-6. Perceived CSP Funding Sufficiency

Although the majority of CSPs reported that they always or usually had sufficient funding, the percentage was lower in 2022 than in 2020.



Sample Size: N = 116 CSPs in Round 1 (10 missing); N = 115 CSPs in Round 2 (11 missing).
Source: Survey of Community Service Providers
Methods: Frequencies weighted for survey nonresponse.
Time Frame: July–November 2020; January 2022–May 2022.
Definitions: CSP = community service provider
Other Notes: Results are from a subanalysis of 126 CSPs that responded in both rounds. This survey question asked, "Please indicate how often you felt your organization had the following resources in the past 12 months. My organization had sufficient funding to cover the cost of delivering services to our clients." Response options were always, usually, sometimes, rarely, and never. We collapsed "always" and "usually" responses and "rarely" and "never" responses.

[9] We did not test for statistical significance because the sample of CSPs that completed both surveys (n = 126) was too small to test for significant differences. Results reported are descriptive.

Although more than one-half of CSP survey respondents perceived their organization's funding was sufficient to deliver services in 2022, some interviewed CSPs expressed concerns about funding uncertainty. One CSP noted that grant funding was unpredictable: "Four out of our five outreach programs are funded by grants. So, there's always that worry that, will we get this grant?" Other CSPs said that the amount of services their organization delivers depends on their amount of funding; they could provide more services with increased funding. One CSP said, "It's not that we don't necessarily have a gap. Now, if there was funding available could we provide more direct services? Of course. I mean, absolutely." Funding uncertainty may have been exacerbated by the pandemic, particularly among CSPs that primarily received state and local funding. Findings reported in the Second Evaluation Report showed that most CSPs had diverse funding streams (federal, state, local, and private funding). Those with federal funding were less likely to report being severely impacted by the COVID-19 pandemic than CSPs without federal funding.

The AHC Model incentivized bridge organizations to engage CSPs in helping address beneficiaries' HRSNs but did not directly fund CSPs or social services. However, some bridge organizations and CSPs had funding relationships in place during the model. Survey data from 2022 showed that more than one-quarter (28%) of CSPs received funding from bridge organizations in the past 12 months—although the funding could have been unrelated to the AHC Model. Among the 126 CSPs that responded to both rounds of the CSP survey, the proportion receiving financial support from bridge organizations increased slightly over time, from 24% in 2020 to 31% in 2022.[10] There were no differences by track.

Fewer CSPs Reported Community Capacity Increases in 2022 Than in 2020

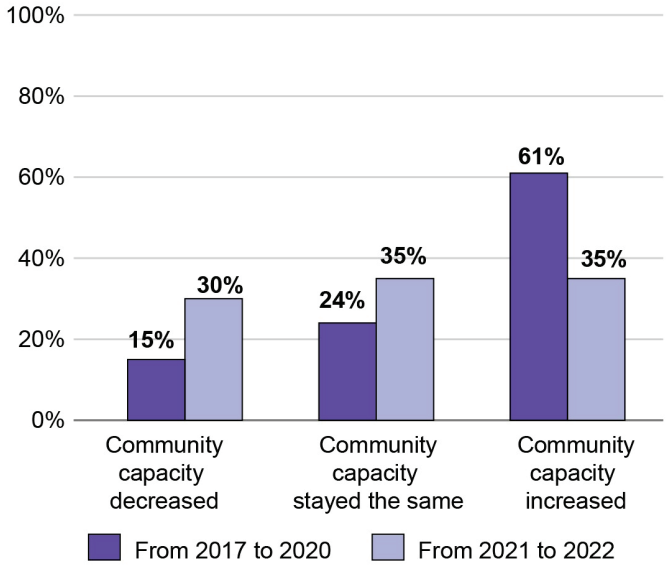
Surveyed CSPs were asked whether they thought their community's capacity to meet residents' HRSNs decreased, stayed the same, or increased during the preceding time frame. The findings suggest a slight decrease in community resource availability and CSP organizational capacity (staffing and funding) from the first survey (2017 to 2020), where there seemed to be an initial surge in capacity, to the second survey (2021 to 2022), where that initial surge tapered off. This likely reflects the fact that by 2022, the infusions of resources to respond to the pandemic had ebbed.

Specifically, in the Second Evaluation Report, we reported 2020 survey data on CSP perceptions around changes in community capacity, which captured the time from model inception in 2017 to the first survey in 2020. When we surveyed CSPs again in 2022, a substantially smaller proportion of CSPs thought community capacity increased in the prior 12 months. Sixty-one percent reported that community capacity increased in 2020, which dropped by 26 percentage points (to 35%) in 2022 (**Exhibit 3-7**).

[10] We did not test for statistical significance because the sample of CSPs that completed both surveys (n = 126) was too small to test for significant differences. Results reported are descriptive.

Exhibit 3-7. Changes in CSPs' Perceptions of Community Capacity at the Beginning and End of AHC Model Implementation

Fewer CSPs reported increased community capacity in 2022 than in 2020.



Sample Size: N = 115 CSPs in Round 1 (11 missing); N = 112 CSPs in Round 2 (14 missing).
Source: Survey of Community Service Providers
Methods: Frequencies weighted for survey nonresponse.
Time Frame: July–November 2020; January 2022–May 2022
Definitions: CSP = community service provider
Other Notes: Results are from a subanalysis of 126 CSPs that responded in both rounds. This survey question asked, "Please choose the best option for each of the following questions. Would you say the following decreased, stayed the same, or increased: Community capacity to meet residents' health-related social needs" In the Round 1 survey, CSPs were asked to consider from when the AHC Model began in 2017 to when the survey was fielded in 2020. In the Round 2 survey, CSPs were asked to consider the 12 months before the survey was fielded in 2022.

Data from the first round of the CSP survey, reported in the Second Evaluation Report, indicated a potential difference in increased community capacity between tracks. Compared with Assistance Track CSPs (53%, n=55), a larger proportion of Alignment Track CSPs (64%, n=87) reported increases. That difference across tracks was not evident in the 2022 round of survey data—the proportions of CSPs in each response category were almost identical across tracks (Assistance Track CSPs reporting increases: 32%, n=30; Alignment Track CSPs reporting increases: 33%, n=66).

We also assessed perceived changes in community capacity by the type of core service the CSP provides (food assistance, housing assistance, interpersonal violence support, transportation, and utility assistance) using the 2022 CSP survey data. We identified 172 CSPs with a main core service of either food assistance, housing assistance, interpersonal violence support, transportation, or utility assistance. Among those, a smaller proportion of interpersonal violence support and transportation CSPs (6% and 15%, respectively) reported perceived increases in community capacity than food assistance and utility assistance CSPs (36% and 45%, respectively). These findings suggest that shifts in perceived community capacity may have varied by CSP type.

Conclusions and Lessons Learned

Most AHC Model communities seemed to struggle with a lack of resources to address gaps in affordable housing and access to transportation. Bridge organization leaders, navigators, and screeners continued to have frustrations

that the model did not provide resources to increase resource availability (because model funds could not be used to pay for HRSN services). Not having access to resources to help beneficiaries weighed on navigators' minds and limited their ability to address beneficiaries' HRSNs, particularly for housing and transportation needs. To achieve the transformation goals of the AHC Model it is important to have both a wide variety of community partnerships and sufficient community resources.

The pandemic led to increases in resource availability, greater awareness of resources among beneficiaries, and more coordination between organizations to leverage existing resources. In particular, more resources became available to address food needs (such as new pantries and drive-through sites). At the same time, housing and utility needs decreased in many localities (in some cases, for example, due to eviction and utility shut-off moratoriums). Yet these infusions of resources were not sufficient to address persistent gaps in housing, utilities, and transportation resources during the model. Furthermore, the pandemic increases in resource availability waned by 2022 and did not alter the landscape of resource availability in AHC Model communities in a long-term way.

Consistent with this, although more than 60% of CSPs reported having adequate staffing and funding in 2022, this proportion was lower than it had been in 2020. Similarly, fewer CSPs in 2022 than 2020 felt that their ability to resolve clients' needs and their community's capacity to address HRSNs had increased in the recent past. Together these results suggest that community capacity decreased slightly from 2020, when the pandemic led to a surge in resource availability, to 2022, when most of the pandemic aid had ended.

Community capacity to address HRSNs is a multifaceted concept that is challenging to measure. The number of social service organizations in a community is an imperfect measure of resource availability because organizations can vary in size and capacity. The number of organizations also does not capture other aspects of community capacity such as accessibility, appropriateness, and the ability of the community to leverage those resources. A mixed methods approach combining quantitative measures of available social services with survey and qualitative data about perceptions of community capacity was critical to understanding both social service availability broadly across communities and the nuances of resource availability from community members' perspectives.

Exhibit 3-8 highlights key challenges with community capacity and promising strategies for addressing those challenges. The exhibit also includes lessons learned related to community resources needed to resolve beneficiaries' HRSNs.

Exhibit 3-8. Challenges and Lessons Learned

- Persistent gaps in affordable housing and transportation limited navigators' ability to address HRSNs.
- Temporary increases in resource availability from pandemic relief did not resolve underlying deficiencies.
- CSP survey data indicated diminishing levels of organizational and community capacity over the course of the model.
- Community capacity is multifaceted and difficult to measure.

- Changing policies, encouraging uptake of existing policies, and leveraging funding to expand services could be viable ways to improve resource availability.
- Using a combination of data sources facilitates understanding of different aspects of community capacity.

- Gaps in resource availability, particularly for housing and transportation, may limit the effectiveness of HRSN screening and navigation.
- Bolstering housing and transportation resource availability prior to launching navigation programs may help support the success of AHC-like initiatives.

Chapter 4: Implementation of Alignment

Alignment Track bridge organizations launched additional model requirements to encourage partner alignment. In this chapter, we build on findings related to alignment implementation by discussing bridge organizations' experiences with meeting model alignment requirements. We also explore how these required activities helped improve availability of community services that were responsive to beneficiaries' health-related social needs (HRSNs).

Key Takeaways

- Bridge organizations sought to align clinical and community services by developing shared goals, building relationships, and integrating and reducing duplication of key services and resources.
- Engaging diverse advisory board members improved capacity and was critical for successful alignment implementation.

(continued)

Alignment Track

Alignment Track bridge organizations were responsible for launching additional model requirements, convening an advisory board to review and prioritize beneficiary and community needs, conducting an annual assessment of community services to identify gaps, and creating a quality improvement (QI) plan to better align community services with beneficiary needs. Of the 18 Alignment Track bridge organizations, five were clinical organizations (such as hospitals, health systems, or integrated delivery systems that provide clinical services), and 13 were nonclinical bridge organizations (such as independent nonprofits, universities, health care payers, health information technology companies, public health departments, or consulting firms).

Research Questions

This chapter addresses Research Objectives 1 and 2, which seek to understand the context of the Accountable Health Communities (AHC) Model and the approaches to implementation, respectively. This chapter explores four research questions:

Key Research Questions

- How have bridge organizations and clinical delivery sites (CDSs) launched AHC alignment interventions?
- How have bridge organizations tried to align clinical and community services?
- What kinds of unanticipated challenges arose when the alignment model was launched?
- What types of supports must bridge organizations and CDSs receive to successfully align to the AHC Model?

Key Takeaways (continued)

- Beneficiaries and their caregivers continued to be the most challenging group to engage consistently. Additionally, most beneficiaries on advisory boards did not have lived experience with the core HRSNs. Thus, the input from individuals who have direct experience with these issues was limited.
- Gap analyses and QI plans had limited utility as tools to identify and prioritize an area's capacity to meet community needs and as tools to track progress.
- While a significant majority of advisory board members agreed that they successfully identified HRSN service gaps, fewer agreed that they were able to reduce those gaps.

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

- Qualitative findings are based on review and abstraction of the following data:
    - Alignment Track bridge organizations' program documents
    - Semi-structured interviews with AHC stakeholders from all 18 Alignment Track bridge organizations
        - Interviews were conducted with AHC leaders (principal investigators or project directors), CDS leadership, clinicians, screeners, and patient navigators.
        - Interviewees were selected to represent stakeholders most engaged with and knowledgeable about key topics; however, interviewees are not representative of all individuals or organizations engaged on these issues. Data were collected from January through March 2022.
        - See **Appendix O** for the interviews and thematic analysis.

- Quantitative findings are based on two surveys:
    - Advisory Board Survey of 235 advisory board members conducted from July through September 2020
    - Community Service Provider (CSP) survey of 334 CSPs that were part of bridge organizations' referral networks, conducted from January through May 2022
    - See **Appendix H** for the survey protocols and methods.

Fidelity to Required Alignment Activities

The AHC Model specifies that Alignment Track bridge organizations not only provide navigation services to connect high-risk beneficiaries to community services but also encourage collaboration across partners. This alignment is meant to ensure that community services are available and responsive to the needs of beneficiaries. Each Alignment Track bridge organization was required to convene an advisory board to assess and prioritize stakeholder and community needs, assist the bridge organization in preparing an annual gap analysis, and support the development of a QI plan. The board had to meet at least quarterly and include representatives from state Medicaid agencies, local government (for example. Department of Public Health or mayor's office), participating CDSs, participating CSPs (that is, CSPs for each HRSN identified by the AHC HRSN Screening Tool), clinical providers, and beneficiaries and their caregivers.

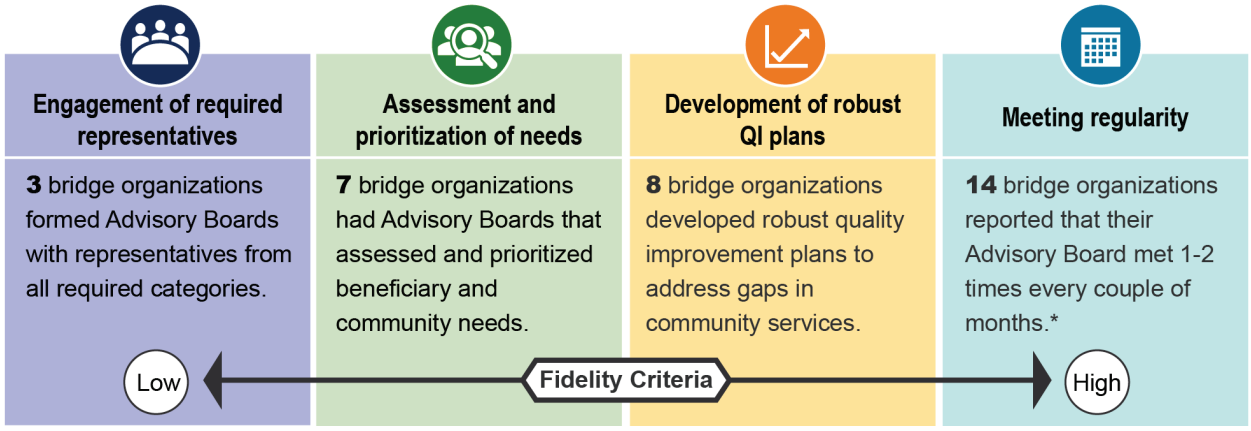
The AHC Model Alignment Track also required bridge organizations to analyze the extent to which available community services addressed the HRSNs of high-risk community-dwelling beneficiaries. To meet this requirement, bridge organizations were required to conduct an annual gap analysis to assess actual and desired performance. This gap analysis allowed them to better prioritize opportunities for improvement related to clinical and community alignment, increase availability of resources, and improve beneficiaries' access to them.

Finally, Alignment Track bridge organizations were required to collaborate with their advisory board to develop a QI plan and update the plan annually on the basis of the gap analysis. The QI plan had five required components: (1) goals over a defined time frame; (2) methods for managing and monitoring all plan activities; (3) standard quality tools and techniques in use; (4) a method for communicating QI progress to advisory boards; and (5) evaluation processes, measures, and outcomes to ensure the quality and effectiveness of the QI plan implementation.

As part of RTI's analysis of the AHC Model, we used qualitative and survey data to assess the extent to which each Alignment Track bridge organization met these model requirements (see **Appendix D** for detailed information on our methods and data sources). Overall, bridge organizations implemented Alignment Track activities with mixed fidelity (**Exhibit 4-1**).

Exhibit 4-1. Alignment Track Fidelity Assessment Findings (N=18)

Bridge organizations implemented Alignment Track activities with mixed fidelity.



Source: AHC Model Fidelity Assessment; see **Appendix I** for details.
Definitions: QI = quality improvement

	Three of the 18 Alignment Track bridge organizations successfully engaged representatives from all six required stakeholders (listed above). An additional six bridge organizations were able to engage five of the six required stakeholders. For these bridge organizations, beneficiaries and their caregivers were the group most frequently missing from their advisory board. Additional discussion about advisory board composition is included below.
	Bridge organization leaders and advisory board members provided feedback on beneficiary membership and leadership within their advisory boards. We found consistent evidence in both the qualitative and survey data that seven bridge organizations had advisory boards that assessed and prioritized beneficiary and community needs.
	All bridge organizations developed QI plans to address gaps in community services. Overall, eight bridge organizations developed robust QI plans with strong evidence of meeting the AHC Model QI plan requirements.
	Fourteen bridge organizations—all of those with survey data—reported that their board met one or two times every couple of months.

Key Features of Alignment Track Advisory Boards

Representatives from Alignment Track advisory boards were asked about key features of their advisory board; their responses are in **Exhibit 4-2**. Board members showed high rates of agreement when asked about issues related to goals.

Nearly 80% of advisory board members agreed on a number of key features: a written description of shared goals, diverse perspectives in shared goals; clear leadership that fosters accomplishment; and involvement in continuous learning, including a regular review of progress, open discussion of mistakes, and adjustment of goals and activities in response to feedback and data. A similar percentage of board members also generally agreed on the importance of member attendance, active participation in board meetings, and efforts to achieve compromise and agreement. And approximately two-thirds of board members agreed that their board is involved in mutually reinforcing

activities, that board members understand working groups' roles and how roles support share goals, and that their organizations' activities change as needed. The greatest misalignment was between identifying and addressing gaps. Although 87% agreed that their advisory board has identified HRSN service gaps, only 60% agreed that they have been able to reduce those gaps.

Exhibit 4-2. Key Features of Alignment Track Advisory Boards

Advisory board members showed highest rates of agreement when asked about issues related to goals, leadership, continuous learning, and identification of HRSN service gaps.

	Domain	Advisory Board Features	Percentage of Advisory Boards That Completely Agreed or Mostly Agreed
	**Goals**	Has a written description of our shared goals	79%
		Shared goals included diverse perspectives	81%
	**Leadership**	Board leadership fosters accomplishment	78%
		Our board has a clear leader	77%
	**Mutually Reinforcing Activities**	Action Plan states board members' organizations' activities	64%
		Board members understand working groups roles and how roles support shared goals	71%
		Board members' organization's activities change as needed	65%
	**Continuous Communication**	Board members attend all or most board meetings	68%
		Board members actively participate in board meetings	72%
		Board members work to achieve compromise and agreement	77%
	**Continuous Learning**	Board regularly reviews progress	79%
		Board adjusts goals and activities in response to feedback and data	76%
		We openly discuss mistakes to learn from them	75%
	**Identifying and Addressing Gaps**	We have identified HRSN service gaps	87%
		We have reduced HRSN service gaps	60%

Sample Size: n = 235 Alignment Track advisory board members
Source: Advisory Board Survey
Time Frame: July–September 2020
Definitions: HRSN = health-related social need
Other notes: Responses from 214 Alignment Track advisory board members were weighted to represent advisory board responses at the bridge organization level. In other words, each responding advisory board member had their weight deflated such that the sum of the advisory board members weights within each bridge organization equaled 1.

Alignment Operationalized as Shared Goals, Relationship Development, Integration, and Reduced Duplication

The AHC Model encouraged alignment between clinical and community services to ensure that community services would be available and responsive to community-dwelling beneficiaries' needs. We examined advisory board survey and qualitative data to understand how bridge organizations defined and operationalized "alignment." AHC leaders from Alignment Track bridge organizations shared their perceptions of what successful alignment meant, or how they know that alignment has been achieved. Their feedback highlighted four aspects of alignment: goal sharing, building relationships among multiple sectors, integrating efforts across organizations, and reducing duplication.

Organizational alignment, including a clear articulation of shared goals. AHC leaders from a few bridge organizations reported on the importance of organizational alignment at multiple levels. This begins with ensuring that there are clearly articulated and shared goals for the group. As shown in **Exhibit 4-2**, approximately 80% of surveyed advisory boards reported that they have a written description of shared goals that includes diverse perspectives. When characterizing successful relationships, leaders describe the importance of working to "decide together what success looks like." Seventy-seven percent of surveyed advisory boards said that they work together to achieve compromise and agreement, key factors in the development and maintenance of effective relationships.

Organizational alignment also includes ensuring that partners are aligned in the language and tools (including referral systems) they use to address social determinants of health (SDOH). Finally, it includes seeking alignment from the U.S. Department of Health and Human Services, Medicaid offices, and insurers to ensure they have shared visions, goals, and definitions related to addressing SDOH.

Relationship development. AHC leaders from many bridge organizations focused developing strong relationships or partnerships across sectors. When characterizing successful relationships, leaders described opportunities for communication and collaboration across different stakeholders, joining voices, coordinating resources, and seeing all groups as equally important partners. Leaders also describe establishing strong partnerships between sectors in order to establish trust, co-manage work, and share data.

> "When we first started working with them and we were all excited about screening, we had five screens, they had 10 screens. So the individual patient was being asked 15 different screens to ask the same questions to get at the same issues. But now that we're aligned, we've been working together and have started to speak the same language and use the same tools. I think we've gotten a lot better about that."
>
> — AHC Leader

Alignment, integration, and reduced duplication. When bringing together diverse community stakeholders, everyone should clearly understand how each partner contributes to the overall goals and objectives of the board. In the Advisory Board Survey, approximately two-thirds of boards said that their organizational activities are outlined in their action plan, and that they understand working groups' roles and how those roles support the board's shared goals. A similar proportion noted that their organizations' activities change as needed, indicating that there is often willingness to adapt partner organizations' activities to support mutually reinforcing goals that align with the advisory board.

AHC leaders from a few bridge organizations explained that one of the greatest successes from the advisory board work was greater alignment, both across health systems (AHC partners/CDSs) and in the systems used to collect referral data. They also shared that the advisory board discussions had influenced the selection of referral platforms. For more information on this topic, please see **Chapter 5:** Screening and Referrals.

AHC leaders from many bridge organizations added that successful alignment, including better integration and less duplication of services, results in more timely connection to services. Leaders added that communication goes

"both ways," and that it is mutually beneficial when clinical staff know where to get support for their patients and when community partner staff have opportunities to be involved in decision making. AHC leaders further explained that two-way communication can be supported by "having the right feedback systems in place." These systems include agreeing on or using the same closed-loop referral platform to support patient navigation and inform/achieve HRSN resolution.

This focus on integration may also contribute to expansion of SDOH efforts within these communities. AHC leaders from a few bridge organizations added that AHC alignment activities may also help sustain SDOH work by launching other SDOH efforts. For example, AHC alignment activities helped create spinoff alignment efforts: AHC advisory board members are now sitting on other similar boards and continuing efforts to integrate and partner across CDS and CSP stakeholders. In addition, more health systems implemented SDOH screening.

Mainstreaming considerations of SDOH/HRSNs. A few AHC leaders added that an important indicator of successful alignment is when SDOH/HRSNs become a normal part of the health care conversation. When this happens, the patient navigator's job becomes easier.

Engagement and Participation of the Advisory Board Was Central to Alignment

As mentioned above, the AHC Model required that each Alignment Track bridge organization convene an advisory board to assess and prioritize stakeholder and community needs, assist the bridge organization in preparing an annual gap analysis, and support development of a QI plan. The section builds on previous findings with additional themes that emerged from key informant interviews. The findings presented are related to advisory board representation and engagement, considerations of health equity, and key data from the Advisory Board Survey (**Exhibit 4-2**). This includes additional insight into the engagement of beneficiaries on the advisory board.

Engagement of Diverse Advisory Board Members Improved Capacity and Was Critical for Successful Alignment Implementation

As specified by the Funding Opportunity Announcement (FOA), Alignment Track bridge organizations were required to include six types of stakeholders in their advisory board (described above), and most reported that they were successful in engaging them. Some also had additional representatives on their boards that were not explicitly required by the model, including individuals from academic institutions, foundations, private charities (for example, United Way), senior services, policy advocacy groups, health information exchange organizations, and behavioral health providers. However, only three bridge organizations had representatives from all required categories.

Engaging diverse organizations. AHC leaders from many bridge organizations said that the greatest success and value of their advisory board work was bringing together a range of SDOH-relevant decision makers (who may not have convened otherwise) and consistently and intentionally engaging them in tough conversations. These conversations focused on community-level goals and root causes of HRSNs (that is, exploring and attempting to tackle the who/what/how of addressing HRSNs, rather than simply addressing specific community services). AHC leaders from a few bridge organizations attributed the advisory board success to allowing diverse stakeholders to learn how to speak each other's language and understand each other's interests. Bridge organizations also saw the advisory board activity as an important tool for giving stakeholders ownership over the AHC project, which motivated the group to engage with the model and want it to succeed.

> "We all work together so that we all have more resources to be able to provide help to more and more people... I think that's really our biggest successes… building capacity and collaboration and teamwork and helping the community partners to see the health system as a partner and a collaborator in this work."
>
> — AHC Leader

Patient navigators from several bridge organizations explained that engagement in the advisory board gave them connection to, insights about, and familiarity with various CSPs. This, in turn, made them more comfortable referring patients to resources, which improved their navigation. For example, one patient navigator said that by engaging with advisory board members who were knowledgeable about CSPs' context, including resource limitations and other challenges, the patient navigators could better prepare their patients for what to expect during referrals.

Finding consensus and agreement is inherently challenging when bringing together many diverse stakeholders. Seventy-seven percent of advisory boards surveyed indicated that their members work together to achieve compromise and agreement (see **Exhibit 4-2**). AHC leaders from several bridge organizations said it was sometimes difficult for such a diverse board to find and agree on direction and focus across the breadth of topics the model addresses (for instance, five core HRSNs) and the range of groups involved with implementation. However, AHC leaders said that engaging diverse stakeholders improved the board's capacity to address SDOH. With diverse stakeholders involved, AHCs could identify and leverage how the many different stakeholders and work streams fit together (for instance, complete a collective and more-inclusive community needs assessment) and learn how others may be tackling similar problems.

Elevating the voice of CSPs. AHC leaders from many bridge organizations said that alignment activities were valuable because they elevated the voice and importance of the CSP community in HRSN/SDOH work. These AHC leaders explained that CSPs are important leaders that provide a community-informed and community-driven lens to their work that contributes to successful implementation of interventions that seek to achieve community and clinical alignment. By making CSPs equal partners at the table under AHC, one stakeholder explained, "health systems have been able to hear community partners in a way they had not prior to this project." However, many AHC leaders also noted that hearing from CSPs, while important, was not sufficient, and that many CSPs are already struggling with limited resources to provide services to individuals in need.

CSP engagement in multisector partnerships could be strengthened with additional supports.

The AHC Model was financially structured to place limits on the kinds of supports and remuneration CSPs could receive. However, AHC leaders from several bridge organizations reported a need for greater investment in CSPs, including funding for their participation. Although funding went toward making referrals, CSPs did not receive model funding to provide services to those referred, and leaders felt that "the money should be representative of the contribution." Because many CSPs already struggle with limited funds, resources, and capacity to provide services, strain will only grow as demand increases through the additional referrals and screening from the model. One bridge organization shared that they provided stipends to CSPs to participate in the advisory board, but that was not enough for the CSPs to serve those being referred.

"We need funding for the social service sector. It's been very, very hard to do a model like this, where you only fund one part of the pie, half of the team basically." (AHC Leader)

Maintaining Advisory Board Member Engagement and Participation Over Time Was Challenging as the Model Neared Its End

Maintaining enthusiasm and engagement over time for any effort can be challenging. After 4 years of implementation, AHC Model stakeholders from several bridge organizations identified high turnover as one of the key challenges of the advisory board. Previous findings shared the challenges of engaging advisory board members and activities during the COVID-19 pandemic, but this challenge appears to have extended beyond pandemic interruptions. According to Advisory Board Survey Data from 2020, 68% of respondents said that board members attend all or most board meetings, and 72% reported that board members actively participate in board meetings. Sixteen percent of Alignment Track CSPs surveyed (n=17) reported that their participation in AHC Model activities, including advisory board participation, was less in 2022 than when the AHC Model began in 2017. Because of turnover within the advisory board, some stakeholder groups had inconsistent representation. For example, some CDS and health department leadership or legislators were not reelected or took on more senior positions and no longer had bandwidth to participate. AHC leaders from several bridge organizations also reported a decline in meeting participation and engagement over time, citing meeting/Zoom fatigue and withdrawal as the model began to wind down. The fidelity assessment revealed that bridge organizations did meet the model requirement to convene boards at least quarterly. However, some bridge organizations exceeded this requirement early in the model, but reduced the frequency of meetings to maintain engagement (for example, from monthly in years 1 and 2 to quarterly meetings with more-frequent updates). Other changes included conducting more small-group work and encouraging more interpersonal sharing through icebreaker activities.

> "As the model is winding down, we're seeing less and less of attendance at the advisory board."
>
> — AHC Leader

Various Barriers Limited Beneficiary Participation on Advisory Boards

Interviews with AHC leaders and findings from the fidelity assessment (**Exhibit 4-1**) show that beneficiaries and their caregivers continued to be the most challenging group to engage on the advisory board. As discussed in ER2, beneficiary participation in advisory boards was limited, and the fidelity assessment suggests mixed evidence that

the boards formally assessed and prioritized beneficiary needs. We define "beneficiaries and their caregivers" as community members who represent and speak to the HRSN-related services and needs of the community or people who may have received screening, referral, or navigation services at a CDS (related and unrelated to the AHC Model). In line with findings reported in the Second Evaluation Report, AHC leaders explained that the inclusion of beneficiaries with lived experience of challenges with HRSNs was complicated by a number of factors. In addition to navigating a history of mistrust and cultural differences, AHC leaders had difficulties identifying and engaging beneficiaries that represent the community, felt comfortable representing the community, and were available to meet and participate in regular advisory board activities.

Beneficiaries who served on advisory boards often held dual roles and did not necessarily provide input from the perspective of someone with lived experience with HRSNs—for example, frontline clinicians (CDS representatives) who were also Medicare beneficiaries. This dual role may have led to some advisory boards being overrepresented by older or retired professionals (such as professors or chief medical officers) who had no personal experience with HRSNs. Addressing this challenge could involve specifying the perspectives needed on the advisory board and offering greater flexibility on who could provide that input. For example, the perspective of those with lived HRSN experience may be most valuable to have on an advisory board, but the perspectives of groups that work closely with this population could serve as a potential proxy. The Second Evaluation Report included several strategies for engaging and retaining beneficiary members from underserved communities, such as a formal onboarding process and paid transportation to meetings. Other strategies identified for this report included ad hoc consultation with beneficiaries and involving them on some of the advisory board's sub-committees or groups. Both strategies were intended to encourage engagement while reducing the burden of time, expense, and effort.

> "It was hard to find a community member… that really felt comfortable being engaged and participating and wanted to continue to do it on a consistent basis."
>
> — AHC Leader

Discussions with AHC leaders indicated that the investments sometimes required to engage beneficiaries were worthwhile. When beneficiary members were engaged in the advisory board, they reminded the board about key issues facing this group and connected clinical and community resources by, for example, serving as a champion of community resource inventories.

Beyond beneficiary engagement, a smaller number of AHC leaders explained that their advisory boards lacked representatives from other important sectors, such as health care leadership, large community businesses who could fund and support AHC work, and certain required sectors, such as their state Medicaid agencies.

Advisory Boards Had Various Levels of Engagement with Health Equity

The AHC Model required bridge organizations to consider health equity as part of model implementation. In the Second Evaluation Report, we explored how AHC Model stakeholders and CDS leaders implemented the model requirement to complete a health resource equity statement (HRES). In this section, we complement those findings by reporting key themes that emerged about how AHC advisory boards considered and engaged with the topic of health equity in their alignment work.

> "Health equity and inclusion is a theme that permeates the work of all of these people that are on our advisory board as well as ourselves. So we don't sit and intentionally talk about definitions, but we are always thinking about what populations are we missing? What do we need to do to make the work increase health equity?"
>
> — AHC Leader

AHC leaders described various levels of engagement with health equity in their advisory board work. Leaders from several bridge organizations reported that health equity was not an explicit focus of advisory board meetings. However, AHC leaders from several other bridge organizations explained that although health equity wasn't a structured or standing topic of their advisory boards, health equity was a priority of their organization in general.

Leaders noted that "it's a theme throughout everything [the bridge organization] does organizationally," that the bridge organization has defined the term and applies it to all new projects, and that the bridge organization has a health equity committee separate from AHC.

In contrast, AHC leaders from several bridge organizations reported that because of AHC, health equity was (or became) a priority of their advisory board activities. According to these leaders, health equity activities included examining data (such as screening, client outcomes, or navigation targets) by different subgroups (for example, age or race/ethnicity), discussing the completed HRES with advisory board members, working with the health department to develop the HRES, and reviewing changes in outcomes and by subgroups over time. One AHC leader added that their advisory board was also using their focus on and insights about health equity to try and get better representation from communities on their board.

Implementation of Gap Analysis and QI Plan Activities

Required QI Plan Components

1. Goals over a defined time frame
2. Methods for managing and monitoring all plan activities
3. Standard quality tools and techniques in use
4. A method for communicating QI progress to advisory boards
5. Evaluation processes, measures, and outcomes to ensure quality and effectiveness of plan implementation

As described above (**Exhibit 4-1**), 8 of the 18 Alignment Track bridge organizations developed a robust QI plan, demonstrated strong evidence of meeting the AHC Model QI plan requirements, and met the five required QI plan components.

Here, we discuss some of the challenges experienced during implementation of the gap analysis and QI plans.

The survey of advisory board members showed that 87% of members completely or mostly agreed that the advisory board has identified HRSN service gaps. When asked whether the board has reduced HRSN service gaps, however, only 60% completely or mostly agreed (**Exhibit 4-2**).

The Utility of Gap Analyses and QI Plans Was Limited

The annual gap analysis was intended to examine gaps in community service capacity to measure the difference between actual and desired model performance. The QI plan was then intended to plan and monitor progress. However, analysis of these documents showed that most bridge organizations did not include information that could be used for that purpose. We outline some of the challenges with those data below.

Many bridge organizations used their gap analysis and QI plans to restate overarching areas of concern (for example, obesity, poverty, food access, or housing) using publicly available county- or state-level data (such as community health needs assessments). These data were often not specific to the eligible patient population the model sought to serve. Thus, it was challenging to use these analyses and plans to assess actual versus desired model performance. When bridge organizations were able to incorporate model-specific data, such as screening and navigation data, these tools became more tailored and useful to assessing performance. **Exhibit 4-3** presents examples of the key data sources used in gap analyses and QI planning. A listing of additional data sources is in **Appendix D**.

Additionally bridge organizations who could identify needs and resource gaps for their beneficiary population (that is, not overarching areas of concern) were often able to develop and implement specific strategies to address those gaps. Gap analyses sometimes were helpful in identifying other challenges and barriers, like the lack of awareness about particular resources, that could also be addressed programmatically. Most strategies described did align with an HRSN broadly, but they did not necessarily align with the gap specified. For example, one bridge

organization identified limited affordable housing as their primary gap but implemented a strategy to make medical respite beds available for COVID-19 patients.

As reported in ER2, gap analyses were useful for planning purposes; however, they were challenging for most Alignment bridge organizations to utilize and maintain. Our review of these gap analyses revealed that they were highly variable in scope and detail were updated infrequently over the course of the model lifespan. It was also difficult to ascertain whether a strategy was proposed or actually implemented. Additional guidance for structuring these analyses (for example, datasets and measurements) may facilitate greater utility of this tool. The QI plans were intended to build from the gap analyses, and similar challenges were identified with the QI plans.

Exhibit 4-3. Data Used by Bridge Organizations in Gap Analyses and QI Plans

Bridge organizations utilized a wide variety of data sources to inform their gap analyses and QI plans.

Type of Data	Examples
Federal	U.S. Census Bureau U.S. Bureau of Labor Statistics U.S. Department of Housing and Urban Development
State and Local	Community Health Needs Assessments Local health disparities reports Local surveillance reports
Non-federal	Robert Wood Johnson Foundation National Network to End Domestic Violence The National Low Income Housing Coalition
Model-specific	Screening data Navigation data Qualitative data collected from clinical delivery partners, advisory boards, collaborating CBOs Patient self-reporting data Focus groups

Source: Bridge organization quality improvement plans; bridge organization gap analyses; QI plans
Time Frame: Year 5
Definitions: CBO = community-based organization
Alignment Track

Additional guidance and technical assistance on how to structure QI plans may be helpful, especially on how to report on interim activities that touch on a larger gap or community-level issue or need. Even when resources existed to address a gap or interim need, obtaining data to measure utilization and resolution remained challenging, especially within a short timeframe and specific to the beneficiaries that were prioritized for the AHC Model. Similar to the gap analysis, a process for structuring the QI plans may increase this tool's utility for program monitoring and evaluation.

Strategies to Address Accessibility Gaps Were Easier to Resolve Than Those Addressing Availability

Strategies that address gaps related to accessibility (that is, the support beneficiaries need to connect with existing resources) were easier to fill than gaps where resources did not exist. Gaps in food resources were the most commonly reported, and strategies aligned with these gaps were marginally the most likely to succeed. Many bridge organizations reported the lack of affordable, quality housing. Compared with food resources, however, addressing availability of housing resources requires more complex strategies, including multi-sectoral coordination, improved infrastructure, and policy change. **Exhibit 4-4** gives examples of gaps and their associated strategies.

Addressing Community Gaps in HRSNs

One bridge organization sought to identify gaps and barriers to accessing utility services. The bridge organization surveyed AHC staff to identify opportunities to improve utilities-related needs. The survey revealed gaps related to knowledge of available utility resources among beneficiaries and AHC staff, limited or no resources for water bills, and misunderstandings around two different application processes.

In response, AHC staff identified several strategies for improvement, including streamlining the payment assistance programs and applications into one service, embedding the application for utility assistance into services available for Medicaid assistance, and securing funding and resources for water bill assistance. AHC staff also received additional training on utility assistance programs and applications including how to identify common mistakes so that they could provide beneficiaries with support during the application process.

Another bridge organization identified transportation as a barrier to food resources. Using the findings from the food needs assessment conducted with local partners, the bridge organization established food distribution points at clinical screening sites. The bridge organization also modified an existing contract with a medical transportation company to deliver food packages to the doorsteps of beneficiaries. In addition to improving access to food resources, the bridge organization hired additional staff to establish a Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) referral process. This new process created a closed-loop referral system into the WIC program for eligible women.

Exhibit 4-4. Example Gaps and Strategies Implemented to Address Gaps

Bridge organizations implemented a wide variety of strategies to address HRSN-related gaps.

HRSN	Strategies for Addressing Gaps
Food	Gaps related to food insecurity could often be addressed using strategies to improve access to existing resources. • Co-located food distribution within clinical sites • Built a "food insecurity" order into the Epic electronic medical records system • Worked with the Department of Planning to increase the number of food resources
Housing	Gaps related to housing were often the most challenging to address because resources were often not available in a community. • Created a "quick guide" for housing laws • Developed a "pay-to-stay" policy where the tenant cannot be evicted if they have paid something toward rent • Implemented a flex fund for beneficiaries seeking affordable housing to be used for any resource
Transportation	Addressing gaps related to limited free public transportation or stringent eligibility requirements require state-level policy changes. • Advocated to state Department of Transportation for funding for free transportation passes • Co-located resources (such as food) at CDSs to reduce need for additional transportation
Utilities	Gaps related to utility needs often focused on limited utility resources and funding and complicated application processes. • Streamlined application for utility assistance • Partnered with 211 to improve coordination of utility shut-off prevention

Source: Bridge organization gap analyses
Time Frame: Year 5
Definitions: CDS = clinical delivery site; HRSN = health-related social need.

Barriers to some HRSNs (such as food and utilities) could be mitigated with shorter-term strategies (for example, Uber for food delivery) that were neither far-reaching nor systemic. For other HRSNs, though, addressing gaps required more complex strategies involving multi-sectoral coordination, improved infrastructure, and policy change (such as for transportation and housing). For example, food access was the most readily addressed gap, but although gaps in affordable, quality housing were consistently reported, the housing HRSN had the fewest successful strategies to address the need. As written in both the QI plans and gap analyses, many gaps/issues require long-term, community-level (not programmatic) solutions.

Key Data Perceived to Support Alignment Implementation and Success

Most advisory boards reported that they were involved in a process of continuous learning to improve the quality of their model activities and efforts. Seventy-nine percent of advisory boards reported that they regularly review their progress toward their goals. Seventy-six percent reported that they adjust their goals and activities in response to feedback and data, and 75% reported that they openly

> "...it was really the referral outcome level that enabled the advisory board to say, okay, half of referrals to the emergency shelter were refused. Why? And what does that mean for how we deliver emergency housing services?"
>
> — AHC Leader

discuss mistakes to learn from them. The work of the advisory boards to plan, conduct gap analysis, and implement a QI plan relies on using a variety of data.

AHC stakeholders were asked to identify which data were most helpful to advisory boards for aligning community resources and beneficiary needs. Both screening data and referral outcome data were seen as critical. AHC leaders from several bridge organizations explained that these data identified beneficiary needs and were critical to effectively resolving gaps in connections to services and services themselves. One AHC leader explained that there are many points at which a beneficiary might "drop off" between screening and having a HRSN met, resulting in not receiving services. Data on *why* beneficiaries had unmet needs (for example, eligibility requirements, lack of transportation) after referrals could have informed advisory board decision making and improved need resolution for more beneficiaries.

AHC leaders from a few bridge organizations added more transparency is needed for referral outcome data and integration between the bridge organization and CSPs and across health systems. This data transparency is especially necessary for high-risk patients who frequent a variety of services, as a full picture of their care and what is and it not working to address HRSNs can only be seen by accessing multiple records and systems, such as electronic hospital records.

Compared to broader public use data, these beneficiary-specific screening and navigation data may better allow us to understand the needs and challenges of the AHC Model's groups of interest at the local level, compared to the use of broader public use data.

Conclusions and Lessons Learned

Alignment took place along multiple dimensions, including organizational alignment with shared goals, relationship development across sectors, and integration and reduced duplication of key services and resources. Advisory boards with diverse membership were at the core of the Alignment Track; they met and engaged regularly to examine and document community needs and developed plans for addressing those needs. Although member organizations were all operating in the same community, the advisory boards provided a mechanism for purposeful and strategic engagement that may not have occurred otherwise. Mobilizing and maintaining engagement of busy and diverse organizations and individuals was challenging, and over time, advisory boards needed to be creative to maintain momentum and engagement. Model participants shared that while engagement of beneficiaries and their caregivers was challenging, they provided valuable input on key issues facing this group. Additional guidance on the purpose of beneficiary and caregiver engagement in the future may help ensure that these representatives have direct experience with the SDOHs and HRSNs at the core of the AHC Model.

The gap analysis and subsequent QI plan was a requirement of the AHC Alignment Track and not the Assistance Track. Although key components of these activities and tools were defined in the FOA, additional technical assistance and guidance about data (for example, model screening data vs. publicly available community data) may help to increase bridge organizations' ability to use these tools for monitoring and evaluation purposes and inform program improvement efforts. Bridge organizations often defined their gaps as large, overarching community-level HRSNs, challenges, or needs (such as insufficient affordable housing) that were difficult to address because of the need for longer-term policy and infrastructure changes, rather than programmatic efforts. Although these significant community challenges were indeed gaps, as written, it was realistic or helpful to use these gaps for measuring the difference between actual and desired model performance. Model participants would benefit from technical assistance about how to identify gaps within larger HRSNs that can be measured and tracked through a QI plan. This may require participants to articulate interim goals and objectives that can be measured against model activities.

Exhibit 4-5 highlights key challenges for implementation of alignment and promising strategies for addressing those challenges. The exhibit also includes lessons learned related to community resources needed to resolve beneficiaries' HRSNs.

Exhibit 4-5. Challenges and Lessons Learned

Challenges

- Engaging beneficiaries and caregivers with direct experience with HRSNs was challenging.
- Engaging advisory board members toward the end of the funding period was difficult.
- Defaulting to high-level HRSN needs or issues as their "gap" in their gap analyses, limited their QI plans' ability to measure progress.
- Screening and referral outcome data were not always readily available to inform program improvements.

Promising Strategies

- Formal onboarding processes, paid transportation to meetings, and prioritizing when beneficiary input was helpful.
- Advisory boards reduced the frequency of meetings and conducted more small-group work to keep members engaged.
- Greater specificity about resource gaps within broader HRSNs improved utility of QI plans for planning and evaluation.
- Data sharing agreements with partners facilitated consistent and ongoing exchange of screening and navigation data.

Lessons Learned

- Clarifying why engagement of individuals with lived experience of HRSNs is important and what flexibilities exist to obtain this input may facilitate engagement of these stakeholders.
- Additional flexibilities may help maintain advisory board engagement throughout its lifespan.
- Technical assistance on how to define a gap and incorporate screening and navigation data into the gap analysis and QI plans may improve the utility of these tools for monitoring performance and evaluation.
- Advisory boards need access to screening and referral data to make midcourse program adjustments.

Chapter 5: Screening and Referrals

Screening and referring beneficiaries to CSPs is the first step in addressing health-related social needs (HRSNs). Overall, screening was successful. More than 1 million beneficiaries were screened for HRSNs, and 18% were deemed navigation eligible. This rate of navigation eligibility was above the Innovation Center's target eligibility rate of 13%.

Key Takeaways

- More than 1 million beneficiaries were screened for HRSNs, and 18% were eligible for navigation.
- The factors associated with higher screening rates varied between clinical and nonclinical bridge organizations:
  - Among clinical bridge organizations, the availability of more screening staff was associated with a high rate of screening.

(continued)

Despite these positive findings, the screening process faced significant challenges, including workflow interruptions due to COVID-19, staffing issues, and beneficiary mistrust. Virtual screening helped alleviate some of these challenges during the pandemic and provided a flexible screening approach. Last, most community service providers (CSPs) did not perceive an undue burden from the increased volume of referrals generated by the

Accountable Health Communities (AHC) Model. However, the lack of consistent electronic referral data systems may be hindering CSP awareness of which referrals are generated by AHC activities versus other referral sources.

In this chapter, first we describe current screening rates and present new results on the factors associated with higher screening rates. Second, we present new data on the continued impact of COVID-19 on screening, focusing on lessons learned after the initial shock of rapidly transitioning to an all-virtual screening approach. Third, we share screening staff members' and beneficiaries' perspectives on the successes and challenges with screening. Fourth, we describe the referral process, the effect of AHC-generated referrals on CSPs' workflow, the use of electronic referral platforms, and the effects of screening and referral workflows on usual care.

Key Research Questions

- How did bridge organizations and clinical delivery sites (CDSs) launch the AHC screening interventions?
  - How did the planned approach and fidelity to the planned approach vary across bridge organizations and over time?
  - How did contextual characteristics affect launch of the AHC Model?
  - How did structural, operational, and other key factors evolve over the course of model launch?
- What kinds of unanticipated challenges arose during model implementation of screening?
  - How did bridge organizations respond to these challenges?
  - What were the similarities and differences in response between bridge organizations that effectively launched the model and those that struggled?
- What was usual care for addressing the core HRSNs that the AHC Model targets?
  - Did approaches to usual care vary across CDSs and bridge organizations?
  - How did usual care evolve over the course of the AHC Model?

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

- AHC screening and navigation data, May 2018 through April 2023
- Publicly available social deprivation index and urbanicity data
- The second round of semi-structured interviews
  - AHC bridge organization leaders, clinical delivery site staff, navigators, and screeners interviewed in 2021
  - CSP staff interviewed in the winter of 2021

Key Takeaways (continued)

  - Among nonclinical bridge organizations, having fewer clinical delivery sites (CDSs) that were emergency departments (EDs) along with a larger number of physical locations was associated with a high rate of screening.
- Because of COVID-19, bridge organizations were able to explore the pros and cons of virtual versus in-person screening and found that having the flexibility to do both was optimal.
- Overall, beneficiaries responded well to screening, though difficulties in screening remained—including mistrust around the purpose and use of screening results.
- The increased number of navigation referrals resulting from AHC screening did not have a negative impact on most CSP's burden.

- Beneficiaries interviewed in 2022

- Survey of CSPs conducted in 2020 (round 1) and again in 2022 (round 2)

Screening Implementation

Final Screening Numbers

More Than 1 Million Beneficiaries Were Screened, with 18% Eligible for Navigation

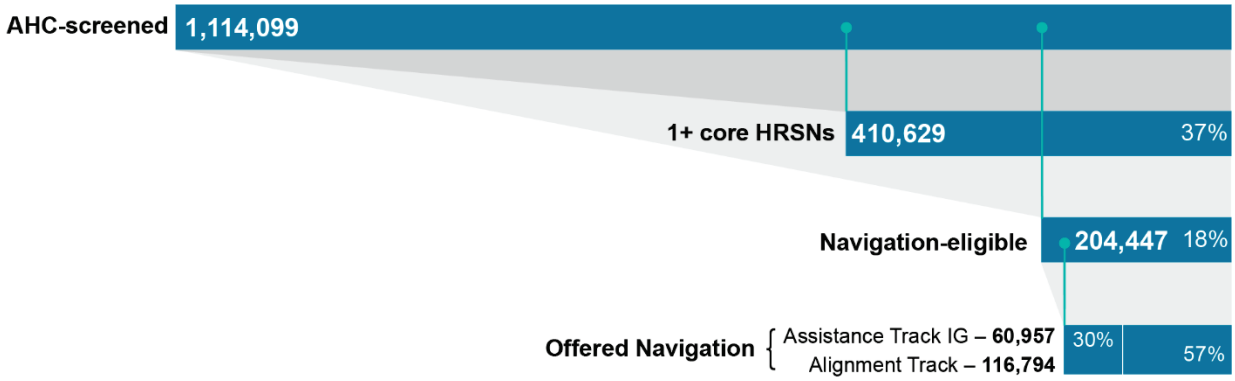
To assess the extent to which bridge organizations' screening activities reached the navigation-eligible population, we calculated the number of community-dwelling beneficiaries with a completed screening and the number and percentage of beneficiaries screened who were eligible for navigation (**Exhibit 5-1**). More than 1 million (1,114,099) unique beneficiaries completed a screening between May 2018 and January 2023. There have been more than 93,000 additional screenings since the Second Evaluation Report (1,020,864). Although there were more bridge organizations in the Alignment Track (n = 20) than the Assistance Track (n = 11), only a slightly higher percentage of beneficiaries were screened in the Alignment Track (53%) than in the Assistance Track (47%). Alignment Track ridge organizations screened an average of approximately 29,000 beneficiaries, and the Assistance Track bridge organizations screened an average of approximately 48,000 beneficiaries.

Overall, 18% of screened beneficiaries had one or more core HRSNs and had two or more ED visits in the past year, making them eligible for navigation. This is the same navigation eligibility rate as reported in the Second Evaluation Report. There were slightly more navigation-eligible beneficiaries in the Alignment Track (20%) than in the Assistance Track (17%). However, both percentages are well above the Innovation Center's expectation that at least 13% of screened beneficiaries would be navigation eligible. A larger percentage of Alignment Track beneficiaries (42%) had one or more core HRSNs than Assistance Track beneficiaries (31%).

Of those eligible for navigation, 30% were in the Assistance Track intervention group and 57% were in the Alignment Track. This is similar to the distribution of navigation-eligible beneficiaries by track reported in the Second Evaluation Report.

Exhibit 5-1. Navigation Eligibility of Screened Beneficiaries

More than 1 million Medicare and Medicaid beneficiaries were screened, with 18% eligible for navigation.



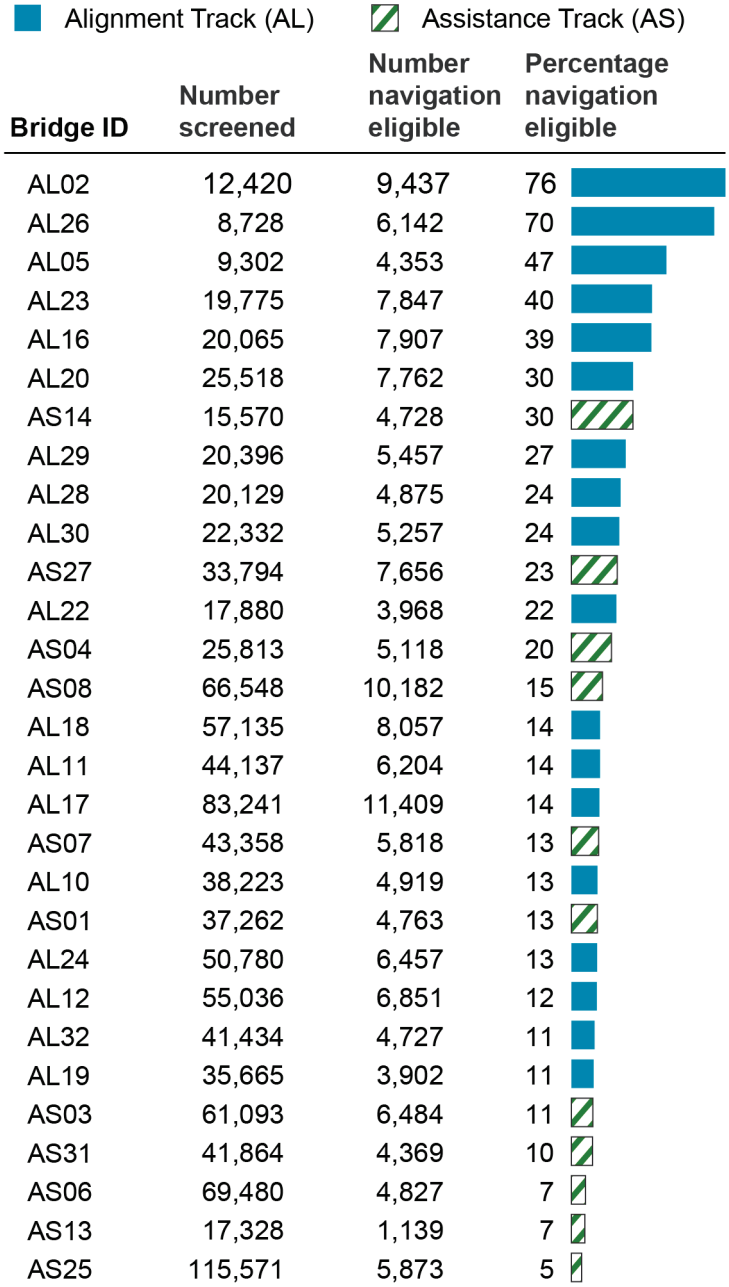
Source: AHC screening, referral, and navigation data
Time Frame: May 2018–April 2023
Note: The percentages represent the share of navigation-eligible beneficiaries in each track. Excludes 26,696 Assistance Track beneficiaries with one or more core HRSNs and two or more ED visits who were assigned to the control group (n = 25,550) or had no group assignment (n = 1,146).
Definitions: ED = emergency department; HRSN = health-related social need; IG = intervention group

Data Continue to Show Wide Bridge-to-Bridge Differences in the Number Screened and Percentage Eligible for Navigation

The number of unique AHC-screened beneficiaries varied substantially across bridge organizations, ranging from 8,728 to 115,571 (**Exhibit 5-2**, second column). The number of navigation-eligible beneficiaries varied across bridge organizations as well, ranging from 1,139 to 11,409 (third column). The percentages of each bridge organization's screened beneficiaries who were eligible for navigation ranged from 76% to 5% (fourth column). These data tell a similar story to the Second Evaluation Report. Specifically, some bridge organizations with lower numbers of screenings and higher percentages of navigation-eligible beneficiaries may be targeting their screening efforts toward a beneficiary population that they expect will be more likely to be eligible for navigation. In fact, data from key informant interviews suggest that some of these bridge organizations are targeting CDSs that serve large volumes of navigation-eligible beneficiaries. The targeted CDSs might be EDs or federally qualified health centers (where higher-risk beneficiaries tend to seek care), or clinical providers that operate in communities with higher rates of HRSNs.

Exhibit 5-2. Number Screened and Number and Percentage Navigation-Eligible

The number screened and the percentage of navigation-eligible beneficiaries varied substantially across bridge organizations.



Bridge ID	Number screened	Number navigation eligible	Percentage navigation eligible
AL02	12,420	9,437	76
AL26	8,728	6,142	70
AL05	9,302	4,353	47
AL23	19,775	7,847	40
AL16	20,065	7,907	39
AL20	25,518	7,762	30
AS14	15,570	4,728	30
AL29	20,396	5,457	27
AL28	20,129	4,875	24
AL30	22,332	5,257	24
AS27	33,794	7,656	23
AL22	17,880	3,968	22
AS04	25,813	5,118	20
AS08	66,548	10,182	15
AL18	57,135	8,057	14
AL11	44,137	6,204	14
AL17	83,241	11,409	14
AS07	43,358	5,818	13
AL10	38,223	4,919	13
AS01	37,262	4,763	13
AL24	50,780	6,457	13
AL12	55,036	6,851	12
AL32	41,434	4,727	11
AL19	35,665	3,902	11
AS03	61,093	6,484	11
AS31	41,864	4,369	10
AS06	69,480	4,827	7
AS13	17,328	1,139	7
AS25	115,571	5,873	5

Source: AHC screening, referral, and navigation data
Time Frame: May 2018–April 2023
Note: The percentage navigation-eligible is the percentage of beneficiaries screened by each bridge organization who are eligible for the AHC Model.

Factors Associated with Higher Screening Rates Differed Between Clinical and Nonclinical Bridge Organizations

We used qualitative comparative analysis (QCA) to examine how combinations of bridge organization, CDS, and community characteristics contributed to higher levels of population reach. We measured population reach using program data on the number of beneficiaries (accounting for the total beneficiaries in the geographic target area) who were screened for HRSNs among the 28 participating bridge organizations. We developed separate QCA models for clinical (n = 13) and nonclinical bridge organizations (n = 15) because of their differing characteristics. These analyses result in combinations of bridge organization and community characteristics associated with higher levels of population reach. We refer to these combinations as "pathways," because there are multiple ways in which bridge organizations can achieve higher levels of population reach, and these findings may serve as roadmaps for other organizations seeking to launch similar interventions. Although we have identified these pathways based on associations within the AHC evaluation data, we cannot assert that these pathways are causal. A detailed description of QCA, the methods used to develop the population reach QCA models, and the analysis appears in **Appendix J**.

Overview of Screening Analysis

The evaluation team reviewed previous evaluation findings and the AHC Model theory of change to identify bridge organization and community characteristics that were hypothesized to affect model reach. We then used QCA to identify how these conditions, in isolation or combination, related to having higher population reach. **Exhibit 5-3** lists the measures that were included in the population reach QCA models.

Exhibit 5-3. Five Conditions Examined, Including Definitions, Data Sources, and Calibration Values for the QCA Models

QCA models used varied condition including bridge organization and community characteristics.

Condition	Definition
Outcome: High Number of Beneficiaries Screened for HRSNs	Number of unique beneficiaries screened for HRSNs
High Proportion of Metro Counties	The proportion of counties defined as metropolitan in the bridge organization's service area
High Proportion of EDs	The proportion of EDs relative to other CDS types
Large Number of Screening Staff	The number of individuals conducting screenings within each bridge organization
Large Number of Physical Locations	The number of physical locations per CDS
Large Number of Beneficiaries	The total number of Medicare and Medicaid beneficiaries served by bridge organizations

Note: Calibration consists of converting case data into numeric set membership values, ranging from 0 to 1, that represent the degree to which a case belongs to a set. The conditions and outcome were calibrated using the direct method of calibration, which involves setting three qualitative anchors for each measure: the threshold for full membership, the threshold for full non-membership, and the crossover point (Ragin, 2000). After determining the set membership values of these three anchors, a logistic regression function is used to fit the data among these three calibration points and to transform the data into values between 1 and 0.
Definitions: CDS = clinical delivery site; ED = emergency department; HRSN = health-related social need

Pathways for High Levels of Population Reach Among Clinical Bridge Organizations

Among the 13 clinical bridge organizations, five had high levels of population reach, and the remaining eight had low to moderate levels of reach. We did not find a unique, single set of factors present among all five clinical bridge organizations with higher levels of population reach (see **Exhibit 5-4**). However, we did find that all five clinical bridge organizations that achieved high population reach also employed a large number of screening staff. In addition, four out of the five were operating in more metropolitan areas and had either a large number of beneficiaries in the geographic target area (pathway 1) or several high-volume screening sites (pathway 2). The remaining clinical bridge organization operated in fewer metropolitan areas but had a large number of physical screening sites (pathway 3). We found in the Second Evaluation Report, and will discuss later in this report, that staffing issues at some bridge organizations affected their ability to screen.

Exhibit 5-4. Three Pathways for High Levels of Population Reach Among Clinical Bridge Organizations

Organizations in each of the three descriptive pathways we identified benefitted from a large number of screening staff, but no single set of factors was present among five clinical bridge organizations with higher levels of population reach.

Pathways for High Levels of Population Reach Among Clinical Bridge Organizations					
		Conditions			
Pathways	Large Number of Screening Staff	High Proportion of Metro Counties	High Proportion of EDs	Large Number of Beneficiaries	Large Number of Physical Locations
1	✓	✓	✗	✓	N/A
2	✓	✓	✓	✗	✗
3	✓	✗	✗	✗	✓

Green check marks [✓] indicate the presence of a condition, and red *x* marks [✗] indicate its absence. N/A indicates that the condition was not associated with a given pathway..
Definitions: ED = emergency department
Please refer to *Appendix J: Qualitative Comparative Analysis (QCA) Methods* for additional detail on the development and validation of the QCA models, including methods for assessing the strength of the pathway relationships with the outcome (that is, consistency) and the relevance of the pathway relationships and the outcome (coverage).

Pathways for High Levels of Population Reach Among Nonclinical Bridge Organizations

Among the 15 nonclinical bridge organizations, five had high levels of population reach, and the remaining 10 had low to moderate levels of reach. In contrast to the clinical bridge organization QCA, we found that all five bridge organizations with high levels of population reach had a high proportion of non-EDs relative to other CDS types, suggesting that having a large number of non-ED CDSs was critical to having higher levels of population reach among nonclinical bridge organizations.

In addition, there were three pathways identified (see **Exhibit 5-5**). These pathways show that a high proportion of non-ED CDSs and having a large number of physical locations were consistent parts of the three pathways identified for achieving high levels of population reach. The QCA pathways also show that metropolitan status was not critical to nonclinical bridge organizations having high population reach. In other words, it was more important to have many places where screening can happen than to be in a population-dense area.

Exhibit 5-5. Three Pathways for High Levels of Population Reach Among Nonclinical Bridge Organizations

A large number of physical locations plus a high proportion of non-ED CDSs present in nonclinical bridge organizations with high levels of population reach.

Combinations for High Levels of Population Reach Among Nonclinical Bridge Organizations					
		Conditions			
Combinations	Large Number of Physical Locations	Large Number of Beneficiaries	Large Number of Screening Staff	High Proportion of Metro Counties	High Proportion of EDs
1	✓	N/A	✓	✗	✗
2	✓	✓	N/A	✗	✗
3	✓	✓	✓	N/A	✗

Green checkmarks [✓] indicate the presence of a condition, and red *x* marks [✗] indicate its absence. N/A indicates that the condition was not associated with a given pathway.
Definitions: ED = emergency department
Please refer to *Appendix J: Qualitative Comparative Analysis (QCA) Methods* for additional detail on the development and validation of the QCA models, including methods for assessing the strength of the pathway relationships with the outcome (that is, consistency) and the relevance of the pathway relationships and the outcome (coverage).

COVID-19 Demonstrated the Utility of Flexible Screening Methods

In the Second Evaluation Report, we found that bridge organizations changed their screening approach in at least three ways in response to COVID-19. First, they transitioned to telephone or telephone and video screenings, which led to the creation of telephone scripts. Second, they found it beneficial to offer screening for people before or after they came to the clinic via MyChart or to provide paper screening at the visit. Third, the location of the screenings shifted to take place more often in the waiting room.

One strategy that bridge organizations adopted was to give screening staff a list of every Medicare and Medicaid patient that receives services at the hospital, or a list of all ED visitors in the past 12 months. Screening staff used those lists to contact people and reported that the lists provided a great deal of flexibility in screening:

> "But essentially, during the pandemic, I think the real drivers were, we got access to [a] census. It's a list of patients, which is huge. It gave us tons of flexibility. It let us to expand our workforce outside of the clinical partners. It let us use interns who would work different hours of the day and thus have more control over how they screened and what they did. So we set more targets. We drove them a little bit harder, for lack of a better way to say that, to do telephonic screening."
>
> — AHC Leader

In addition, bridge organizations centralized screening during the COVID-19 pandemic. This required significant changes in how screening was conducted. Bridge organizations streamlined workflows; redefined roles for navigators and screening staff (for instance, having the same individuals provide both services, which was facilitated by additional staff training); recruited new staff members; and shifted screening to virtual, largely telephonic, formats. Most bridge organizations continued to conduct screening pre- and post-visit via a blend of modes, including telephone, paper, and patient portals, to replace the pre-pandemic in-person interactions. However, despite the successes during the COVID-19 pandemic, several bridge organizations noted that in-person screening still has strong advantages. These include allowing the screening staff members to be seen as a member of the trusted provider, giving them more authority as well as allowing screening staff to express more empathy than can be conveyed over the phone. Going forward, bridge organizations that resumed in-person screening noted that some locations and times can make in-person screening difficult, such as when a patient is in pain in an ED, or when patients in outpatient settings already have multiple forms to fill out.

Most screening staff preferred to obtain consent and screen patients in person rather than by telephone. Several said that over the phone was easier for the patient because they are not looking at someone, they have more privacy than in a busy waiting room, or they are more receptive to answering calls after their provider visit. But many said the phone is more challenging and that in-person interaction allows the screener staff's body language to convey empathy and sensitivity, and the patient sees the screener as part of the providers' team. With phone calls, screeners must first establish that they are affiliated with the provider and that they are not attempting to scam the beneficiary. Several other screening staff said they did not notice a difference, acknowledging that both modes have their advantages and that different screening staff do better with different experiences.

Many bridge organizations reported that the COVID-19 pandemic staffing challenges continued. Staff members within CDSs who had been responsible for HRSN screening were pulled into other pandemic priorities, covering for sick associates, and experiencing burnout and turnover. Some bridge organizations reported that they are still screening with temporary screening staff, interns, and nursing students. Finally, as was reported in the Second Evaluation Report, because of the pandemic-related staffing shortages, bridge organizations continue to use the modified processes for screening and navigation. These processes helped bridge organizations through the height of the pandemic—and continue to help them—by easing the burden on clinic staff while maintaining screening activities.

Engagement in Screening

Beneficiaries Were Generally Receptive to Screening

Most beneficiaries who were interviewed recalled being screened, though some needed prompting by the interviewer. Most beneficiaries believed that screening is appropriate in most health care settings. A few beneficiaries thought that certain conditions should be met first, such as being in a private setting and only after critical care is provided. Beneficiaries all felt that everyone should be screened, which was the intention of the AHC Model. Several beneficiaries noted the importance of screening with intention; they found it disingenuous and dissatisfying when screening did not lead to services. One said that screening is appropriate as long as screening staff are "really trying to help."

Providers and screening staff also reported that beneficiaries were generally receptive to screening. Most bridge organizations said patients responded positively to screening and value having someone who cares. Patients' agreement to screening stems from screening staff clearly explaining the benefits, presenting the screener in conversational flow (not robotic), and connecting the call or visit to the beneficiaries' provider (for example, introducing themselves as from the provider/hospital and having a caller ID from a provider organization). Screening in general is a part of the traditional workflow and patient experience.

Patients who declined screening primarily did so out of fear and mistrust. Some beneficiaries lacked trust in the government or thought telephonic screening was a scam, were afraid that their information will be mishandled (for instance, in circumstances where they do not want their families to know), or had concerns answering some screening questions (for example, personal safety questions). A few beneficiaries described other reasons, such as not wanting to be part of a research study or low reading levels. Several said the patients at the hospital are in a hurry and do not want to stay longer to conduct a screening, or they do not want to do extra paperwork.

> "Because at the end of the day, a quality screening and a quality interaction means that the patient is going to benefit from whatever you're giving them, and they are then going to have even an iota more of trust in a health care employee or a health care setting."
>
> — Screener

Further, screening staff found that successful screenings balanced quality and quantity. Screening staff emphasized that creating good conversations to identify needs is as important as the number of people contacted. These good screening conversations require time, patience, compassion, and empathy.

> "I think it's very important to have them build that trust with the patients so they are able to open up to you about their struggles and what they need and things like that … building that trust, showing empathy, and just the tone of your voice makes a difference in a successful screening and follow-up call."
>
> — Screener

Referral Implementation Updates

CSPs That Received Referrals Were Not Overwhelmed by the Uptick in Volume of Referrals

About one-half (53%) of all surveyed CSPs did not know whether the bridge organization referred clients to them in the past year. The remaining CSPs either could determine that they received referrals from the bridge organization (32%) or knew they did not receive referrals from the bridge organization (15%).

Among the CSPs that reported receiving referrals from the bridge organization in the past 12 months:

- The median number of clients referred from the bridge organization was 43.
- 52% (n = 55) had a standardized referral process (protocol, form, or standard operating procedure).

- 33% (n = 34) had an electronic data system to share client referral information between the two organizations.

These results indicate that, among CSPs that were aware of referrals coming from the bridge organization, the referral burden from bridge organizations was not high—the median referral burden was about four clients per month. Many CSPs may have been unsure of how many referrals came from AHC bridge organizations in the past 12 months because they did not have a data system to track. One-half of surveyed CSPs (50%) reported not having a data system to track services the beneficiaries receive, either from themselves or from other CSPs (that is, from a partner organization in the community). Although data suggests surveyed CSPs that could identify referral sources did not perceive many additional referrals due to AHC, interviewed CSPs expressed substantial burden associated with AHC participation due to changing staffing or workflows, data sharing, and alignment activities (see **Chapter 9:** Lessons Learned for more details).

In addition, CSPs received referrals for beneficiaries who reported not needing those services or who were inappropriate or ineligible for the services the CSP provided. One CSP wrote, "A challenge we have experienced is the referral process—we will sometimes receive a referral via the online electronic database system, and we reach out to clients and they [are] unaware of why we are calling. We have very few staff members, and it is very time-consuming to attempt to connect with referrals when the services are then denied by the client." Another CSP wrote about being connected to a beneficiary who refused services, "Quite often, people who are referred to us as being in need of food assistance very adamantly tell us that they are not in need of food and do not want our help." The latter quote may suggest the importance of capturing the beneficiary's perception of their needs into the screening and navigation process so more beneficiary connections to CSPs are successful and appropriate. Incorporating beneficiary perspectives may also reduce CSP burden and time spent following up on inappropriate or unwanted referrals.

CSP survey data also showed notable differences by track in referrals CSPs received from bridge organizations. Among surveyed CSPs reporting they received referrals from the bridge organization, a higher proportion of CSPs working with Assistance Track bridge organizations received these referrals: 45% reported receiving referrals from the bridge organization in the past year compared to only 25% of CSPs working with Alignment Track bridge organizations.

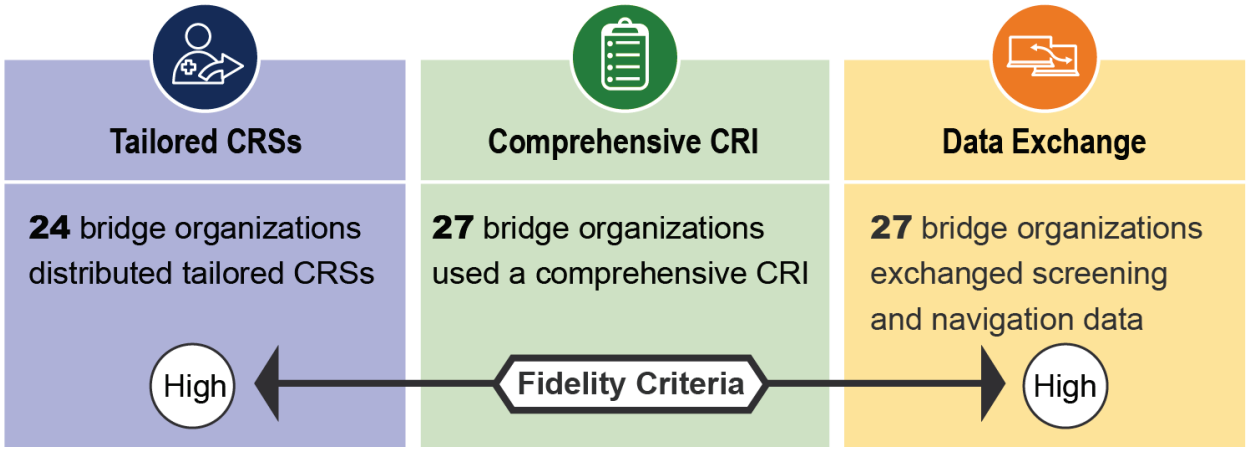
Bridge Organizations Issued Referrals as Intended

One of the model requirements was to give beneficiaries a community referral summary (CRS). This document summarized beneficiaries' screening results. The AHC Model required CRSs to be tailored to beneficiaries and their unique needs. The CRSs also commonly included supporting info such as CSPs' hours of service and contact information. Less commonly, CRSs contained information on eligibility requirements for specific CSP services. The information about CSPs was based on each bridge organization's community resource inventory (CRI). The CRI could have been based on an existing inventory of CSPs or could have been developed specifically for AHC.

We reviewed example CRSs and bridge organization's standard operating procedure documents to determine fidelity to model requirements around the CRS and supporting activities. Overall, bridge organizations exhibited high fidelity with their CRSs (see **Exhibit 5-6**). First, screening and referral standard operating procedures indicated that nearly all bridge organizations (24 of 27) distributed CRSs that were tailored to beneficiaries' needs. Second, interviews with AHC leaders suggest that 27 of 28 bridge organizations used a comprehensive CRI with information on CSPs that may be able to help address HRSNs. Third, survey responses from AHC leaders reflect that 27 of 28 bridge organizations exchanged screening and navigation data.

Exhibit 5-6. Fidelity Analysis of Bridge Organizations Community Referral Summaries

Overall, bridge organizations exhibited high fidelity with their CRSs with respect to tailoring, comprehension, and exchanging data.



Source: AHC Model Fidelity Assessment; see **Appendix I** for details
Definitions: CRI = community resource inventory; CRS = community referral summary

The Use and Usefulness of Electronic Referral Platforms

Bridge organizations commonly used software or computer-based platforms or tools (for example, NowPow) to maintain their CRIs and generate CRSs. These systems included information such as the location and contact information for community-based services. Bridge organizations reported benefits of using these tools. Several interviewees noted that they had integrated these tools into their workflow, and a few discussed using the tools to identify relevant resources for their patients. Some bridge organizations also used these tools for navigation purposes, such as communicating with CSPs and patients and to follow up on referrals. Although these tools were an opportunity to serve patients more efficiently, a few bridge organizations felt that their tool was lacking. For example, some tools included resources for some HRSNs but not others.

> "So, I think something that was really important for us was our ability, and that's where the NowPow technology was so critically important to our implementation, was the ability to automatically produce these high-quality, up-to-date, tailored community resource summaries at point of care. So, I mean, that was really a critical piece to get past that barrier."
>
> — AHC Leader

Bridge organizations commonly used electronic referral platforms to facilitate the referral process. Staff members from several bridge organizations noted the increased ease and efficiency of using their tool to identify resources and create the CRS. However, staff members from a few bridge organizations highlighted drawbacks of using their tool to make referrals. Two interviewees indicated mistrust or a lack of comfort, and one interviewee cited organizational legal barriers. When sharing the CRS with patients, several bridge organizations reported sharing the CRS with patients via email or as a hard copy. Two bridge organizations explicitly stated that the format is based on the patient's preference.

> "So, once we identify the person has a need, let's say for housing, we do provide that [resource]out of a text, or by email for the person. It depends on the person's choice. So we should ask, 'How do you want us to give you these resources?' Then I say, 'I could give it to you either by text or email.' The person decides, and then we send out that information for resources."
>
> — Screener

Most bridge organizations that discussed the referral follow-up process described a manual workflow that relies on individual staff to track and reach out as needed.

Bridge organizations reported using multiple strategies to identify, verify, and maintain the information in the CRI. Many bridge organizations used informal (text messages, ad hoc conversations) or formal (team meetings, scheduled written communication) strategies that allowed team members to share resource information with each other. Staff from many bridge organizations said that they themselves or another staff person individually and manually searched for new resources or updates to existing resources. Staff from several bridge organizations noted communicating directly with CSPs to retrieved updated information. Regardless of the process, bridge organizations reported that maintaining the CRI was labor- and time-intensive.

Bridge organizations also reported a variety of strategies to address gaps in community resources. Although most interviewees reported that gaps in resources often remain unresolved, some also shared proactive methods they used. For example, staff members from several bridge organizations said that they ask team members, community members, and community organizations for ideas or suggestions of resources that might help resolve the patient's needs. Staff members from a few bridge organizations reported notifying their supervisor if they identified community resource gaps.

> "[We] use [the referral tool] on a daily basis, and it just helps us ensure that that warm handoff happens between an agency, and we can actually see, yes, they were connected and their follow-up is ongoing. And we use it all the time. And I really think, being in this program now for a few years, I've seen how much this has improved our program and the quality of care that we're able to provide and how much more it makes us successful in connecting patients to actually connecting to those services and being able to see the results. So I think we're definitely grateful to have that platform, and we hope it only keeps growing."
>
> — Navigator

Our evaluation did not find a substantial difference between Assistance and Alignment Track bridge organizations on integrating the referral tool into their workflow. However, Alignment Track bridge organizations were more likely to use the referral tool to track referral status and follow up if needed:

The Impacts on Usual Care for Screening and Referral

Finally, we examined the impact on usual care for screenings and referrals. Usual care in offices is to provide screening as one of several forms for the patient to fill out. Office staff stated that they are fortunate to get them all completed prior to the patient being called back. While most bridge organizations emphasized that universal screening was simpler and less conspicuous, a few bridge organizations appeared to be screening only Medicare and Medicaid patients with their post-visit screening lists or in locations that had higher levels of navigation-eligible beneficiaries, as was discussed in the high screen/low navigation section above. One bridge organization added that screening is also needed at other community-based organizations, not just in the clinical setting. A few mentioned needing resources for dedicated screening as sites are too busy with clinical tasks. Finally, some bridge organizations are consolidating their screening forms and streamlining their questions post-AHC:

> "We noticed that generally the health-related social needs that were addressed would be one to two but when the pandemic hit, it was all of them. So we were able to address a lot of that. We ended up hiring another navigator because of the influx of cases and needs for our beneficiaries."
>
> — Screener

Conclusions and Lessons Learned

HRSN screening was transformative in changing how clinical staff viewed health care, broadening the perspective of health care delivery to encompass social needs. Although screening rates were stable throughout the model, variation did exist between bridge organizations, likely because of different approaches such as combined screener/navigator roles. Data also show that having more screening staff leads to higher screening rates for clinical bridge organizations, and having a large number of physical locations leads to higher screening rates for

nonclinical bridge organizations. Some bridge organizations did more targeted screening, identifying beneficiaries for AHC screening before their arrival at outpatient appointments, which is in contrast with the stated goal of conducting universal screening. There are many possible explanations for the targeted screening. Staffing issues exacerbated by the pandemic may have led to a desire to focus on those most likely to be eligible to conserve resources. Some bridge organizations focused more on reaching screening goals than on providing navigation, leading to a backlog of navigation requests. The use of staff to conduct both screening and navigation may have led to higher navigation acceptance rates due to not having to recontact the same person.

Although the pandemic affected screening and referral numbers, bridge organizations' adaptations provided some important lessons learned. Specifically, a hybrid approach to screening that encompasses multiple ways of screening patients, both at care sites as well as in their homes and workplaces, can be useful in reaching the greatest number of beneficiaries. In fact, many bridge organizations are using a hybrid approach for screening post-AHC. Bridge organizations called for additional changes, such as dedicated screening staff (as sites are too busy at times for other staff to screen beneficiaries), screening at other community-based organizations, and shorter screening forms that are streamlined with non-AHC screening.

In addition, although beneficiaries are generally receptive to screening, some refuse screening because of mistrust, suggesting more work may be needed to build that trust. Greater outreach may be useful to explain the program and benefits of screening to the communities. Screening also is only useful when resources are available to help address the identified needs. Lastly, the screening location and timing is an important consideration. For example, patients may not be receptive to receiving screening while in the ED and waiting on critical care.

For referrals, a highly-functional electronic data system can help alert CSPs when a person is coming in from a health care screening, track their organization's and the beneficiary's response to their referral, and capture the beneficiaries' perceptions of the referrals provided. Discrepancies in reported need may hurt both CSPs' and beneficiaries' overall receptiveness to screening and navigation.

Exhibit 5-7 highlights key challenges for screening and referrals and promising strategies for addressing those challenges. The exhibit also includes lessons learned related to approaches to facilitate screening.

Exhibit 5-7. Challenges and Lessons Learned

- Difficulty establishing trust and reaching beneficiaries hindered screening.
- Staffing issues caused by COVID hindered screening and referral.
- Community resource inventories (CRIs) required more resources to keep up to date than anticipated.

- Flexibility for telephonic screening was so successful that most bridge organizations planned to continue it in a hybrid fashion.
- Electronic referral systems were immensely helpful in improving referral efficiency.

- Having more screeners and/or screening locations maximizes the number of beneficiaries that get screened.
- A hybrid approach to screening appears to work best at reaching a diversity of beneficiaries.
- More work is needed to build trust in screening, particularly with virtual screening.
- Highly-functional electronic data systems are crucial to ensuring a high rate of referrals, particularly in alerting CSPs ahead of a beneficiary reaching out.

Chapter 6: Navigation

In the Accountable Health Communities (AHC) Model, bridge organizations referred beneficiaries who have a health-related social need (HRSN) and two emergency department (ED) visits in the year prior to navigation. Navigators were expected to contact the beneficiary within 2 weeks of the screening visit. Once the navigator reached a navigation-eligible beneficiary by telephone, in person, or by text message, the two discussed the beneficiary's HRSNs and established an action plan to address them. The beneficiary or navigator then set up an appointment with one or more community service providers (CSPs) to support the beneficiary's access to resources.

Key Takeaways

- Many bridge organizations completed patient-centered action plans for a high proportion of beneficiaries who opted into navigation.
- Navigators emphasized the importance of flexibility to tailor navigation to individual beneficiary needs and preferences.
- Although beneficiaries sometimes had another caseworker, navigation provided as part of the AHC Model was mutually reinforcing, not duplicative.

(continued)

This process applied to all navigation-eligible beneficiaries in the Alignment Track and those randomly assigned to navigation in the Assistance Track. In the Assistance Track, beneficiaries assigned to the control group received a tailored referral to community services but no navigation assistance.

The COVID-19 pandemic catalyzed several innovations and adaptations in navigation; these were the focus of the Second Evaluation Report. This report focuses on those innovations, adaptations, and challenges that continued into later years of the model.

This chapter begins with the results of an analysis of beneficiaries that accepted navigation and their reasons for doing so. Next, the chapter details the navigation workflow, including action plan creation, strategies used to stay updated on resources, collaboration with non-AHC caseworkers, and challenges faced. We then describe how bridge organizations perceive the value of navigation. The chapter concludes with insights on lessons learned.

Key Research Questions

- How did bridge organizations launch AHC interventions? How did the planned approach and fidelity to the planned approach vary across bridge organizations and over time?
- What kinds of unanticipated challenges arose during model launch?
- Were there differences in findings for key outcomes by subpopulations based on sociodemographic characteristics, clinical characteristics, or HRSNs?

Key Takeaways (continued)

- Navigators cited challenges staying updated on available resources and providing navigation when the community lacked necessary resources.
- Most navigation-eligible beneficiaries (nearly 80%) accepted navigation.
- Black non-Hispanic and Hispanic beneficiaries were more likely to accept navigation than White beneficiaries.
- Beneficiaries with less than a high school education were more likely to accept navigation than those with at least a high school education.
- Beneficiaries with two or more HRSNs were more likely to accept navigation than those with only one HRSN.

This chapter presents findings from quantitative and qualitative data to address these research questions. Quantitative findings are based on two data sources:

1. AHC screening and navigation data (May 2018–April 2023)
2. Data on the completion rates for patient-centered action plans

Qualitative findings are based on semi-structured interviews with three groups of AHC stakeholders:

1. Bridge organization leaders, clinical delivery site staff, navigators, and screeners (January–April 2022)
2. CSPs providing services to beneficiaries served by the AHC Model (January–April 2020, September–November 2021)
3. Beneficiaries served by the AHC Model (July–September 2020, February–April 2022)

See **Appendixes B, I, K, L,** and **O** for additional details on the methods for the analysis reported here.

Most Navigation-Eligible Beneficiaries Accepted Navigation

Most navigation-eligible beneficiaries (79%) opted into navigation services (**Exhibit 6-1**), slightly higher than the acceptance rate (77%) reported in the Second Evaluation Report; 15% opted out of navigation. The remaining 6%

could not be identified as either opting into or out of navigation services because data were missing (including the possibility of not having been contacted and offered navigation services). Interestingly, more Alignment Track beneficiaries (83%) opted in for navigation than Assistance Track beneficiaries (71%; data not shown). This is likely because the Alignment Track has more beneficiaries from marginalized populations. Specifically, as noted in **Chapter 2:** Characteristics and HRSNs of Navigation-Eligible Beneficiaries, navigation-eligible beneficiaries in the Alignment Track were more likely to be Black or African American, be older, be enrolled in Medicaid, and have a behavioral health condition with multiple HRSNs.

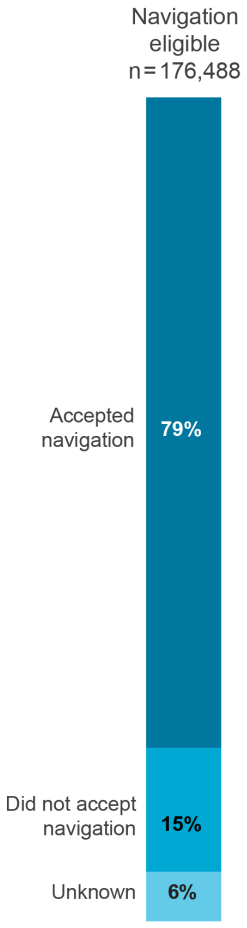
Certain Sociodemographic, HRSN, and Beneficiary Health Characteristics Were Associated With Navigation Acceptance

Chapter 2: Characteristics and HRSNs of Navigation-Eligible Beneficiaries descriptive findings showed that navigation-eligible beneficiaries tended to be Medicaid-only enrollees and were more likely to be from racial or ethnic populations, have less than a high school education, multiple chronic conditions, and two or more HRSNs. Further, as noted above, most navigation-eligible beneficiaries accepted navigation. We examined whether any beneficiary, bridge organization and community characteristics were associated with navigation acceptance. We ran three regressions for each outcome measure: one for each track and an overall model that combined navigation-eligible beneficiaries in both tracks. Results for selected beneficiary characteristics for navigation acceptance regression findings for all beneficiaries, Alignment Track beneficiaries only, and Assistance Track beneficiaries only are shown in **Exhibit 6-2**. See **Appendix B** for regression methodology details, **Appendix B, Exhibit B-14** for descriptive statistics on the sample of navigation-eligible beneficiaries who chose to accept or decline navigation services, **Appendix B, Exhibit B-15a** for full regression results, and **Appendix B, Exhibits B-15b** and **B15c,** for results for Alignment Track and Assistance Track, respectively. We found that individuals with certain sociodemographic, HRSN, and health characteristics were more likely to accept navigation.[11]

Black non-Hispanic and Hispanic beneficiaries were more likely to accept navigation than White beneficiaries. Previous evaluation reports found that people from racial and ethnic minority populations were more likely to be navigation eligible than screened beneficiaries. This analysis further supports the finding

Exhibit 6-1. Navigation-Eligible Beneficiaries' Opt-in Status

Most navigation-eligible beneficiaries opted in for navigation services.



Source: AHC screening, referral, and navigation data
Time Frame: May 2018–April 2023

[11] Throughout this section, the estimated impacts on likelihood represent a difference in odds rather than a difference in probability.

that the AHC Model was successful at supporting beneficiaries who had one or more HRSNs and were members of historically marginalized populations. Black non-Hispanic and Hispanic beneficiaries were respectively 20% ($p < 0.01$) and 19% ($p < 0.01$) more likely to accept navigation than White beneficiaries. Other research has found a similar result: non-Hispanic Black participants with one or more social risk factors were more likely to accept assistance with their needs (De Marchis et al., 2020). Results were similar across tracks.

Medicare-Medicaid dually eligible beneficiaries were more likely to accept navigation than Medicare-only beneficiaries. Compared with Medicare-only beneficiaries, Medicare-Medicaid dually eligible beneficiaries were 7% ($p < 0.10$) more likely to accept navigation. Medicaid beneficiaries in the Alignment Track were 11% ($p < 0.05$) more likely to accept navigation than Medicare-only beneficiaries.

Beneficiaries with less than a high school education were more likely to accept navigation than those with at least a high school education. Previous evaluation reports found that beneficiaries with less than a high school education were more likely to be navigation eligible than screened beneficiaries. This analysis further supports the hypothesis that beneficiaries with higher education may have greater access to resources and may not feel they need navigation services. Beneficiaries with less than a high school education were 16% more likely ($p < 0.01$) to accept navigation than those with at least a high school education. Results were similar across tracks.

Beneficiaries with two or more HRSNs were more likely to accept navigation than beneficiaries with only one HRSN. As noted in **Chapter 2:** Characteristics and HRSNs of Navigation-Eligible Beneficiaries, having multiple social and behavioral risk factors is related to poorer health outcomes and greater health care utilization (Caleyachetty et al., 2015; Echouffo-Tcheugui et al., 2016; Stein et al., 2010). Therefore, beneficiaries with multiple HRSNs have the most to gain from effective navigation. Beneficiaries with two or more HRSNs were 62% more likely ($p < 0.01$) to accept navigation than beneficiaries with only one HRSN. This finding suggests that the AHC Model was successful at connecting with beneficiaries who have the greatest need. These results were particularly evident in the Alignment Track, where beneficiaries with two or more HRSNs were 81% more likely ($p < 0.01$) to accept navigation than beneficiaries with only one HRSN. In the Assistance Track, beneficiaries with two or more HRSNs were 44% more likely ($p < 0.01$) to accept navigation.

Interviews with bridge organizations provided key insights into these differences by track. Respondents from the Alignment Track indicated that the discussions and engagements with the advisory board enabled them to get to know the community service providers. Moreover, Alignment Track navigators felt more confident in their knowledge of the organizations they were referring people to. This increased awareness and knowledge of the community resources available could have increased referrals, and navigators could have been better at "selling" the services because they knew more about them. It is unclear whether navigators in the Assistance Track would have the same level of knowledge without the benefit of ongoing engagement with CSP through the advisory board.

Assistance Track beneficiaries with diabetes were more likely to accept navigation than those without diabetes. Beneficiaries with both comorbidities and HRSNs must manage competing priorities, which increases their burden and may affect their health care use (Verdecias et al., 2020). Therefore, beneficiaries with comorbidities may be more likely to accept navigation to help them address their HRSNs and manage their chronic conditions. Beneficiaries with diabetes in the Assistance Track were 17% more likely ($p < 0.01$) to accept navigation than beneficiaries without diabetes.

Exhibit 6-2. Navigation Acceptance for Subgroups Who Were Navigation Eligible

Individuals with certain sociodemographic, HRSN, and health characteristics were more likely to accept navigation.

Characteristics	Expected Direction of Impact	Overall (n = 118,543)	Alignment Track (n = 78,163)	Assistance Track Intervention Group (n = 40,380)
Black, non-Hispanic*	⩓	↑	↑	↑
Hispanic*	⩓	↑	↑	↑
Other race*	⩓	NS	NS	NS
Medicaid‡	⩓	NS	↑	NS
Dually eligible‡	⩓	↑	NS	NS
Less than a high school education	⩓	↑	↑	↑
Diabetes	⩓	↑	NS	↑
Number of screened HRSNs > 2	⩓	↑	↑	↑

Legend: ⩓ Higher ◇ Could be lower or higher

⩓ Expected beneficiaries with the characteristic to be less likely to accept navigation compared to the reference group.

◇ Expected no difference in navigation acceptance compared to the reference group.

↑ Beneficiaries with the characteristic were significantly more likely to accept navigation compared to the reference group.

↓ Beneficiaries with the characteristic were significantly less likely to accept navigation compared to the reference group.

NS Beneficiaries with the characteristic had no significant difference in accepting navigation compared to the reference group.

Source: AHC screening, referral, and navigation data
Methods: Logistic mixed effects regressions
Time Frame: May 2018–April 2023
*P-values were calculated using White as the reference group.
† P-values were calculated using Medicare only as the reference group.
Note: "Other race" includes American Indian/Alaska Native, Asian, Hawaiian or Other Pacific Islander, and those who identify as multiple races.
Definitions: HRSN = health-related social need.

Bridge organizations provided insights into the factors they believed support acceptance of navigation. Several key informants said that they keep a positive mindset, stay patient, and help patients as much as they can. This chapter includes several examples of navigators going above and beyond (see: *Bridge organizations descriptions of the value of navigation extend beyond the AHC Model*).

> "I think that **for successfully navigating clients, mode of communication matters**. So with us screening an ED population, we're always calling people to screen them, but for follow-ups, I've noticed that with people like 60 and over, phone calls and voice mails work best, and younger populations, they respond more to texting. Sometimes email too. But so I got to where when I would screen someone and if they qualified and opted in for navigation, I would ask what mode of communication do you prefer, when I follow up? So when before, I would call them after 2 weeks to follow up, they might not answer. If I text them, they immediately respond back."
>
> — Bridge Organization Screener/Navigator

Communication style also is a key factor in getting beneficiaries to accept and sustain a successful navigation relationship. Several navigators highlighted the importance of building trust with the clients and adopting various approaches to mitigate any hesitation or reluctance. A few bridge organizations mentioned the importance of receiving training for engaging and communicating with clients with limited health literacy. The mode of communication can also affect navigation acceptance and success. Some clients prefer phone calls, whereas others might prefer email or text messaging.

Navigators frequently highlighted that bad past experiences weighed heavily on their clients' perceptions of navigators, resources, or both. Some clients noted that they had previously "gotten the run around" or had been repeatedly referred to the same ineffective resources. Clients also expressed fear of rejection along with fear of the stigma and shame associated with needing services.

> "It's people who have been really burned by the system who they just feel like, 'You're just going to give me a bunch of numbers. You're never going to call me back. **I don't want to tell my story again. I've told it three times today**.' People who are very, very frustrated. Those are the people who have said no to me."
>
> — Bridge Organization Screener

> "I think it's all about kind of how you sell the program and being very open and honest about your role, and how often you'll be following up, the things that you can do to support the patient, because we can't fix everything."
>
> — Bridge Organization Navigator

A few navigators mentioned the importance of being open and honest when presenting navigation to clients to overcome this mistrust. They need to explain the role of a navigator and potential limitations of navigation, such as when there are insufficient community resources for a particular need. A handful of bridge organizations also commented on the importance of authenticity in communication with clients, highlighting how empathy and grace encourage navigation acceptance and support needs resolution.

Many Bridge Organizations Demonstrated Fidelity to AHC Model Requirements by Completing Patient-Centered Action Plans for a High Proportion of Beneficiaries Who Opted Into Navigation

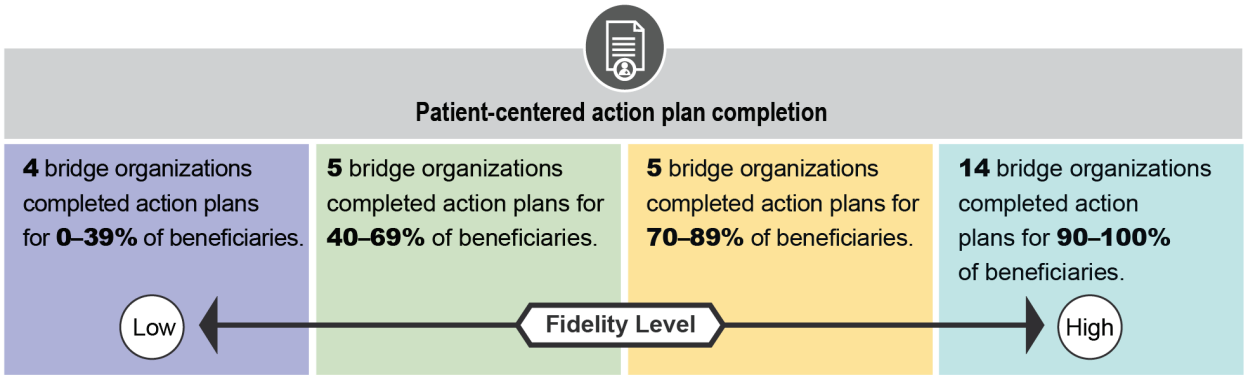
Patient navigators were required to develop patient-centered action plans to resolve the HRSNs of beneficiaries who accepted navigation services. The AHC Model Funding Opportunity Announcement specified that the action plan should follow a personal interview with the beneficiary to identify factors that could impede HRSN resolution. The navigator would then propose strategies for resolving unmet needs based on the interview discussion and beneficiaries' stated needs and preferences. As part of the fidelity assessment, described further in **Chapter 9:** Lessons Learned and **Appendix I**, the evaluation team reviewed AHC program data to determine how often bridge organizations met this requirement. Because this milestone was monitored only among beneficiaries who opted into navigation after April 30, 2020, we restricted the program data to after that date.

Of the 28 bridge organizations for which we reviewed data, 14 (50%) completed patient-centered action plans for 90% or more of their navigation-eligible beneficiaries who opted into navigation services after April 30, 2020, suggesting high fidelity to AHC Model requirements (**Exhibit 6-3**). Across bridge organizations, an average of 74%

of all AHC Model beneficiaries who were eligible for and accepted navigation services had an action plan completed. Only four bridge organizations completed patient-centered action plans for less than 40% of eligible beneficiaries. Assistance Track and clinical bridge organizations had a larger percentage of beneficiaries with completed action plans than those in the Alignment Track and nonclinical bridge organizations, respectively.

Exhibit 6-3. Patient-Centered Action Plan Completion (N = 28)

Fourteen bridge organizations demonstrated fidelity to AHC Model requirements associated with navigation by completing patient-centered action plans for a high proportion of beneficiaries who opted into navigation.



Source: AHC Model Fidelity Assessment; see **Appendix I** for details.

Patient navigators supported the action plan requirement and other efforts to tailor their approach on the basis of beneficiaries' individual needs and preferences. They described the action planning process as an opportunity to prioritize needs for navigation assistance, set expectations about next steps and their timing, and overcome beneficiary concerns.

Action Planning Helped Navigators Deliver Patient-Centered Services

The process of developing an action plan often helped navigators better appreciate that the needs that seemed most critical from an outsider's perspective were not always the needs that patients were concerned with. Navigators could be more effective by understanding beneficiaries' point of view and tailoring their approach accordingly. The following quote from a clinical delivery site (CDS) staff member describes the value of action planning.

> "I guess an example would be, talking to a patient and realizing… she was living with someone, she wasn't homeless, but couch surfing... The patient was communicating that her primary concern was getting her own place in her own name. And we read that as, 'she wants to have her own place for her and her child'... So during that conversation, she communicated that she had opportunity for employment; however, she didn't have transportation to get to the employment opportunity. And then the [employment] opportunity that she mentioned wasn't necessarily as close to her as possible. So we tried to meet the patient where she was and communicate to her the importance of establishing an employment opportunity that would be [convenient] and long-term to secure funding for her… to be able to pay a deposit and then pay for rent and things like that. Just starting out initially there, and listening to the patient and then saying, 'Okay, well here, this is your main concern, and we do want to help you get this apartment, but this is a step-by-step way that we can get to that… Because of course we can give [the patient] resources for rental assistance… But then what's going to happen next month?'"
>
> — CDS Staff Member

Action planning thus allowed navigators to more deeply understand their patients' lives and tailor their services to create a better experience for AHC beneficiaries. As one AHC leader concluded, "I think, around navigation, we have learned the incredible importance of person-centered care… Really grounding the action plan in the beneficiaries' needs and preferences to address their needs, and not on the 'systems assumptions' on what they should do about it."

Navigators Used Multiple Strategies to Stay up to Date on Available Community Resources

To successfully execute an action plan, navigators needed to know which community resources to refer beneficiaries to. As in the previous two evaluation reports, navigators emphasized the importance of being up to date on available community resources. As mentioned in the Second Evaluation Report, during the COVID-19 pandemic, navigators developed many methods to stay up to date on fluctuating CSP resources, hours, and modes of operation (for example, in-person, drive-through, or home delivery). Navigators have continued several of these strategies. **Exhibit 6-4** presents the types of strategies navigators use to update resources and examples for each category.

Exhibit 6-4. Strategies Navigators Use to Maintain Knowledge of Resources

Navigators stayed involved and proactive to keep informed of available community resources to refer their beneficiaries to for assistance.

Internal Communication	External Networks with AHC Model	Innovation Outside of AHC Model
Many bridge organizations have open lines of communication among navigation teams, including: • daily or twice daily team calls • group text messaging threads • email • online chats	Many bridge organizations build networks with their communities, such as community advisory boards, or bring community advisors on board to learn about community resources. Bridge organization members also get involved with their communities on their own time.	Many navigators used creative methods to find resources such as: • reaching out to contacts at 211 • calling churches • working with legal aid • connecting with fire stations that give away smoke detectors

Source: Interviews with AHC Model stakeholders including bridge organization leaders, clinical delivery site staff, navigators, and screeners

In addition to the strategies in Exhibit 6-4, several navigators mentioned their efforts to regularly review resources to check whether they were still available and refamiliarize themselves with the resources they are referring their clients to. They did not want to send all their clients to one CSP and overwhelm them. Navigators also mentioned advising their clients to call ahead to CSPs before showing up to limit them being turned away at the CSP. Knowing that mistrust and frustration were barriers to accepting navigation, navigators incorporated these concerns into their work to set clients up for success in reaching out to CSPs.

Navigators Collaborated with non-AHC Caseworkers to Support Clients in Mutually Reinforcing Ways

Community resources were not the only source of beneficiary support. Findings presented in the Second Evaluation Report indicated that beneficiaries received support from medical/health insurance workers and other caseworkers. We hypothesized that this additional support might have been one of the reasons that AHC Model navigation did not increase connection to community services and HRSN resolution for most beneficiaries. This support was available to those enrolled in the AHC Model and those in the control group (who received a list of resources but no navigation). To investigate further, we asked navigators how often a beneficiary who accepts navigation is already working with another caseworker. Several bridge organizations reported that about 10% to 20% of beneficiaries who accepted navigation were working with another caseworker. A few bridge organizations said the beneficiaries they work with were almost always working with someone at social services.

Given the ongoing challenge of trying to provide high-quality navigation to several clients, navigators had several approaches to avoid duplication of services. When they learned of other caseworkers, many navigators would attempt to collaborate with them to have "two brains" on an issue. They helped each other troubleshoot and tap into both of their networks to locate difficult-to-find resources. In other situations where collaboration was not possible because of privacy restrictions or client preferences, several navigators would only work on needs that were not currently being worked on with the other caseworker. A few navigators would try to reroute their client back to their original caseworker through email or outreach using electronic health records. A few bridge organizations noted that the navigator would step in to assist the beneficiary if the beneficiary felt their current caseworker was not helpful.

Navigators emphasized the benefits of having additional support for beneficiaries, especially when experiencing the challenge of limited community resources. When discussing potential duplication, several navigators said that they would refer clients to other caseworkers if they needed assistance that was beyond the scope of the navigator's resources or outside of the AHC Model. For example, one navigator said that if beneficiaries are approaching the 12-month mark, but their needs are not resolved, the navigator refers them to a caseworker through their county to provide ongoing support.

> "I think maybe a really important takeaway that I would like folks to understand is that when individuals are engaging in any kind of navigation, it shouldn't replace the other supports that they have. Many times, people need more support. They need all the support they can get. And where we don't want to be duplicating efforts, I don't want to be calling and getting somebody transportation that their nurse case manager is getting them. We don't want to have that kind of duplication. But **we want to work together on behalf of that individual to get all the things that they need**."
>
> — AHC Navigator

Navigators Had Mixed Experiences Using Referral Platforms to Support Navigation

Several bridge organizations used referral platforms to support navigation implementation, most frequently referencing community resource referral platforms such as NowPow, Healthify, FindHelp, and many others that were created for health care systems or for use in the AHC Model. These platforms link beneficiaries to resources within their communities. Some of the platforms allow navigators to track follow-ups to be sure the beneficiary connected with the referred CSP. Some allow navigators to directly text, email, or print referrals for their clients, streamlining the navigation process.

Considerations for using technology to support navigation include the usability for navigators and the technology's ability to stay updated on resources. Potentially because of these considerations, a few navigators said they preferred simpler solutions. They would access their resource database and send resources or referrals to their clients through text messages. Another bridge organization leader mentioned that complex technology can be

challenging, so the navigators at their organization preferred using Microsoft Excel to build action plans for navigating patients. They said, "simple is sometimes better, especially when we want them to focus on the navigation with the patients and not the documentation… We want it to be as easy as possible."

Lack of Community Resources Hampered Navigators Throughout Model Implementation

Across all years of the model, bridge organizations have shared the community-level challenge of not being able to meet client needs because of lack of resources. That theme arose again in conversations with several key informants at bridge organizations. This lack of resources is frustrating for navigators, who do their best to support their clients, and can lead to stress and burnout.

The Stressful Experience of Navigating Without Sufficient Resources

"I'd say for me, something that can be really tough is not having a resource for a patient depending on what their need is, and also kind of how to break that to them. Because it's kind of unfortunate to tell someone who might be experiencing homelessness if you've tried all these resources that we have that there might not be something else that is available for them. Or also just hearing their stories and hearing what they're experiencing, it can be really hard to continue your day after you hear someone crying to you on the phone about something and knowing that there's only so much that you can do just really trying not to take that home and stress. It's so hard in this line of work specifically when you hear it all day, every day, I think it can be really, really, really hard for me personally."

— AHC Navigator

Similarly, one bridge organization leader described getting people to the CSP as the hardest part of navigation. They believe that identifying the CSP is simple, but getting people connected to those providers and ensuring the CSPs have resources to help them is the ultimate challenge. To overcome these challenges, when navigators could not connect a client to a specific resource, they would reframe the conversation. These navigators would give the client a sense of what is available. One navigator said that, in the unfortunate situation where there were no community resources, they would work with their client to identify other resources within the client and navigator's networks (for instance, client's friends and family, or external caseworkers) who might help them.

A few bridge organizations described a new challenge: With the sustained workflow changes that came from the COVID-19 pandemic, navigators were missing the in-person connection of seeing coworkers and clients. One bridge organization leader explained that navigators like the positive feedback of working face-to-face with clients, and that experience is dampened over the phone. They also felt that by being in person, the navigator can "be authentic and match communication style with the patient." By contrast, several other bridge organizations returned to in-person work and navigation as soon as it was safe to do so. A few bridge organizations mentioned using a hybrid model or switching between telephonic and in-person navigation depending on staff availability.

Bridge organizations shared challenges related to participating in the AHC Model, including difficulty achieving the navigation milestones established by CMS. Several bridge organizations described being on corrective action plans[12] and working to strike a balance between delivering high-quality navigation while hitting required milestones. One bridge organization leader said they found the best way to support their navigators was by not discussing numbers with them and encouraging them to focus on the quality of navigation they were delivering. They said, "My navigators never knew about numbers… I pushed them to serve people well, and you can find the difference… [from the] focus on quality."

The Value of Navigation Extends Beyond the AHC Model to the Relationships Between Navigators and Beneficiaries

Findings from the Second Evaluation Report demonstrated that navigation affected ED outcomes; beneficiaries who were navigated had lower ED use than those in the control group. To further explore this finding, key informants at bridge organizations were asked about some of the intangible benefits of navigation. Many key informants said that the value of navigation is that beneficiaries feel like they have someone on their side, checking in to support them. During the onset of the COVID-19 pandemic, respondents welcomed phone calls from navigators to help mitigate their social isolation. Now that people are going out in public again, beneficiaries still appreciate having a navigator "in their corner."

> "It's just knowing that **someone's in your corner,** having a navigator there to, 'Oh, I've tried to reach out to this one. Do you have any other options?' So I think you can provide [a referral] to them, but it's really are they willing **to go that extra step and find something if that doesn't work**?"
>
> — Bridge Organization Navigator

Informants mentioned that mistrust was a barrier to patients accepting navigation. [13] The patients may not understand how the information will be used. If they are parents, they might worry that if they reveal that they do not always have enough food for their children, they could be reported to government authorities. Having navigators, who are sometimes community health workers, perform the screening instead of clinicians sometimes helped allay some concerns and build trust with patients. Navigators also were able to spend more time developing relationships with beneficiaries, which increased beneficiaries' trust in the health care system.

As described in **Chapter 3:** Community Capacity to Address HRSNs (community capacity), there were not always enough resources to fully resolve needs. When a beneficiary was unable to access resources at one CSP, the navigator would work with them to look for additional options. Navigators said that even if needs were not fully resolved, the relationship they developed with the beneficiary was still valuable.

From the First Evaluation Report, bridge organizations have shared examples of how navigators go above and beyond AHC Model requirements. During the third round of interviews, many bridge organizations shared stories about how their navigators did whatever they could to support the beneficiaries they served.

- Even if needs were resolved at the time of screening, the navigator would provide anticipatory guidance for future needs.
- Navigators would give clients resources and coaching on unemployment benefits and help them find a job.
- To improve financial literacy, navigators would work with clients to develop budgets.

[12] A corrective action plan is a step-by-step plan of action developed to improve processes or methods to achieve targeted outcomes

[13] A recent article in *Modern Healthcare* (Hartnett, 2023) also highlighted that providers find that some patients are reluctant to reveal information about their HRSNs (Hartnett, 2023).

- One navigator helped a client get a driver's license to be able to request a birth certificate.
- One navigator reached out to several connections to help a client who was homeless get a wheelchair.
- One navigator provided appointment reminders to a client with mental health appointments until they could get wraparound services.
- One navigator delivered food from a local food pantry to a client with food needs.

These examples demonstrate how navigators would "scrape together" whatever services or resources they could for their clients. This helped them to succeed both in the short term, such as avoiding an ED visit, and in the long term. Bridge organizations encouraged navigators to focus on these types of "smaller wins," realizing that they all made a difference when looking at the bigger picture and building trusting relationships with beneficiaries.

Navigators Emphasized the Importance of Tailoring to Individual Beneficiary Needs and Preferences

Key informants at bridge organizations emphasized the importance of navigator flexibility to tailor navigation to individual beneficiaries' needs and preferences.

Since the beginning of the model, navigators have triaged navigation based on client needs. In the First Evaluation Report, navigators walked the line between providing high-quality navigation and serving all interested beneficiaries, because there were more beneficiaries than they anticipated. In recent interviews, navigators report that they adjusted their follow-up and screening depending on beneficiary needs and their own workload. Several interviewed navigators discussed using their judgment and experience to determine how quickly to follow up after screening depending on the type of HRSN. If someone was on the verge of becoming homeless, for example, the screener would communicate that with the navigator, who would follow up as soon as possible. Navigators tailored their follow-up to each individual.

In the Second Evaluation Report, many bridge organizations mentioned cross-training screeners to begin navigation during the screening contact. This process aimed to address staff shortages in the wake of the COVID-19 pandemic and increase beneficiary buy-in to navigation. This workflow change was sustained because of its efficiency. This aligns with a practice that many bridge organizations shared: they trained screeners to address beneficiary needs that had a clear-cut solution (for example, by referring someone with a food need to a nearby food bank).

Because of the COVID-19 pandemic, the navigation workflow also shifted to become fully remote. Bridge organizations had mixed emotions on the shift to virtual navigation. Some navigators have returned to in-person navigation, whereas others have continued to navigate virtually. Key informants shared benefits and challenges to both approaches, with the final consensus being that it is best for the navigator to be flexible to address whatever needs the beneficiary expresses.

Capacity-Building Trainings and Hiring Practices Helped Support the Navigation Workforce

Across all years of the model, bridge organizations expressed concerns over the navigation workforce experiencing stress and burnout. Successful strategies to mitigate stress and burnout included building a supportive and experienced team with local resource experts, and sharing beneficiary stories—which motivated navigators by helping them understand the "why" of the AHC Model and its direct impact on beneficiaries.

Findings presented in this report support what was previously described and add detail to a few of the strategies outlined in the Second Evaluation Report. Many bridge organization leaders, navigators, and screeners said that additional training was a factor in navigator success. The types of training included motivational interviewing, mental health, and social determinants of health. Other trainings covered elements of implementation, such as AHC reporting and the elements of the AHC Model, and some bridge organizations trained community health workers.

> "[A CHW certificate program] was the most helpful for me, because it provided training on motivational interviewing and using that, and also in combination with stages of change. So understanding when [we or our other navigators/screeners] meet with a patient, talking to them, and figuring out what stage of change they're at right now, and then how to practice us[ing] motivational interviewing, so that I can get the best screening possible."
>
> — Bridge Organization Screener

Several bridge organization leaders emphasized the importance of staying true to the community health worker model when hiring navigators by ensuring the navigators were from the area they served and shared similar lived experiences to the beneficiaries they would be working with. This carried an additional benefit in that navigators understood the resources that were available in the community where they lived and worked. This approach to hiring was said to support greater community engagement among the navigators, beneficiaries, and their communities.

Conclusions and Lessons Learned

This chapter presents novel findings confirming that the AHC Model successfully supported multiple subpopulations within the broader communities served by the bridge organizations. Black non-Hispanic and Hispanic beneficiaries were more likely to accept navigation than White beneficiaries. This finding aligns with research by De Marchis and colleagues (2020), who found that individuals with non-Hispanic Black ancestry had a higher likelihood of being interested in receiving assistance for their social risk factors. The authors go on to speculate that the more common social care activities become in health care settings, the more likely individuals are to be interested in receiving assistance. Beneficiaries with less than a high school education were more likely to accept navigation than those with at least a high school education. This analysis might support the hypothesis that beneficiaries with higher education may have greater access to resources and may not feel they need navigation services.

There were also variations in navigation acceptance for certain populations by track. Aligning with previous research (De Marchis et al., 2020), beneficiaries with two or more HRSNs were more likely to accept navigation than those with one HRSN. This relationship was strongest in the Alignment Track and thought to be caused by Alignment Track activities such as convening of advisory boards and QI planning. These activities increased navigators' comfort referring beneficiaries and their ability to "sell" navigation. Assistance Track beneficiaries with diabetes were more likely to accept navigation than those without diabetes, potentially because the high burden of managing a chronic disease makes them more likely to accept support for other needs. The relationship between diabetes and navigation acceptance was not significant in the Alignment Track.

Bridge organizations highlighted the intangible value that navigation brings to their clients, which might build trust and inform downstream outcomes such as decreases in ED utilization and health care expenditures. In this way, the AHC Model was effective in transforming and broadening the medical community's view of health care delivery. Trust is vital to the therapeutic alliance formed between a patient and their health care team. In a seminal research study, investigators demonstrated that Black non-Hispanic respondents were less likely to trust the health care system than White non-Hispanic respondents (Boulware et al., 2003). Qualitative data from this evaluation indicate that navigation may create trusting relationships between beneficiaries and navigators. There are multiple examples in this chapter of situations where navigators went above and beyond expectations to support their clients' needs outside the five included in the AHC Model, such as helping them get a driver's license

or building financial literacy. Navigators receive training on motivational interviewing and effective communication and often have lived experiences similar to those of beneficiaries. These elements, unique to the navigation workforce, engender trust with the clients they serve.

Navigators' experiences also shed light on lessons learned from the launch of the AHC Model that could inform other efforts to address HRSNs. Although bridge organizations shared implementation successes such as workflow improvements and strategies to boost the navigation workforce's morale, they also shared persistent challenges without one-size-fits all solutions. One of the greatest challenges faced by model participants is that once someone is screened for HRSNs, beneficiaries need to have available and accessible community resources to address their needs. Not having such resources available causes stress for navigators; in addition, beneficiaries may decline navigation altogether if they do not believe there are resources to support them. Navigators shared strategies they use to mitigate this challenge, such as referring clients to other caseworkers and helping clients identify friends and family who might support them; these may be short-term fixes but not necessarily long-term solutions. The next chapter discusses navigation's effect on connection to CSPs and HRSN resolution.

Exhibit 6-5 highlights key challenges for navigating beneficiaries and promising strategies for addressing them. The exhibit also includes lessons learned related to navigation.

Exhibit 6-5. Challenges and Lessons Learned

Challenges

- Gaining client trust in order for them to accept navigation
- Lack of community resources
- Staying up-to-date on community resources
- Navigator burnout and stress

Promising Strategies

- Being open and honest about limitations when presenting navigation
- Hiring navigators with similar lived experiences to the beneficiaries they serve
- Training navigators on motivational interviewing and effective communication strategies
- Developing community relationships outside the AHC Model
- Coordinating with other caseworkers in a mutually reinforcing way
- Using multiple strategies to stay updated, including internal bridge organization communication and external networks
- Enhancing/developing strategies to support and motivate the navigation workforce, such as building a supportive and experienced team and sharing success stories

Lessons Learned

- Trust between the navigator and beneficiary is foundational and requires targeted actions to build.
- There is no "best" way to implement the AHC Model. Bridge organizations must be flexible in outreach to, connection with, and assistance for beneficiaries to address HRSNs.
- Systemic gaps in resources limit capacity to address HRSNs.
- Multiple supports can be combined in ways that are mutually reinforcing.
- HRSN navigation can fit with the existing ecosystem of support in ways that are acceptable and helpful to the beneficiary.
- A focus on hiring and providing capacity building trainings supports navigator success.

Chapter 7: Connection to CSPs and HRSN Resolution

A primary objective of the Accountable Health Communities (AHC) Model was to help eligible beneficiaries connect with community service providers (CSPs) to resolve their health-related social needs (HRSNs). Beneficiaries in the Assistance Track intervention group and the Alignment Track received navigation to help them connect with CSPs. Beneficiaries in the Assistance Track control group did not receive navigation; instead, they were offered a list of CSPs that could help address their HRSNs.

Key Takeaways

- Navigation did not change beneficiaries' use of community services or challenges connecting to CSPs, relative to providing a list of resources.
- About 40% of beneficiaries who received navigation had one or more HRSNs resolved; 28% had all their HRSNs resolved.

(continued)

The Second Evaluation Report explored the effectiveness of navigation, including leveraging community resources to address beneficiaries' HRSNs, rates of HRSN resolution, connection to CSPs, beneficiary perceptions of community services, and challenges to and facilitators of HRSN resolution. While the AHC Model was still being implemented, that report included preliminary findings indicating roughly half of beneficiaries surveyed reported

they used community services, regardless of whether they received navigation. Additionally, more than one-third of beneficiaries with data recorded by a navigator had at least one HRSN resolved.

In this chapter, we build on findings in the Second Evaluation Report through additional analyses related to beneficiary use of community services, HRSN resolution, and the characteristics of beneficiaries and bridge organizations associated with connection to CSPs and HRSN resolution.

This chapter addresses Research Objectives 1 and 2, which seek to understand the context of the AHC Model and approaches to implementation, respectively. Specifically, this chapter explores connection to CSPs and HRSN resolution related to five research questions:

Key Research Questions

How did bridge organizations launch AHC interventions?

- How engaged were clinical delivery sites (CDSs), CSPs, and other key stakeholders in launching the AHC Model?
- What kinds of unanticipated challenges arose during model launch?
  - How did implementation efforts differ between sites that effectively implemented the Model and those that struggled?
- Did model impact findings differ by subpopulations (e.g., clinical characteristics, health insurance, social needs, sociodemographic characteristics), or contextual, organizational, or other key factors?
- What were the key implementation drivers of model impact findings?
- How did variations in model implementation across bridge organizations and CDSs affect model impact findings?

Key Takeaways (continued)

- Beneficiaries who were Black non-Hispanic or Hispanic were more likely than others to have documented resolution of their HRSNs, indicating that the AHC Model was successful at addressing HRSN among historically marginalized populations.
- Three groups of beneficiaries were more likely than others to have documented resolution of their HRSNs, potentially due to social services program eligibility requirements: 1) beneficiaries who had Medicaid coverage or were dually eligible for Medicare and Medicaid; 2) beneficiaries who were younger than 18; and 3) beneficiaries who were older than 65.
- Lack of transportation is a barrier that impeded some beneficiaries' access to CSPs and thus resolution of HRSNs.
- Some beneficiaries experience persistent or new HRSNs over time despite receiving navigation.

This chapter presents findings from quantitative and qualitative data to address these research questions. Quantitative findings are based on three data sources:

1. AHC screening and navigation data (May 2018–April 2023)
2. Results from a survey of CSPs (January–May 2020, January–March 2021)
3. Results from a follow-up survey of beneficiaries eligible to receive referral and navigation under the AHC Model, administered roughly 6 months after their initial screening (January 2020–January 2022)

Qualitative findings are based on semi-structured interviews with three groups of AHC stakeholders:

1. Bridge organizations active at the time of data collection (January–April 2022)
2. CSPs providing services to beneficiaries served by the AHC Model (January–April 2020, September–November 2021)
3. Beneficiaries served by the AHC Model (July–September 2020, February–April 2022)

See **Appendixes B, F, K, L,** and **O** for additional details on the methods for the analysis reported here.

Beneficiaries' Use of Community Services Was the Same Regardless of Whether or Not They Were Offered Navigation

We expected that navigation would increase use of community services for beneficiaries in the Assistance Track intervention group, relative to beneficiaries in the Assistance Track control group, who received only a list of CSPs. Similarly, we expected that navigation would increase use of community services for the Alignment Track relative to a weighted Assistance Track control group, which served as the comparison group for the Alignment Track. [14] However, beneficiary survey respondents in all groups reported similar rates of community services use in the 6 months after their AHC screenings (**Exhibit 7-1**); there were no significant differences in use of community services between the intervention and control/comparison groups of both tracks.

For all four groups—the Assistance Track intervention group, Assistance Track control group, Alignment Track intervention group, and weighted Alignment Track comparison group—roughly 50% to 55% of beneficiaries reported using community services to address any of their HRSNs. Approximately 40% to 45% used community services for their food need, and 20% to 30% used community services for their housing, utility, or transportation needs.

Beneficiary Survey Question About Use of Community Services

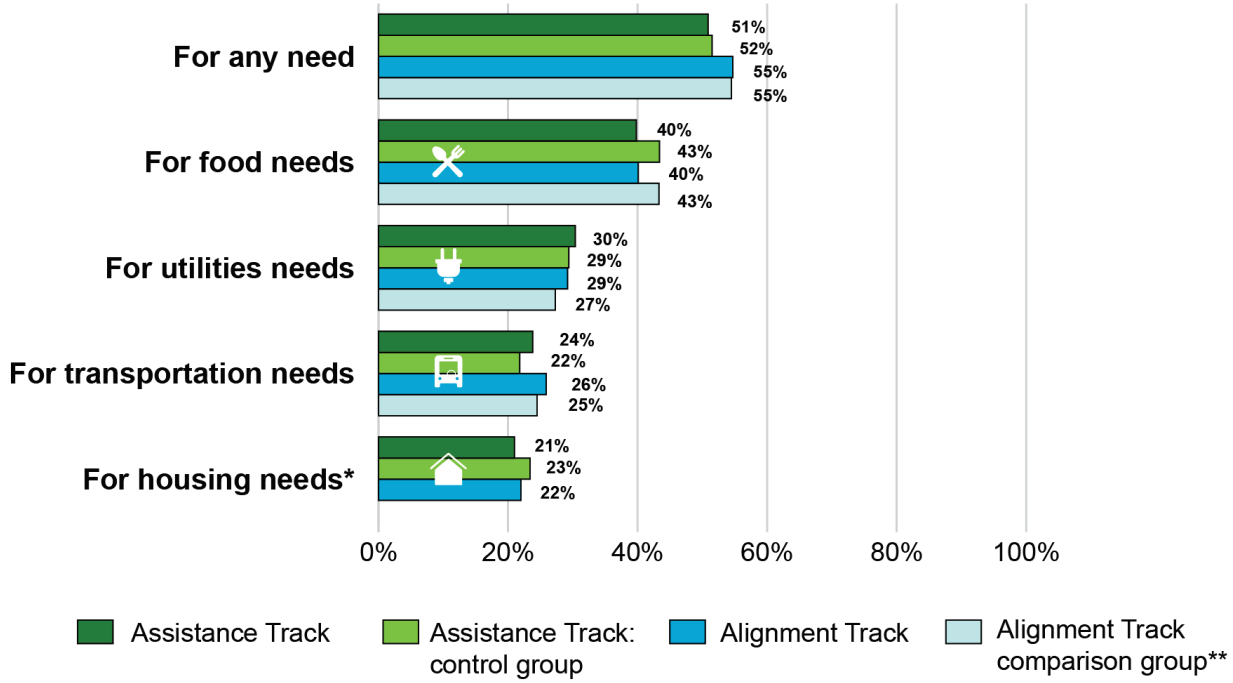
Community organizations help people with free or low-cost public services. Community organizations could be housing shelters, soup kitchens. or other organizations. Which of these community or public services did you use in the past six months? *Please choose all that apply.*

- ☐ Help finding or keeping a steady place to live.
- ☐ Help with your utilities (electricity, gas, oil or water).
- ☐ Help getting enough food for you and your family to eat.
- ☐ Help with reliable transportation to places you need to go.
- ☐ None

[14] We used propensity score weighting to compare the use of community services among beneficiaries from the Alignment Track and Assistance Track control group (see **Appendix C** for methodology). This method was necessary because the Alignment Track did not have a corresponding control group, and beneficiaries across the two tracks were too dissimilar to make a direct comparison.

Exhibit 7-1. Survey Respondents' Use of Community Services After Screening

Use of services was similar between respondents who received navigation and those who received a list of CSPs.



*For use of community services for housing needs, we excluded the bar for the propensity-weighted Assistance Track control group, because a lack of balance in the case-mix covariates with the Alignment Track respondents made comparing the intervention and control groups for this measure infeasible.

**Propensity-weighted Assistance Track control group

Sample Size: N=6,817 Assistance Track intervention group beneficiaries; N=2,781 Assistance Track control group beneficiaries; N=4,677 Alignment Track beneficiaries
Source: AHC Beneficiary Survey
Methods: Includes beneficiaries screened from April 2019–March 2021, who were surveyed roughly 6 months after their initial screening. Estimates for the Assistance Track were weighted to adjust for survey nonresponse and regression-adjusted to control for any potential differences between the intervention and control groups remaining after randomization. Estimates for the Alignment Track were compared to the propensity-weighted Assistance Track control group (see **Appendix C** for full methodology). The analyses for each HRSN included only beneficiaries who reported each need in their screening (housing, utilities, food, or transportation, respectively).
Time Frame: January 2020–January 2022.
Definitions: CSP = community service provider; HRSN = health-related social need

Not all beneficiaries who were offered navigation under the AHC Model accepted it. For those that did, we found no significant differences in resolution of HRSNs between Assistance Track intervention group beneficiaries and statistically balanced Assistance Track control group beneficiaries. See the **Appendix C: Beneficiary Survey Methods** section for additional detail on our analytic methodology for this analysis.

Even with Navigation, Beneficiaries Reported Challenges Connecting with CSPs and Receiving Services That Address HRSNs

Navigators can make referrals or broker relationships with CSPs that may increase the likelihood that beneficiaries find and receive needed services to address HRSNs. Interviews with beneficiaries and bridge organization staff revealed that although beneficiaries found navigation helpful, some faced challenges resolving HRSNs despite

navigation assistance. Beneficiaries continued to face the challenges reported in the Second Evaluation Report—lack of transportation, ineligibility for services, and lack of community resources. In addition, beneficiaries and bridge organization staff described challenges such as complex eligibility determinations, waitlists for limited resources, language barriers, and mobility limitations impeding access to CSPs.

Beneficiaries Appreciated the Support They Received from AHC Navigators and Other Case Workers

Most beneficiaries we interviewed recalled receiving support from an AHC navigator or another case worker or clinical support worker. Several beneficiaries reported working with multiple caseworkers or counselors, and beneficiaries could not always distinguish the AHC navigator from other sources of professional support. Many beneficiaries described having contact with a navigator or case worker through multiple modes (for example, one or more phone calls followed by information transmitted by text message or email) and found this to be helpful. In addition, many beneficiaries remembered receiving written resources from navigators. Beneficiaries often described these resources as helpful.

> "Yeah, they actually sent me some emails making sure that I was taken care of. They followed up. They gave me a call after that, maybe about a couple of weeks after, and gave me places where I could get food if I needed to, different things that I could do like SNAP and stuff like that. And they definitely did help."
>
> — Beneficiary

> "I forgot who the man is. But he still called me and asked me, am I okay with the services? Do I need anything else? Can he assist me with anything else? So, they're on top of it. As far as I'm concerned and my experience, it's been good for me. And it's been really helpful because I didn't have the right services."
>
> — Beneficiary

Beneficiaries and Bridge Organizations Described Challenges Connecting to CSPs

Both beneficiaries and bridge organization interviewees described challenges in making connections with CSPs that were able to address beneficiaries' HRSNs. (As noted in **Chapter 6:** Navigation, these challenges were somewhat mitigated by advisory board interactions in the Alignment Track.) Many beneficiaries said that there were not enough resources in the community and reported long housing waitlists, in particular. Several beneficiaries reported attempting to receive services to address HRSNs only to discover they were ineligible because of factors such as age, income, or prior criminal justice system involvement. Many beneficiaries described application-related barriers to receiving services to address HRSNs, such as confusing applications or requirements for doctor's notes. Finally, several beneficiaries described challenges related to mobility or disability issues that impeded their ability to receive services to address HRSNs.

> In response to a question about assistance paying for utilities:
>
> "The lady told me that I don't qualify because I have income coming in, but she can only help, like, the people that don't have income and stuff like that. But I also have a shut-off notice on that."
>
> — Beneficiary

Bridge organization staff described similar challenges, noting limited availability of some resources (e.g., waitlists and eligibility restrictions such as age and income requirements for some housing developments). Representatives of bridge organizations also shared frustration with long application processing times and referral chains, in which a CSP may refer a beneficiary to another organization rather than being able to assist directly. Bridge organization interviewees also

> In response to a question about communication with CSPs:
>
> "I [a Spanish speaking individual] emailed them and called them. They said they would send me the information that I needed to apply. And I don't think we were able to communicate well because then they didn't send me anything, and I gave up. I said no."
>
> — Beneficiary

noted language barriers and low-quality food and housing options as challenges to resolving beneficiaries' HRSNs.

Notably, bridge organizations recognized lack of transportation as a barrier to resolving other HRSNs. (See also the section, *Some Bridge Organization and Community Characteristics Are Associated with Helping Beneficiaries Connect with CSPs and Resolve HRSNs*, later in this chapter.) Often, transportation assistance could be arranged for medical appointments, but no options existed for transportation to assist with food, housing, or utility-related needs. In some cases, bridge organizations relayed that beneficiaries felt unsafe using some modes of transportation (e.g., mistrust in driver safety, bus routes through unsafe neighborhoods, unsafe pickup and drop-off points where beneficiaries must meet drivers).

> In response to a question about whether CSPs could have provided additional assistance:
>
> "They could've taken me by the hand, so to speak, and said, 'Do this, this, this, and this. We'll help you.' Because of my strokes, I have had parts of my brain that doesn't spin all the way around and help me, so I do need assistance."
>
> — Beneficiary

Among Navigated Beneficiaries, 40% Had at Least One HRSN Resolved

Navigators offered individualized help to beneficiaries in the Assistance Track intervention group and the Alignment Track to make connections to CSPs to resolve their identified HRSNs. Beneficiaries who accepted navigation were asked to report to the navigator whether and when they connected to a CSP and had their need resolved. Navigators recorded the disposition of each beneficiary's case. Because beneficiaries in the Assistance Track control group were not offered navigation, follow-up data on whether their needs were resolved after screening were not collected by bridge organizations.

Of the navigation-eligible beneficiaries who accepted navigation services, most (98%) received navigation. **Exhibit 7-2** provides the case status and navigation outcomes among the Assistance Track intervention group and Alignment Track beneficiaries who received up to 12 months of navigation services. As shown in the right bar, 40% of those navigated had at least one HRSN documented as resolved, including 28% who had all their needs resolved. This is slightly more than the 36% with documented HRSN resolution reported in the Second Evaluation Report, showing that rates of resolution increased over time. As noted in **Chapter 2** of the present report, nearly 60% of navigation-eligible beneficiaries had more than one HRSN. Among those with two or more HRSNs, 41% had at least one HRSN resolved, and 20% had all their HRSNs resolved (data not shown in exhibit). Among those who received navigation, 11% were connected to a CSP for at least one HRSN but had no HRSNs resolved.

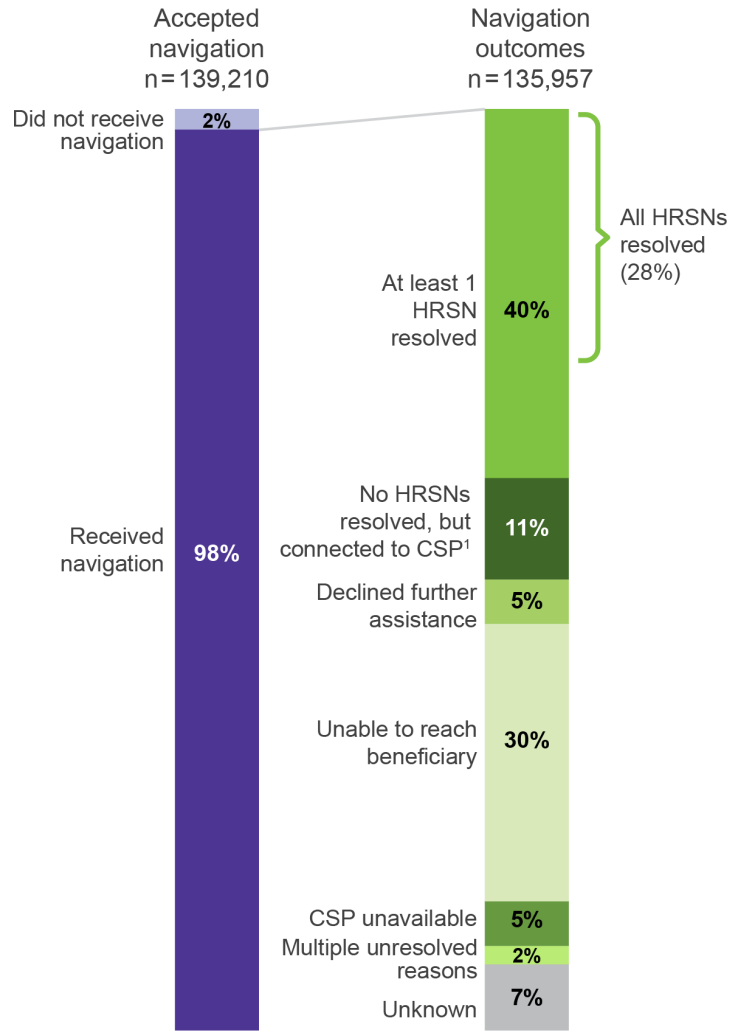
About one-half of navigated beneficiaries (49%) had no HRSNs resolved and were not connected to a CSP for any HRSNs. Specifically, 5% opted out of navigation for all their HRSNs after having initially accepted navigation. For 5%, a navigator was unable to identify a CSP available to address the beneficiary's HRSNs during the navigation period; 30% were unable to be reached after three navigator attempts, which were required before a case could be closed. All closed navigation cases should have been recorded as resolved or unresolved. However, 7% listed the outcome as "in progress" (i.e., unknown), indicative of a data quality issue. The Innovation Center worked with bridge organizations to address this issue, and the percentage of unknown disposition decreased from 31% to 7% over time.

There were some differences between the two tracks (not shown). All beneficiaries in the Alignment Track received navigation; 93% of those in the Assistance Track intervention group received navigation. Those in the Assistance Track intervention group were slightly more likely to have at least one HRSN resolved (42%) than those in the Alignment Track (39%). Those in the Alignment Track were slightly more likely to be connected to a CSP for at least one HRSN but have no HRSNs resolved than those in the Assistance Track intervention group (12% vs. 9%). As noted in **Chapter 6:** Navigation, bridge organization respondents from the Alignment Track indicated that the

discussions and engagements with the advisory board enabled them to get to know the service providers. This knowledge led navigators to feel more confident in their knowledge of the organizations they were referring people to, which may have led to greater connections between beneficiaries and CSPs. Among those in the Alignment Track, 6% opted out of navigation for all their HRSNs after having initially accepted navigation; for 4%, a navigator was unable to identify a CSP available to address the beneficiary's HRSNs during the navigation period; and 31% were unable to be reached after three navigator attempts. Among those in the Assistance Track intervention group, 3% opted out of navigation for all their HRSNs after having initially accepted navigation; for 7%, a navigator was unable to identify a CSP available to address the beneficiary's HRSNs during the navigation period; and 28% were unable to be reached after three navigator attempts.

Exhibit 7-2. Navigation Outcomes Among Beneficiaries Who Accepted Navigation

More than one-half of navigated beneficiaries were connected to a CSP for at least one HRSN or had at least one HRSN resolved.



Source: AHC screening, referral, and navigation data
Time Frame: May 2018–April 2023
[1] Connected to CSP for at least 1 HRSN.
Definitions: CSP = community service provider; HRSN = health-related social need

AHC Model navigators followed beneficiaries who accepted navigation for up to 12 months. Navigators lost touch with about 30% of beneficiaries during this time, similar to the 29% reported in the Second Evaluation Report. Of this 30%, 43% were documented as never reached by a navigator. The remaining 57% were documented as having an action plan completed, which is the first step of navigation, but were lost before resolution of need could be documented. It is important to note that documentation of a completed action plan was not always required of navigators, so 57% may be an underestimate. The proportion of beneficiaries lost to follow-up did not change appreciably during the AHC Model intervention, remaining stable even throughout the COVID-19 public health emergency. Beneficiaries lost to follow-up did not differ substantively from those not lost to follow-up by payer type, age, race/ethnicity, education, sex, or types of HRSNs (see **Appendix B, Exhibit B-12,** for detailed results). Percentages of those lost to follow-up by bridge organization varied from 0% to 53%, with slightly more lost to follow-up for the Alignment Track (31%) than for the Assistance Track intervention group (28%).

Certain Beneficiary Characteristics Were Associated with HRSN Resolution for Beneficiaries Who Received Navigation

In the Second Evaluation Report, we reported that some subgroups of beneficiaries who responded to our survey had higher rates of HRSN resolution than other beneficiaries. For example, Black beneficiaries in the Assistance Track intervention group, who received navigation, were more likely to report on surveys that they resolved a food need than those in the control group, who received only a list of CSPs.

Here, we used the larger set of AHC screening and navigation data, in conjunction with Medicare and Medicaid claims data, to examine whether any beneficiary, bridge organization, and community characteristics were associated with (1) resolution of one or more navigated needs and (2) resolution of all navigated needs among AHC navigation-eligible beneficiaries.[15] In **Chapter 6:** Navigation, we found that payer type (Medicaid), race and ethnicity (non-White), some chronic conditions (e.g., diabetes), and two or more HRSNs were associated with greater navigation acceptance. To see if any of these same characteristics were related to navigation outcomes, we ran three regressions for each outcome measure: one for each track and an overall model that combined navigation-eligible beneficiaries in both tracks. Selected beneficiary characteristics for the combined tracks regressions are summarized in **Exhibit 7-3** and described below. (See **Appendix B** for regression methodology details, **Appendix B, Exhibit B-14** for descriptive statistics on the navigation-eligible beneficiaries included in the analyses, **Appendix B, Exhibit B-15a** for full regression results, and **Appendix B, Exhibits B-15b** and **B15c,** for results for Alignment Track and Assistance Track, respectively.)

Exhibit 7-3. Resolution of HRSNs for Subgroups Who Received Navigation

Beneficiary characteristics were associated with resolution of needs among navigated beneficiaries.

Characteristics	Expected Direction of Impact	Resolution of 1 or More HRSNs	Resolution of All HRSNs
Age 18–64*	⌄⌄	↓	↓
Age 65+*	⌃⌃	NS	↑
Black, non-Hispanic†	⌃⌄	↑	NS
Hispanic†	⌃⌄	↑	↑

[15] Throughout this section, the estimated impacts on likelihood represent a difference in odds rather than a difference in probability.

Characteristics	Expected Direction of Impact	Resolution of 1 or More HRSNs	Resolution of All HRSNs
Other race†	◇	NS	NS
Male	⌄⌄	↓	↓
Medicaid‡	◇	↑	↑
Dually eligible‡	◇	↑	↑
Substance use disorder	⌄⌄	↓	↓
Depressive disorder	⌄⌄	↓	↓
Number of navigated needs > 2	◇	↑	↓
Navigated transportation need	⌄⌄	NS	↓

Legend: ⌄⌄ Lower ⌃⌃ Higher ◇ Could be lower or higher

⌄⌄ Expected beneficiaries with the characteristic to be less likely to have their HRSNs resolved compared to the reference group

⌃⌃ Expected beneficiaries with the characteristic to be less likely to have their HRSNs resolved compared to the reference group.

◇ Expected no difference in having their HRSNs resolved compared to the reference group.

↑ Beneficiaries with the characteristic were significantly more likely to have their HRSNs resolved compared to the reference group.

↓ Beneficiaries with the characteristics were significantly less likely to have their HRSNs resolved compared to the reference group.

NS Beneficiaries with the characteristic had no significant difference in having their HRSNs resolved compared to the reference group.

Source: AHC screening, referral, and navigation data
Methods: Logistic mixed effects regressions
Time Frame: May 2018–April 2023
* P-values were calculated using less than 18 as the reference group.
† P-values were calculated using White as the reference group.
‡ P-values were calculated using Medicare as the reference group.
Definitions: HRSN = health-related social need
Other notes: Other race includes American Indian/Alaska Native, Asian, Hawaiian or Other Pacific Islander, and those who identify as multiple races.

Those 18 to 64 years of age and male beneficiaries were less likely to have their HRSNs resolved than female and younger beneficiaries. Beneficiaries 18 to 64 years of age were 12% ($p < 0.01$) and 11% ($p < 0.01$) less likely to have at least one HRSN and *all* HRSNs resolved, respectively, compared with beneficiaries younger than 18 years of age. Conversely, beneficiaries 65 years of age or older were 7% more likely ($p < 0.10$) to have *all* their HRSNs resolved compared with beneficiaries younger than 18 years of age. These results may reflect the variation in services available and accessible to children, adults, and seniors. For instance, older adults may qualify for certain affordable housing units (for example, HUD Section 202) to address housing needs and for subsidized transit passes[16] to address transportation needs. Children can qualify for school lunch programs to address food needs.

[16] Under 49 U.S.C. Section 5307(d)(1)(D) of the Federal Transit Act, federally subsidized transit providers may not charge more than half of the peak fare for fixed route transit during off-peak hours for seniors, people with disabilities, and Medicare cardholders.

Additionally, males may be less likely to attend to their health and related needs than females[17], so we expected male beneficiaries to be less likely to have HRSNs resolved than female beneficiaries. Consistent with that expectation, male beneficiaries were 10% less likely to have at least one HRSN resolved than female beneficiaries ($p < 0.01$) and 9% less likely to have *all* their HRSNs resolved ($p < 0.01$). This result could indicate that the navigation intervention is less successful at engaging male beneficiaries or that fewer services to address HRSNs are available to male beneficiaries.

Black non-Hispanic and Hispanic beneficiaries were more likely to have their HRSNs resolved than White beneficiaries. As discussed in **Chapter 6:** Navigation, among all beneficiaries offered navigation, Black non-Hispanic and Hispanic beneficiaries were more likely to accept navigation than White beneficiaries. Of beneficiaries who accepted navigation, relative to White beneficiaries, Black non-Hispanic beneficiaries were 4% more likely to have at least one HRSN resolved ($p < 0.05$), and Hispanic beneficiaries were 11% more likely to have at least one HRSN resolved ($p < 0.01$). Hispanic beneficiaries also were 7% more likely than White beneficiaries to have *all* their HRSNs resolved ($p < 0.01$). This analysis further supports the finding that the AHC Model was successful at addressing HRSNs among historically marginalized populations within the communities served by bridge organizations.

Medicaid and Medicare-Medicaid dually eligible beneficiaries were more likely to have their HRSNs resolved than Medicare-only beneficiaries. Compared with Medicare-only beneficiaries, Medicaid and Medicare-Medicaid dually eligible beneficiaries were 10% ($p < 0.01$) and 12% ($p < 0.01$) more likely, respectively, to have at least one HRSN resolved. Medicaid beneficiaries were also 10% ($p < 0.05$) more likely to have *all* their HRSNs resolved than Medicare-only beneficiaries. This could be explained by some CSPs' income eligibility limits that prohibit beneficiaries with higher incomes from enrolling in Medicaid. However, we found no significant differences in HRSN resolution by payer type in the Assistance Track intervention group.

Beneficiaries with substance use disorder or depressive disorder were less likely to have their HRSNs resolved than those without these conditions. Beneficiaries with substance use disorder or depressive disorder may face challenges qualifying for and accessing services to resolve their needs. For instance, some affordable housing units may require beneficiaries to abstain from drug or alcohol use, making it more difficult for those with substance use disorder to find steady housing. Beneficiaries with depression may struggle with day-to-day activities and therefore, may be less likely to reach out to a CSP. Thus, we hypothesized that beneficiaries with substance use disorder or depressive disorder would be less likely to have their HRSNs resolved than those without those disorders. As predicted, beneficiaries with substance use disorder were 20% ($p < 0.01$) and 18% ($p < 0.01$) less likely to have at least one need resolved and all needs resolved, respectively, compared with beneficiaries without substance use disorder. Similarly, beneficiaries with depressive disorder were 4% ($p < 0.05$) and 5% ($p < 0.01$) less likely to have at least one need resolved and all needs resolved, respectively.

Beneficiaries with more than two HRSNs were more likely to have at least one HRSN resolved, but less likely to have all their HRSNs resolved, than beneficiaries with only one HRSN. As noted in previous chapters, beneficiaries with multiple HRSNs have the greatest potential to benefit from effective navigation. However, as beneficiaries have a greater number of needs, the complexity of their situation makes it less likely that all their needs will be resolved. Compared with beneficiaries with only one HRSN, beneficiaries with two or more HRSNs were 35% more likely ($p < 0.001$) to have at least one HRSN resolved, but 45% less likely ($p < 0.01$) to have all HRSNs resolved. Those with a transportation need were 13% less likely ($p < 0.01$) to have all HRSNs resolved. As noted in the Second Evaluation Report, lack of transportation hinders access to other social services. Without sufficient transportation,

[17] Centers for Disease Control and Prevention. Utilization of Ambulatory Medicare Care by Women: United States, 1997-98. Vital Health and Statistics. Hyattsville, MD. July 2001. https://www.cdc.gov/nchs/data/series/sr_13/sr13_149.pdf Retrieved April 11, 2024.

a beneficiary may not be able to access services, such as getting to housing intake appointments or accessing food pantries.

AHC Model Navigation Did Not Increase Resolution Compared with Providing a List of CSPs

All beneficiaries in the Alignment Track and Assistance Track intervention group received navigation, whereas beneficiaries in the Assistance Track control group received a list of CSPs but not navigation.[18] We anticipated that navigation would lead to more HRSN resolution than a tailored resource list. However, in response to a survey sent approximately 6 months after screening, beneficiaries reported similar rates of HRSN resolution regardless of whether they had received navigation or only a list of CSPs. Results for the Assistance Track beneficiaries were previously reported in the Second Evaluation Report. This report adds propensity score-weighted analyses of outcomes for the Alignment Track beneficiaries. Results are shown in **Exhibit 7-4**.

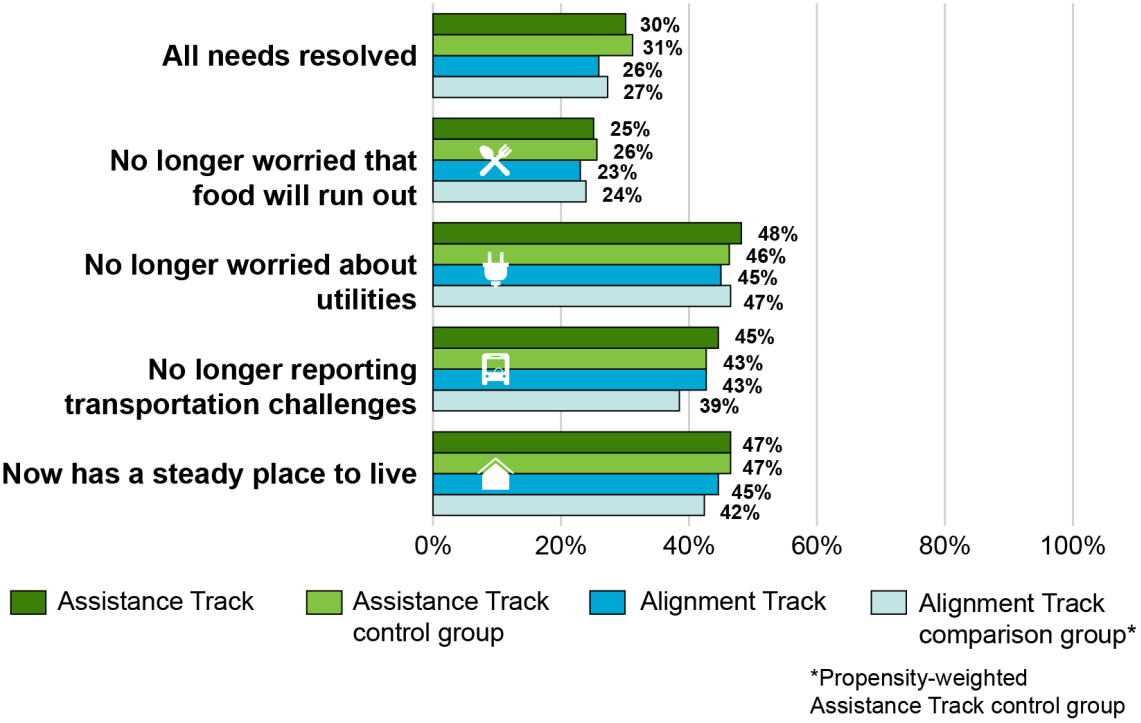
We found similar rates of need resolution for the Alignment Track and the propensity-weighted Assistance Track control group. Differences between the intervention groups and their respective comparison or control groups were not statistically significant.

Only 26% and 30% of beneficiaries in the Alignment Track and Assistance Track intervention group, respectively, resolved all of their reported HRSNs from the initial screening, as did 27% in the Alignment Track comparison group and 30% in the Assistance Track control group. In all four groups, roughly a quarter of beneficiaries resolved their food needs. Around 45% of beneficiaries in the Assistance Track intervention group and the Alignment Track resolved a utility, housing, or transportation need.

[18] We used propensity score weighting to compare the use of community services among beneficiaries from the Alignment Track and Assistance Track control group (see **Appendix C** for methodology). This method was necessary because the Alignment Track did not have a corresponding control group, and beneficiaries across the two tracks were too dissimilar to make a direct comparison.

Exhibit 7-4. HRSN Resolution Among Assistance Track and Alignment Track Beneficiaries

HRSN resolution was similar between the intervention and control/comparison groups.



Sample Size: N=6,817 Assistance Track intervention group beneficiaries; N=2,781 Assistance Track control group beneficiaries; N=4,677 Alignment Track beneficiaries.
Source: AHC Beneficiary Survey
Methods: Includes beneficiaries screened from April 2019 through March 2021, who were surveyed roughly 6 months after their initial screening. Estimates for the Assistance Track were weighted to adjust for survey nonresponse and regression-adjusted to control for any potential differences between the intervention and control groups remaining after randomization. Estimates for the Alignment Track were compared to the propensity-weighted Assistance Track control group (see **Appendix C** for full methodology). The analyses for each HRSN included only beneficiaries who reported each need in their screening (housing, utilities, food, or transportation, respectively).
Time Frame: January 2020–January 2022
Definitions: HRSN = health-related social need

We also conducted an analysis to assess HRSN resolution among beneficiaries who accepted navigation. We found that Assistance Track intervention group beneficiaries were still no more likely to report using community services than Assistance Track control group beneficiaries, who were offered only a community referral summary (CRS). See **Appendix C: Beneficiary Survey Methods** for additional detail.

Some Bridge Organization and Community Characteristics Are Associated with Helping Beneficiaries Connect with CSPs and Resolve HRSNs

We used qualitative comparative analysis (QCA) to examine combinations of bridge organization and community characteristics that contributed to higher levels of connection to CSPs or the resolution of HRSNs. We refer to these combinations as "pathways," because there are multiple ways that bridge organizations and their partners achieved higher levels of connection to CSPs or the resolution of HRSNs, and these may serve as roadmaps for

other organizations seeking to implement AHC-like interventions. A detailed description of QCA, the methods used to develop and validate the CSP connection/HRSN resolution QCA model, and the analysis appear in **Appendix J.**

Overview of CSP Connection/HRSN Resolution Analysis

The evaluation team reviewed previous evaluation report findings and the AHC Model theory of change to identify bridge organization and community characteristics ("conditions") that we hypothesized may affect CSP connection/HRSN resolution—either because of their presence or absence. We then used QCA to identify how these conditions, in isolation, or combination, related to higher levels of CSP connection or HRSN resolution. We used a continuous outcome measure that defines high levels of CSP connection or HRSN resolution as greater than 63% of beneficiaries with a closed navigation case connected to a CSP for at least one HRSN or had at least one HRSN resolved (with or without a CSP's assistance).[19] Lower levels of CSP connection and HRSN resolution ranged between 24% and 50%, and moderate levels ranged between 51% and 62%. **Exhibit 7-5** provides the definition and data sources for the outcome and each condition included in the QCA.

Exhibit 7-5. Definitions and Data Sources for the Outcome and Conditions Examined in CSP Connection/HRSN Resolution Model

We used varied conditions including bridge organization and community characteristics.

Condition	Definition	Data Source(s)
Outcome: High Levels of CSP Connection/HRSN Resolution	Percentage of beneficiaries within a bridge organization with a closed navigation case who were connected to a CSP for at least one HRSN or had at least one HRSN resolved (with or without a CSP's assistance)	AHC screening and navigation data
Alignment Track	Whether a bridge organization was in the Alignment Track	AHC screening and navigation data
High Completed Navigation[20]	Percentage of navigation-eligible beneficiaries within a bridge organization with one or more HRSN(s) who accepted navigation and completed at least 12 months of navigation	AHC screening and navigation data
Low Housing Need	Percentage of navigation-eligible beneficiaries within a bridge organization with a housing need who accepted navigation and received up to 12 months of navigation	AHC screening and navigation data
Low Transportation Need	Percentage of navigation-eligible beneficiaries within a bridge organization with a transportation need who accepted navigation and received up to 12 months of navigation	AHC screening and navigation data
Strong CSP Relationships	The history of CSPs in working with bridge organizations over the past 12 months	CSP Survey
High Community Resource Availability vs. Need	A community-specific measure of resource availability related to need. Measured via a four-point continuum ranging from "low availability, high need" to "high availability, low need"	2017 North American Industry Classification System, 2015 county-level data

Definitions: CSP = community service provider; HRSN = health-related social need

[19] The values for the CSP connection/HRSN resolution outcome and the six conditions were determined using the QCA calibration process. Calibration involves the process of converting case data into numeric set membership values that represent the degree to which a case belongs to a set (i.e., a group of cases that share a similar characteristic), ranging from "fully out" to "fully in" a given set. Please refer to Appendix J: Qualitative Comparative Analysis (QCA) *Methods* for a detailed description of the processes used to determine and validate the calibration values included in the QCA model.

[20] 90% of navigated beneficiaries were navigated for 12 months; 92% were navigated for 11 to 12 months.

Pathways for High Levels of CSP Connection/HRSN Resolution

Among the 28 bridge organizations, six had high levels of CSP connection or HRSN resolution. The remaining 22 had low to moderate levels of connection or resolution. We did not identify a single characteristic or set of characteristics that needed to be in place for bridge organizations to have high levels of CSP connection or HRSN resolution. However, we did identify four combinations of conditions ("pathways") commonly associated with high levels of CSP connection or HRSN resolution. **Exhibit 7-6** displays these pathways. Although these four pathways cover a small number of bridge organizations, there is a high degree of confidence[21] that these pathways achieve CSP connection or HRSN resolutions at very high rates.

[21] Please refer to *Appendix J: Qualitative Comparative Analysis (QCA) Methods* for additional detail on the development and validation of the QCA models, including methods for assessing the strength of the pathway relationships with the outcome (that is, consistency) and the relevance of the pathway relationships and the outcome (that is, coverage).

Exhibit 7-6. Four Pathways of Conditions Commonly Associated with High Levels of CSP Connection/HRSN Resolution

Four pathways of conditions were commonly associated with achieving high levels of CSP connection or HRSN resolution.

Pathways for High Levels of CSP Connection/HRSN Resolution						
		Conditions				
Pathways	Low Transportation Need	Alignment Track	High Completed Navigation	Low Housing Need	Strong CSP Relationships	High Community Resource Availability vs. Need
1	✓	✓	✓	✗	✗	N/A
2	✓	✓	✓	N/A	✗	✗
3	✓	✗	N/A	✗	✓	✓
4	✓	✓	✗	✓	✓	✓

Green checkmarks [✓] indicate the presence of a condition, and red *x* marks [✗] indicate its absence from a given pathway. N/A indicates that the condition was not associated with a given pathway.
Definitions: CSP = community service provider; HRSN = health-related social need
Please refer to *Appendix J: Qualitative Comparative Analysis (QCA) Methods* for additional detail on the development and validation of the QCA models, including methods for assessing the strength of the pathway relationships with the outcome (i.e., consistency) and the relevance of the pathway relationships and the outcome (i.e., coverage).

Pathway #1:

The first pathway accounted for two of the six bridge organizations that achieved high levels of CSP connection or HRSN resolution. One bridge organization in pathway 1 serves both urban and rural counties. Bridge organization leaders described how their bridge organization and partners assessed options throughout their community to prevent transportation from being a barrier to accessing social services. The navigators referred beneficiaries to transportation options based on their location, including a county-paid program that offers free transit, a levy-supported campaign for senior transit, and public transportation. Although one navigator described how accessing non-emergency Medicaid transportation was generally "horrible" throughout the state, the bridge organization's navigation team helped beneficiaries within their AHC community manage the complexity. The navigator said, "It's super hard to access the resources, and [that's] why we have [navigators] to help people to know about the resources."

Pathway #2:

The second pathway accounted for two of the six bridge organizations that achieved high levels of CSP connection or HRSN resolution. Navigators' creative thinking can help identify resources to meet beneficiaries' needs even in communities that have relatively limited community services or restrictions on who can use services. One bridge organization with high completed navigation, as outlined in pathway 2, operated in a state with limited resources for several core HRSNs. The navigators reached out to churches, legal aid groups, fire stations, and organizations like Habitat for Humanity to serve as informal referral sources when beneficiaries' needs could not be addressed by formal partners in the bridge's community resource inventory. A navigator explained, "everyone doesn't qualify for the [state] weatherization program. … I've heard stories about people that make $2 over the limit and then they're not [eligible]. And that's when calling the churches comes in handy, because they may be able to help."

Pathway #3:

The third pathway also accounted for two of the six bridge organizations that achieved high levels of CSP connection or HRSN resolution. The importance of strong CSP relationships, a key element of pathway 3, is illustrated by an Assistance Track community where AHC stakeholders created structures to build and sustain strong relationships with CSPs. In one such community, navigators described recurring meetings with a network of partners. During these meetings, AHC stakeholders shared data on how many beneficiaries they had screened and progress in relation to AHC goals. The network of partners increased their meeting frequency during the pandemic.

As one navigator explained, "we still work closely with them, meeting with them. We have meetings outside of the AHC [Model]. … These are groups that we are part of, entities that share resources with our patients. So, either they're in our community resource [inventory] or we have some interaction with them as a network."

Pathway #4:

The fourth pathway accounted for just one bridge organization that achieved high sustainability scores. In this bridge organization, which built an extensive network of CSPs and enjoys relatively high community capacity, efforts to address beneficiaries' HRSNs initially were not always coordinated. Patients could be asked to complete as many as 15 different screening tools across service providers, who collected the information independently and in isolation. The bridge organization and the CSPs are now much more collaborative. Partners have started to use the same screening tools, the CSPs share information about their services and their clients with each other and the bridge organization, and partners use the same technology platforms that enable them to share notes.

The four pathways demonstrate the multiple ways that six bridge organizations and their partners achieved higher levels of connection to CSPs or the resolution of HRSNs. Notably, all four pathways included low transportation need.[22] This underscores that transportation is critical to communities' ability to address beneficiaries' HRSNs. However, as discussed in **Chapter 3:** Community Capacity to Address HRSNs, reliable, affordable transportation is lacking in many AHC communities, particularly in rural areas, and AHC bridge organizations, CSPs, and navigators worked to find creative transportation solutions. CSPs noted that lack of reliable, affordable transportation can preclude beneficiaries from accessing affordable housing, childcare, work, and community activities. One CSP called transportation "the ultimate shared interest," because society bears the costs when people cannot access services they need. Beneficiaries themselves agreed, providing examples of challenges accessing doctor's appointments or getting to work and noting the inadequacy of bus networks.

> "Transportation is huge because if you are transportation-dependent and you don't have access in your community to the type of transportation that you require, then your home can quickly become your institution because you can't get to the vital basic things you need. Groceries, the drugstore, not to mention the things that we all love to do in our communities, go to the movies, go bowling, all of those. Go to the restaurant, those kinds of things."
>
> — CSP

> "I had up to two to three doctor's appointments in one week that I needed to get to, and I didn't have transportation to get to those."
>
> — AHC Model beneficiary

[22] The QCA did not identify transportation as a necessary condition, meaning that whenever high levels of CSP connection or HRSN resolution were present, the transportation condition was not consistently present within all configurations. However, the results suggest that transportation is a condition that routinely contributed to the pathways for achieving high levels of CSP connection or HRSN resolution.

Several Alignment Track bridge organizations described discussions among their advisory boards that led to increased availability of transportation resources. As described in the Second Evaluation Report, one bridge organization completed a gap analysis that informed a regional transportation plan. Other bridge organizations described less-formal examples in which information sharing among board members increased knowledge of transportation options.

> "You got to get on a bus. And if you don't have $4 for a bus. … Buses don't go everywhere. … There's no bus that goes [to my job], so I have to Uber to work every day."
>
> — AHC Model beneficiary

> "So last [advisory board] meeting, we had somebody who was a mobility management specialist, so she was one of five managers in the state of Connecticut for all mobility. So transportation is our biggest need, and she was like, 'Oh my gosh, give my card to anybody. I'll help them. I have so many resources I could do.' So that was amazing 'cause we thought we were very limited but turns out once we'd dig deeper, we had so many resources that we honestly don't even know about."
>
> — Bridge Organization

HRSNs May Persist or Arise for Some Beneficiaries

We analyzed reported HRSNs through both AHC screening and navigation data (which included all navigation-eligible beneficiaries) and the beneficiary survey (which included a subset of beneficiaries who received either navigation or a list of CSPs). Some beneficiaries reported HRSNs during the navigation period that they did not report at initial screening. Although the AHC Model led to successful resolution of HRSNs for some beneficiaries, data also show that some beneficiaries' identified needs persisted, and sometimes, new HRSNs emerged after their initial screening.

The vast majority of beneficiaries who received navigation had only one navigation case[23] (97%). Among beneficiaries with one navigation case in which the HRSN was resolved, between 8% (among beneficiaries with transportation, utility, or safety needs) and 12% (among beneficiaries with a food need) had that need again in a subsequent screening. Among beneficiaries with two navigation cases, between 2% (among beneficiaries with a safety need) and 52% (among beneficiaries with a food need) were navigated for the same need in both cases.

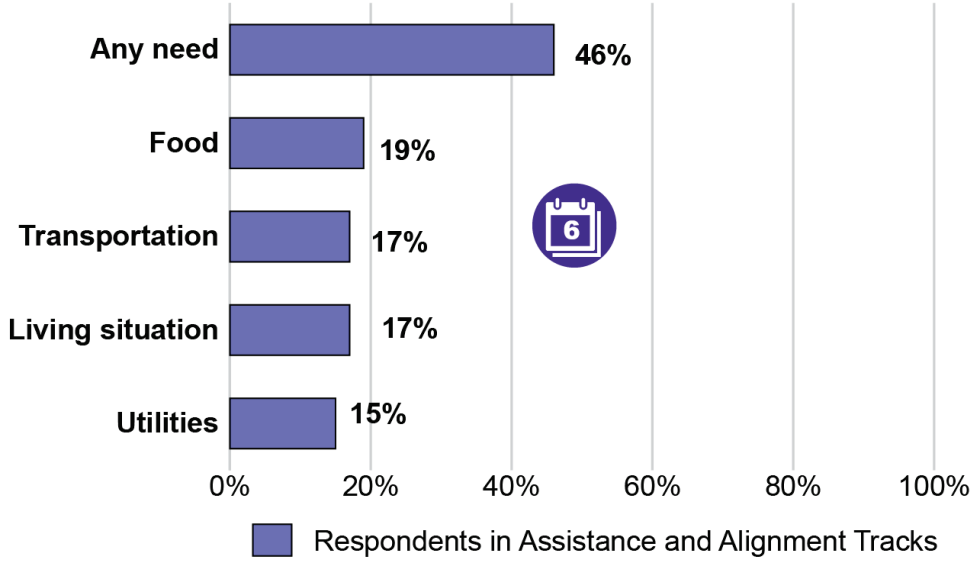
Among beneficiaries deemed eligible for navigation (i.e., one or more HRSNs and two or more emergency department (ED) visits in the 12 months before screening) who were screened more than once (35% of all beneficiaries), between 2% (safety need) and 34% (food need) screened positive for the same need multiple times over the course of the model. This shows persistence of needs over time among beneficiaries who were navigation eligible at one or more screenings (see **Appendix B, Table B-13** for additional details on those screened more than once over the course of the model). It is important to note that food need was not only the most prevalent HRSN identified at screening (as discussed in **Chapter 2:** Characteristics and HRSNs of Navigation-Eligible Beneficiaries and above in the current chapter) but also the most persistent HRSN over time.

A subset of beneficiaries also reported HRSNs to researchers that were not identified at screening. Among beneficiaries surveyed roughly 6 months after their initial screening, nearly half reported having at least one HRSN at the time of the survey that was not reported at screening, indicating emergence of new needs over time (**Exhibit 7-7**).

[23] A navigation case is defined as a period of up to 12 months in which a navigator provided navigation services to a beneficiary with one or more HRSNs and two or more ED visits in the 12 months prior to screening.

Exhibit 7-7. Proportion of AHC-Eligible Beneficiaries with New Needs Roughly 6 Months After Being Initially Screened

Beneficiaries Often Had New Needs Roughly 6 Months After Being Initially Screened.



Source: AHC Beneficiary Survey
Methods: The Assistance Track treatment-on-the-treated estimates the effect of the AHC Model navigation among those beneficiaries who accepted navigation, using assignment to the Assistance Track intervention group as an instrument to account for unobserved differences between beneficiaries who did and did not accept navigation.
Time Frame: January 2020–January 2022.
Methods: Includes beneficiaries screened from April 2019–March 2021, who were surveyed roughly six months after their initial screening. Estimates for the Assistance Track were weighted to adjust for survey design and nonresponse.

Interview data substantiate that beneficiaries' HRSNs persisted or recurred, even with partial resolution. Many beneficiaries who were connected with CSPs to address HRSNs and received some services reported needs being not fully met because services were not adequate. For example, a few beneficiaries described living in low-quality housing. One beneficiary with diabetes found the offerings at a local food pantry incompatible with their dietary restrictions.

> "The reason why I ran into so much trouble with my food stamps was because I am diabetic. So everything that I eat costs more. There's a lot of stuff that I can't have."
>
> — Beneficiary

Although beneficiaries appreciated the help they received, it was not always adequate to fully and permanently resolve their HRSNs. Several beneficiaries expressed a need for ongoing assistance to fully meet HRSNs, in addition to the utilities assistance or food services that they were already using. For example, the financial support available to help individuals with utility bills did not always cover the full amount owed, or food pantries limited the number of visits or amount of food an individual can select.

> "But they give me $66, and my light bill is always $200. So, I don't know. Like right now, it's currently $220."
>
> — Beneficiary

The COVID-19 public health emergency affected beneficiaries' HRSNs and access to CSP services in complex ways (also see **Chapter 2:** Characteristics and HRSNs of Navigation-Eligible Beneficiaries). We asked beneficiaries who responded to the survey from November 2020 to January 2022 whether HRSNs had gotten worse since the pandemic began. Across all tracks, most beneficiaries reported that at least one HRSN had gotten worse during the pandemic. The proportion of beneficiaries reporting needs getting worse during the pandemic varied over time. (See **Appendixes K** and **L** for additional results related to COVID-19.) Conversely, for each of the four HRSNs included in the survey, about 25%–60% of beneficiaries reported that services had improved their HRSNs during the pandemic.

> "[The COVID-19 public health emergency] made services easier to get because they weren't so tight on the money everywhere."
>
> — Beneficiary

Conclusions and Lessons Learned

The AHC Model's navigation did not increase connection to community services and HRSN resolution for beneficiaries beyond giving beneficiaries a list of community resources. As previously reported in the Second Evaluation Report and expanded upon in this chapter, several factors might help explain this. First, both navigators and beneficiaries reported challenges communicating with CSPs. Second, CSPs were not always accessible to beneficiaries due to lack of transportation. Third, some beneficiaries did not qualify for CSP services because of eligibility requirements, including age, income, or prior justice system involvement. Fourth, available services may not be sufficient to fully resolve needs.

Certain beneficiary, bridge organization, and community characteristics were associated with an increased likelihood of HRSN resolution. Beneficiaries who were older (aged 65 or older), female, and enrolled in Medicaid insurance were more likely to resolve all their HRSNs than other beneficiaries. Bridge organizations with strong partnerships with CSPs (including through Alignment Track activities) also were more likely to resolve beneficiaries' HRSNs. In addition, communities with higher levels of resource availability and lower need for assistance with transportation or housing were more likely to resolve beneficiaries' HRSNs. Collectively, these findings highlight the importance of strong community partnerships and having sufficient needs in achieving transformation goals.

Although the AHC Model helped some beneficiaries address identified HRSNs, HRSNs persisted or newly arose for a subset of beneficiaries. This finding suggests that some beneficiaries' HSRNs may not be resolvable in a sustained way, and thus may require long-term follow-up.

Exhibit 7-8 highlights key challenges that bridge organizations and their communities experienced and promising strategies for addressing those challenges. The exhibit also includes lessons learned related to navigation to community services to resolve beneficiaries' HRSNs.

Exhibit 7-8. Challenges and Lessons Learned

- Communities in which beneficiaries face widespread transportation challenges were less likely to resolve HRSNs.
- About one-third of beneficiaries were lost to follow-up.
- Community resources are not static.
- Beneficiaries' needs may change over time.

- Partnerships with local, state, or regional transit authorities can begin to address transportation needs.
- Screeners can collect all contact information (phone, email, social media) that beneficiaries are willing to share so navigators can repeatedly reach out through multiple channels.
- Navigators can be given time and resources to stay up to date on CSP resources, including eligibility requirements.
- Navigators may prompt beneficiaries about whether any new needs have arisen during the navigation period.

- Transportation needs may interfere with beneficiaries' access to CSPs for any identified HRSN.
- Beneficiaries appreciate when navigators persist in attempts to reach them through all available channels.
- Navigators who know their communities are best able to make successful referrals.
- HRSNs may be more analogous to chronic conditions than to acute medical episodes and thus could be considered conditions to manage rather than resolve.

Chapter 8: Model Impacts on Health Care Cost, Quality of Care, and Health

Despite the lack of evidence that the Accountable Health Communities (AHC) Model led to increases in the resolution of HRSNs, data show that the model was associated with significant reductions in health care expenditures and improvements in some quality of care outcomes related to hospital use.

This chapter addresses Research Objective 3, which sought to understand the impact of the AHC Model relative to usual care (screening and referral).

Key Takeaways

- Expenditures and hospital use declined among Medicaid and fee-for-service (FFS) Medicare beneficiaries in the Assistance Track.
- Emergency department (ED) visits, avoidable ED visits, and inpatient admissions declined more for Medicaid beneficiaries in the Alignment Track than for Medicaid beneficiaries in the comparison group.

(continued)

The Second Evaluation Report presented impact analyses for FFS Medicare beneficiaries in the Assistance and Alignment Tracks through 3 years post-screening, Medicaid beneficiaries in the Assistance and Alignment Tracks through 2 years post-screening, a combined sample of FFS Medicare and Medicare Advantage beneficiaries in the Assistance Track through the first year post-screening, and multiple subpopulations. This report adds a year of data, an analysis of subpopulations with chronic physical or mental illnesses, a sensitivity analysis on the impact for beneficiaries who received navigation services, and effects on beneficiary-reported health and quality of life.

Key Research Questions

- How did the AHC Model affect Medicaid and Medicare beneficiaries' health care costs, quality of care, and health outcomes?
- Did impacts differ for the Assistance and Alignment Tracks?
- Were there differences in findings for key outcomes by subpopulations based on sociodemographic characteristics, clinical characteristics, or HRSNs?

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 Warehouse (CCW)
- FFS Medicare research identifiable files in the CCW
- Medicare Advantage encounter records in the Integrated Data Repository
- Survey of beneficiaries conducted roughly 6 months after beneficiaries were initially screened and enrolled into the AHC Model

See **Appendix D** for details on the data sources and methods. See **Appendixes M** and **N** for more-detailed results.

Key Takeaways (continued)

- A combined sample of Medicare Advantage and FFS Medicare beneficiaries also had reduced ED use in both tracks.
- Although not the original purpose of the intervention, navigators may have helped beneficiaries access health care services.
- The following subpopulations of Medicaid beneficiaries in the Assistance Track had better outcomes post-screening:
  - Multiple HRSNs (vs. 1 HRSN)
  - Major depression (vs. without major depression)
- The following subpopulations of FFS Medicare beneficiaries in the Assistance Track had better outcomes post-screening:
  - Non-White and/or Hispanic (vs. White)
  - Diabetes (vs. without diabetes)
  - Pulmonary disease (vs. without pulmonary disease)
- Alignment Track beneficiaries self-reported small benefits for overall health and mental health post-screening.

Assistance Track Impacts on Expenditures

The Second Evaluation Report showed that the Assistance Track intervention and randomized control groups were remarkably similar in baseline health care measures and sociodemographic characteristics. Our updated analyses continue to demonstrate baseline similarities between intervention and control groups (see **Exhibits N-1** and **N-2, Appendix N**). 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.

The AHC Model Lowered Total Expenditures in the Assistance Track

Exhibit 8-1 summarizes the overall impacts on total expenditures for Medicaid and FFS Medicare beneficiaries in the Assistance Track. Full details are in **Exhibit M-4** (Medicaid) and **Exhibit M-31** (FFS Medicare) in **Appendix M**.[24]

Over the first 3 years after screening, for Medicaid beneficiaries in the Assistance Track, expenditures per beneficiary per month in the intervention group were $54 (3%) lower than for the control group. This finding was consistent with expectations of the AHC Model's effect and was statistically significant (p = .02, **Exhibit M-4** in **Appendix M**). For FFS Medicare beneficiaries in the Assistance Track, in the first 4 years after screening, expenditures per beneficiary per month in the intervention group were $116 (4%) lower than for the control group, a statistically significant result (p = .05, **Exhibit M-31** in **Appendix M**).

Exhibit 8-1. Overall Model Impacts on Expenditures for Medicaid and FFS Medicare Beneficiaries in the Assistance Track

Medicaid and FFS Medicare beneficiaries in the Assistance Track intervention group had statistically significantly lower total expenditures relative to the control group in the first 3 years (Medicaid) or 4 years (Medicare FFS) after screening.

Outcome	Expected Direction of Impact	Medicaid	Medicare FFS
Total expenditures	⩛	↓	↓

Legend: ⩛ Lower ⩝ Higher ◇ Could be lower or higher

↓ As expected, in this period, beneficiaries in the Assistance Track intervention group had statistically significantly lower expenditures than beneficiaries in the control group at the p < 0.10 level.

Sample Size: 26,919 Medicaid beneficiaries and 10,517 FFS Medicare beneficiaries in the intervention group.
Methods: Weighted ordinary least squares estimated differences in total expenditures.
Weight Variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare claims.
Time Frame: Medicaid data cover May 2018–December 2021; FFS Medicare data cover May 2018–December 2022.
Definitions: FFS = fee-for-service.

[24] The Medicare Advantage sample was too small to generate separate estimates. See below for impacts on the combined sample of FFS Medicare and Medicare Advantage beneficiaries in the Assistance Track and the Alignment Track.

Impacts on Expenditures for the Assistance Track by Year Post-Screening

We calculated the overall impact estimates in **Exhibit 8-1** as the average of the year-specific impacts over 3 years (for Medicaid) or 4 years (for FFS Medicare) (see **Exhibits M-4** and **M-31** in **Appendix M**).

For **Medicaid**, in line with the overall finding, total expenditures were statistically significantly lower for Assistance Track beneficiaries relative to the control group for each of the 3 years post-screening. The magnitude increased with each year, from 3% in the first year after screening to 5% in the third year after screening.

For **FFS Medicare**, the difference between the intervention and control groups for total expenditures generally grew from the first through the fourth year after screening. Total expenditures were statistically significantly lower in the intervention group than in the control group in the third and fourth years after screening.

Alignment Track Impacts on Expenditures

Because Alignment Track activities took place at the community level, all Alignment Track beneficiaries were in the intervention group by definition. As a substitute for a randomized control group, the Alignment Track impact analysis used the Assistance Track's control group as the Alignment Track's comparison group. We chose this approach because the AHC Model eligibility criteria are the same for both tracks. Preliminary analyses showed that the Alignment Track's intervention group and the Assistance Track's control group had some differences in sociodemographic and geographic characteristics and in social service needs. Thus, we applied propensity score weighting to ensure the two groups matched more closely. (For details on the propensity score analysis, including specific differences observed across groups, see **Appendix N**.) To estimate impacts, we used a difference-in-differences (D-in-D) regression model to compare the change in outcomes from 3 years before screening to the relevant time periods after screening for the two beneficiary groups (Medicaid and FFS Medicare).

Changes in Expenditures Did Not Differ in the Alignment Track Relative to the Comparison Group for Medicaid and FFS Medicare Beneficiaries

Among both **Medicaid beneficiaries** and **FFS Medicare beneficiaries** in the Alignment Track, total expenditures declined relative to the comparison group, but these findings were not statistically significant. Full details are in **Exhibit M-6** (Medicaid) and **Exhibit M-33** (FFS Medicare) in **Appendix M**.

Impacts on Expenditures for the Alignment Track by Year Post-Screening

We calculated the overall impact estimates as the average of the year-specific impacts, taking the average of 3 years (for Medicaid) or 4 years (for FFS Medicare) (see **Exhibits M-6** and **M-33** in **Appendix M**). Among both Medicaid and FFS Medicare beneficiaries, total expenditures declined relative to the comparison group each year after screening, but the declines were not statistically significant for any year.

AHC Model Impacts on Quality of Care

We expected the AHC Model could lead to improvements in quality of care. Specifically, we expected that navigation services could lead to improvements in quality of care related to hospital use, including fewer ED visits, inpatient stays, and readmissions and more follow-up visits after hospitalizations. The AHC Model could also affect PCP visits in multiple ways; visits could increase if beneficiaries sought more preventive care or decrease if beneficiaries' health improved overall. **Exhibit 8-2** summarizes the overall impacts on quality outcomes for

Medicaid and FFS Medicare beneficiaries in the Assistance Track. Full details are in **Exhibit M-4** (Medicaid) and **Exhibit M-31** (FFS Medicare) in **Appendix M**.[25]

In addition, we expected that the AHC model could lead to improvements in disease-specific quality of care measures. Specifically, improving housing conditions could lead to fewer environmentally exacerbated asthma complications and fewer respiratory illnesses that need treatment. To test this hypothesis, we looked at the effect of the AHC Model on the percentage of beneficiaries who received treatment for respiratory illnesses and the percentage of beneficiaries with asthma whose asthma medication ratio exceeded 50% in the claims data. We expected that the percentage of beneficiaries treated for respiratory illnesses would decrease. The asthma medication ratio measures the use of asthma controller medications relative to all asthma medications; thus, ratios above 50% indicate that beneficiaries are more effectively managing their asthma through use of controller medications. Accordingly, we expected the asthma medication ratio to increase, with fewer beneficiaries needing asthma medications dispensed for acute asthmatic events.

We also expected that increased resolution of HRSNs more generally could reduce external stressors. This in turn could improve beneficiaries' ability to seek and adhere to treatment for mental health conditions such as depression and substance use disorders. To capture these effects, we looked at the effects of the AHC Model on the percentage of beneficiaries who were newly treated with an antidepressant and who remained on an antidepressant for at least 12 weeks and for at least 6 months in the claims data. Additionally, we looked at the effects of the AHC Model on the percentage of beneficiaries with alcohol or other drug dependence who began treatment within 14 days of diagnosis.[26]

In addition, navigators may have leveraged their role and relationships with beneficiaries to help beneficiaries seek more-timely health care and better navigate the health care system to manage underlying health conditions. If so, depression management medication use and initiation of alcohol and other drug treatment also could have been affected.

Beyond the measures in this report, the AHC Model could have affected a handful of additional health or quality-of-care outcomes, such as tobacco screening, domestic violence screening, flu shots, and breast cancer screening. There were not enough beneficiaries in the study population to support these analyses, though, perhaps because screening procedure codes and flu shots are not always captured in claims data. Thus, we excluded these outcomes.

The AHC Model Improved Quality of Care Outcomes Related to Hospital Use in the Assistance Track

Over the first 3 years after screening, Medicaid beneficiaries in the intervention group had four (4%) fewer inpatient admissions per 1,000 beneficiaries after screening relative to the control group ($p = 0.05$, **Exhibit M-4** in **Appendix M**). In the first 4 years after screening, FFS Medicare beneficiaries in the intervention group, relative to FFS Medicare beneficiaries in the control group, had 26 (5%) fewer ED visits, 18 (7%) fewer avoidable ED visits, and four (7%) fewer admissions for ambulatory care sensitive conditions (ACSC) per 1,000 beneficiaries. All these differences were statistically significant ($p = .01$ for ED visits and avoidable ED visits and $p = 0.09$ for ACSC admissions, **Exhibit M-31** in **Appendix M**). The reductions were all in the expected direction of impact for the AHC

[25] The Medicare Advantage sample was too small to generate separate estimates. See below for impacts on the combined sample of FFS Medicare and Medicare Advantage beneficiaries in the Assistance Track and the Alignment Track.

[26] This measure excludes beneficiaries who have any diagnosis of alcohol and other drug dependence in the 60 days before the index episode. We attempted to look at a measure of engagement with alcohol or other drug dependence treatment, but not enough beneficiaries in the study population initiated treatment.

Model. FFS Medicare beneficiaries in the intervention group also had 71 (3%) fewer primary care provider (PCP) visits per 1,000 beneficiaries relative to those in the control group, a statistically significant result ($p < 0.01$).

Exhibit 8-2. Overall Model Effects on Quality of Care for Medicaid and FFS Medicare Beneficiaries in the Assistance Track

Medicaid and FFS Medicare beneficiaries in the Assistance Track intervention group had statistically significantly lower hospital use relative to the control group in the first 3 years (Medicaid) or 4 years (Medicare FFS) after screening.

Outcome	Expected Direction of Impact	Medicaid	Medicare FFS
Inpatient admissions	⩔	⬇	NS
ACSC admissions	⩔	NS	⬇
Unplanned readmissions	⩔	NS	NS
ED visits	⩔	NS	⬇
Avoidable ED visits	⩔	NS	⬇
PCP visits	◇	NS	↓

Legend: ⩔ Lower ⩓ Higher ◇ Could be lower or higher

⬇ As expected, in this period, beneficiaries in the Assistance Track intervention group had statistically significantly fewer visits or stays than beneficiaries in the control group at the $p < 0.10$ level.

↓ Beneficiaries in the Assistance Track intervention group had statistically significantly fewer PCP visits than beneficiaries in the control group at the $p < 0.10$ level, but there was no clear expected direction for PCP visits.

NS In this period, use did not statistically significantly differ between beneficiaries in the Assistance Track intervention group and beneficiaries in the control group at the $p < 0.10$ level.

Sample Size: 30,452 Medicaid beneficiaries and 10,517 FFS Medicare beneficiaries in the intervention group.
Methods: Weighted Poisson estimated differences in inpatient admissions, ACSC admissions, ED visits, avoidable ED visits, and PCP visits. Weighted logistic estimated differences in unplanned readmissions.
Weight Variable: Number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS) and Medicare claims.
Time Frame: Medicaid data cover May 2018–December 2021; FFS Medicare data cover May 2018–December 2022.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.

Other quality of care outcomes were not statistically significantly different for Medicaid or FFS Medicare beneficiaries in the Assistance Track. For both payers, the intervention group had lower unplanned readmissions than the control group, although the differences were not statistically significant (see **Exhibit M-4** and **Exhibit M-31** in **Appendix M)**. FFS Medicare beneficiaries in the intervention group also had lower inpatient admissions than the control group, but again, the difference was not statistically significant. Medicaid beneficiaries in the intervention group and control group had similar post-screening rates for ED visits, avoidable ED visits, ACSC admissions, and PCP visits.

Post-discharge outcomes in the Assistance Track were mixed, and no intervention–control differences were statistically significant (results shown in **Table M-4** in **Appendix M** only). Medicaid beneficiaries in the Assistance Track intervention group had similar rates of follow-up visits within 14 days of discharge and ED visits within 30

days of discharge to the control group. Contrary to the expected direction of AHC Model impacts, Medicaid beneficiaries in the intervention group had a lower rate of follow-up visits within 30 days of mental health hospital discharge, and FFS Medicare beneficiaries had a lower rate of follow-up visits within 14 days of discharge.[27] FFS Medicare beneficiaries in the intervention group had the same rate of follow-up visits within 30 days of mental health hospital discharge as the control group. As expected, FFS Medicare beneficiaries had lower rates of ED visits within 30 days of hospital discharge.

Impacts on Quality of Care for the Assistance Track by Year Post-Screening

We calculated the overall impact estimates in **Exhibit 8-2** as the average of the year-specific impacts over 3 years (for Medicaid) or 4 years (for FFS Medicare) (see **Exhibits M-4** and **M-31** in **Appendix M**).

For Medicaid, in the Assistance Track, beneficiaries had 12 (2%) fewer ED visits per 1,000 beneficiaries in the first year after screening relative to the control group ($p = .07$). However, there was no difference in the second year and a relative increase for the intervention group in the third year, leading to an overall nonsignificant impact (**Exhibit M-4, Appendix M**). Assistance Track beneficiaries also had fewer inpatient admissions in each of the 3 years post-screening, but the impact was only statistically significant for the overall impact estimate.

For FFS Medicare, the difference between the intervention and control groups for ED visits and avoidable ED visits peaked in the third year after screening, with 8% fewer ED visits and 12% fewer avoidable ED visits in the intervention group. ED visits were statistically significantly lower in the intervention group than in the control group during the first 3 years after screening, as expected (**Exhibit M-31, Appendix M**). However, in the fourth year after screening, ED visits were the same in the intervention and control groups. Avoidable ED visits were statistically significantly lower in the intervention group in the first and third years after screening, but not the second or fourth years after screening. For ACSC admissions and PCP visits, the difference between the intervention and control groups generally grew from the first through the fourth year after screening. PCP visits were statistically significantly lower in the second through fourth years after screening.

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

Exhibit 8-3 summarizes the overall impacts on quality of care for Medicaid and FFS Medicare beneficiaries in the Alignment Track. Full details are in **Exhibit M-6** (Medicaid) and **Exhibit M-33** (FFS Medicare) in **Appendix M**.

Among Medicaid beneficiaries in the Alignment Track, ED visits declined by 34 (4%) more visits per 1,000 beneficiaries relative to the comparison group ($p = .06$) (see **Exhibit M-6** in **Appendix M**). Likewise, avoidable ED visits declined by 14 (4%) more visits per 1,000 beneficiaries relative to the comparison group ($p < 0.07$). Alignment Track beneficiaries also had a greater decline in inpatient admissions; inpatient admissions declined by 7 (6%) more admissions per 1,000 beneficiaries relative to the comparison group ($p = .07$). Consistent with expectations, unplanned readmissions also declined relative to the comparison group, but these findings were not statistically significant. Changes in ACSC admissions and PCP visits were similar between the intervention group and the comparison group.

Consistent with expectations, follow-up visits within 14 days of hospital discharge and within 30 days of mental health discharge increased for Medicaid beneficiaries in the Alignment Track relative to the comparison group. However, the impacts were not statistically significant (results not shown in **Exhibit 8-3**; see **Exhibit M-6** in

[27] The number of mental health hospital discharges in the last year after screening was small. Therefore, we limited our analyses of follow-up visits within 30 days of mental health hospital discharge to the first 2 years after screening for Medicaid and to the first 3 years after screening for FFS Medicare beneficiaries.

Appendix M). Changes in ED visits within 30 days of discharge were similar between the intervention group and the comparison group.

For FFS Medicare beneficiaries in the Alignment Track, impact estimates were also broadly consistent with expectations, but they were not statistically significant (see **Exhibit 8-3**). This may be because the methodology (D-in-D combined with propensity scoring) reduced the statistical power of the analysis, regardless of the given sample size. As such, although the sample size in the Alignment Track analyses was larger than in the Assistance Track analyses, the Alignment Track analyses probably still were underpowered relative to the Assistance Track analyses. The FFS Medicare sample size was also substantially lower than the Medicaid sample size. Inpatient admissions, ED visits, and avoidable ED visits all declined relative to the comparison group, but the impacts were not statistically significant. PCP visits declined by 73 (4.6%) visits per 1,000 beneficiaries relative to the comparison group, a statistically significant result (p = 0.08) (see **Exhibit M-33** in **Appendix M**). Changes in ACSC admissions and unplanned readmissions were similar between the intervention group and the comparison group.

Contrary to expectations, follow-up visits within 14 days of hospital discharge declined among FFS Medicare Alignment Track beneficiaries but increased in the comparison group. The intervention group experienced a 3% decline (p = .07) relative to the comparison group (see **Exhibit M-33** in **Appendix M**). Although not statistically significant, the estimated impact was negative for ED visits within 30 days of a hospital discharge and positive for follow-up visits within 30 days of hospital discharge for mental health,[28] both in line with expectations.

Impacts on Quality of Care for the Alignment Track by Year Post-Screening

We calculated the overall impact estimates reported in **Exhibit 8-3** as the average of the year-specific impacts, taking the average of 3 years (for Medicaid) or 4 years (for FFS Medicare) (see **Exhibits M-6** and **M-33** in **Appendix M**). Among both Medicaid and FFS Medicare beneficiaries, for most outcomes, the impacts by year after screening reflected the impact over the entire observation period.

For Medicaid beneficiaries, ED visits, avoidable ED visits, inpatient admissions, and unplanned readmissions declined for the Alignment Track relative to the comparison group each year after screening. However, the decline in ED visits and avoidable ED visits was only statistically significant in the second year after screening, and the decline in inpatient admissions reached statistical significance in the third year only. The decline in unplanned readmissions was not statistically significant for any of the 3 years post-screening. Follow-up visits within 14 days of any inpatient discharge increased in each year post-screening, and this increase was statistically significant in the third year post-screening.

Among FFS Medicare beneficiaries, ED visits and avoidable ED visits declined relative to the comparison group each year after screening, but none of the changes were statistically significant. PCP visits also declined relative to the comparison group for every year after screening. However, only the decline in the fourth year after screening was statistically significant. The impacts for inpatient admissions, ACSC admissions, and readmissions were more mixed, with no change in some years, increases in other years, and declines in the remaining years. However, none of the changes for these three outcomes were statistically significant in any year.

[28] The number of mental health hospital discharges in the fourth year after screening was small. Therefore, we limited our analyses of follow-up visits within 30 days of mental health hospital discharge to the first 3 years after screening.

Exhibit 8-3. Overall Model Impacts on Quality of Care for Medicaid and FFS Medicare Beneficiaries in the Alignment Track

In the first 3 years after screening, Medicaid beneficiaries had greater declines in inpatient admissions, ED visits, and avoidable ED visits. In the first 4 years after screening, among FFS Medicare beneficiaries, almost all quality of care outcomes in the Alignment Track decreased relative to the comparison group, but the differences were not statistically significant.

Outcome	Expected Direction of Impact	Medicaid	Medicare FFS
Inpatient admissions	⌄⌄	↓	NS
ACSC admissions	⌄⌄	NS	NS
Unplanned readmissions	⌄⌄	NS	NS
ED visits	⌄⌄	↓	NS
Avoidable ED visits	⌄⌄	↓	NS
PCP visits	◇	NS	↓

Legend: ⌄⌄ Lower ⌃⌃ Higher ◇ Could be lower or higher

↓ As expected, in this period, beneficiaries in the Alignment Track group had statistically significantly slower growth or greater reductions in quality of care outcomes than beneficiaries in the comparison group at the $p < 0.10$ level.

↓ Beneficiaries in the Alignment Track had statistically significantly lower PCP visits than beneficiaries in the comparison group at the $p < 0.10$ level, but there was no clear expected direction for PCP visits.

NS In this period, quality of care did not statistically significantly differ between beneficiaries in the Alignment Track group and beneficiaries in the comparison group at the $p < 0.10$ level.

Sample Size: 61,815 Medicaid beneficiaries and 20,608 FFS Medicare beneficiaries in the intervention group.
Methods: Weighted Poisson estimated impacts on inpatient admissions, ACSC admissions, ED visits, avoidable ED visits, and PCP visits. Weighted logistic estimated impacts on unplanned readmissions, follow-up visits within 14 days of discharge, follow-up visits within 30 days of a hospital discharge for mental health, and ED visits within 30 days of a hospital discharge.
Weight Variable: Propensity score analysis weight multiplied by the number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files and Medicare claim files.
Time Frame: Medicaid data cover May 2015–December 2021; FFS Medicare data cover May 2015–December 2022.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.
Other Notes: Differences were not statistically significant for follow-up visits within 14 days of discharge, follow-up visits within 30 days of a hospital discharge for mental health, and ED visits within 30 days of a hospital discharge (results not shown).

The AHC Model Had Little Impact on Quality of Care Measures Related to Specific Diseases

For both payers and across both tracks, there were no statistically significant differences or consistent trends in the disease-specific quality-of-care measures (asthma medication ratio, percentage of beneficiaries treated for respiratory illness, antidepressant medication management, initiation of alcohol and other drug treatment) (see **Exhibits M-5** and **M-32** in **Appendix M** for full results).

AHC Model Impacts for a Combined Sample of FFS Medicare and Medicare Advantage Beneficiaries

Estimates of AHC Model impacts on the overall Medicare population for each track use a combined sample of FFS Medicare and Medicare Advantage beneficiaries. Slightly more than a quarter of beneficiaries linked to Medicare data for this report only ever enrolled in Medicare Advantage. Because this represents a relatively small portion of the AHC sample, we did not develop separate estimates for the Medicare Advantage population.

Exhibit 8-4 summarizes the overall impacts on quality of care for the combined FFS Medicare and Medicare Advantage sample of beneficiaries in the Assistance and Alignment Tracks 2 years after screening.[29] Full details are in **Exhibits M-60** and **M-61** in **Appendix M**. For the Assistance Track, the intervention group had 20 (3%) fewer ED visits per 1,000 beneficiaries and 23 (8%) fewer 30-day readmissions per 1,000 discharges[30] than the control group among the combined FFS Medicare and Medicare Advantage sample 2 years after screening (p = .04 for ED visits and p = .04 for readmission; see **Exhibit M-60** in **Appendix M**). This was consistent with the expected direction of impact. The intervention group also had fewer inpatient admissions and ACSC admissions than the control group in the combined sample. Although these differences were not statistically significant, they were consistent with the expected direction of the impact. The intervention group also had fewer PCP visits than the control group, although the difference was not statistically significant.

ED visits declined in the Alignment Track while remaining steady in the comparison group, resulting in a relative decline of 44 (6%) visits per 1,000 Medicare beneficiaries (p = .08, see **Exhibit M-61** in **Appendix M**). PCP visits also declined for the Alignment Track while remaining the same for the comparison group, resulting in a relative decline of 92 (7%) visits per 1,000 beneficiaries (p = .02). However, 30-day readmissions increased for the Alignment Track while declining in the comparison group, resulting in a relative increase of 23 (8%) readmissions per 1,000 discharges for the Alignment Track relative to the comparison group. This is a statistically significant result (p = .06), but contrary to the expected direction of impact. Inpatient admissions declined and ACSC admission increased relative to the comparison group, although the differences were not statistically significant.

Results for the combined FFS Medicare and Medicare Advantage sample were generally consistent with the analyses for FFS Medicare beneficiaries only. FFS Medicare beneficiaries in the intervention group of the Assistance Track also had fewer ED visits, inpatient admissions, ACSC admissions, PCP visits, and readmissions than the control group in the first 2 years after screening (note that the FFS Medicare results reported in this chapter are 4 years after screening). For the Alignment Track, the intervention group had declines in ED visits, inpatient admissions, and PCP visits relative to the comparison group in the first 2 years after screening. In addition, ACSC admissions increased relative to the comparison group in the first year after screening and declined in the second year, whereas unplanned readmissions increased in the first year and declined in the second year. This was consistent with increases in ACSC admissions and 30-day readmissions for the combined FFS Medicare and Medicare Advantage sample in the first 2 years after screening. The differences in the results for the 30-day readmissions may be because we were restricted to all-cause readmissions for the combined FFS Medicare and Medicare Advantage sample, whereas we calculated unplanned readmissions for the FFS Medicare sample.

[29] We are limited to 2 years post-screening for the combined FFS Medicare and Medicare Advantage analysis because of lags in availability of the Medicare Advantage data.

[30] We measured all-cause readmissions for the combined FFS Medicare and Medicare Advantage analysis. In contrast, we measured unplanned readmissions for the Medicaid and exclusively FFS Medicare analyses. This was because of data quality concerns with Medicare Advantage encounter data, which we discuss further in **Appendix D**.

Exhibit 8-4. Overall Model Impacts on Quality of Care for a Combined Sample of FFS Medicare and Medicare Advantage Beneficiaries

Across a combined sample of FFS Medicare and Medicare Advantage beneficiaries, in the first 2 years after screening, ED visits declined for both the Assistance Track and Alignment Track beneficiaries relative to the Assistance Track control group.

Outcome	Expected Direction of Impact	Assistance Track	Alignment Track
Inpatient admissions	⩔	NS	NS
ACSC admissions	⩔	NS	NS
ED visits	⩔	↓	↓
30-day readmissions	⩔	↓	↑
PCP visits	⇕	NS	↓

Legend: ⩔ Lower ⩓ Higher ⇕ Could be lower or higher

↓ As expected, in this period, beneficiaries in the Assistance Track had statistically significantly reduced visits and beneficiaries in the Alignment Track group had slower growth or greater reductions in use than beneficiaries in the comparison group at the $p < 0.10$ level.

↑ Contrary to expectations, beneficiaries in Alignment Track had statistically significantly more readmissions than beneficiaries in the comparison group at the $p < 0.10$ level.

↓ Beneficiaries in the Alignment Track had statistically significantly lower PCP visits after screening than beneficiaries in the comparison group at the $p < 0.10$ level, but there is no clear expected direction for PCP visits.

NS In this period, use did not differ between beneficiaries in the Assistance Track or Alignment Track group and beneficiaries in the comparison group.

Sample Size: 19,788 beneficiaries in the Alignment Track intervention group and 13,265 beneficiaries in the Assistance Track intervention group.
Methods: Weighted Poisson estimated impacts on inpatient admissions, ACSC admissions, ED visits, and PCP visits. Weighted logistic estimated impacts on 30-day readmissions.
Weight Variable: Propensity score analysis weight multiplied by the number of months during the quarter the beneficiary was eligible for Medicaid or FFS Medicare divided by 3.
Source: RTI analysis of Medicare claims and encounter data from the integrated data repository.
Time Frame: May 2018–December 2020.
Definitions: ACSC = ambulatory care sensitive condition; ED = emergency department; FFS = fee-for-service; PCP = primary care provider.

AHC Model Impacts on Beneficiary-Reported Health

We expected that improvements in quality of care and reduction of stressors would improve beneficiary-reported health, mental health, and quality of life. We surveyed navigation-eligible beneficiaries in the Alignment Track, Assistance Track intervention group, and Assistance Track control group roughly 6 months after they were initially screened for HRSNs and enrolled into the AHC Model. The survey asked about their overall health, mental health, quality of life, and stress level at the time of the survey and over the 6 months following screening. For each measure of health and quality of life, we calculated binary outcomes reflecting whether beneficiaries improved in the measure over the last 6 months *or* reported the best-possible response at the time of the survey. The survey also included the Patient Health Questionnaire-2 (PHQ-2), a two-item screening for depression, and a single item asking how often beneficiaries feel lonely or disconnected from those around them. We expected these health and mental health outcomes to improve in response to the AHC Model. See **Appendix C** for more information on the construction of these measures and analysis methods.

The AHC Model Led to Some Improvements in Beneficiary-Reported Health and Quality-of-Life Measures

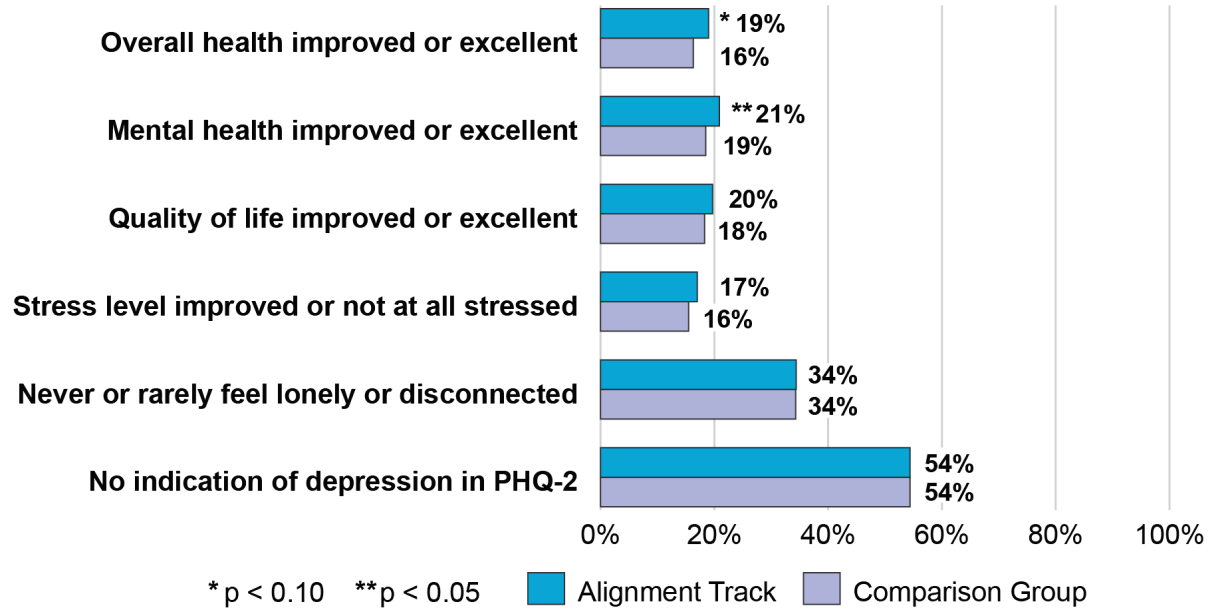
As described above, we surveyed beneficiaries about a variety of health, mental health, and quality of life outcomes 6 months after they were initially screened and enrolled into the AHC Model. We found no statistically significant differences in these outcomes between the Assistance Track intervention and control groups.

We used propensity score weighting to compare self-reported health, mental health, and quality-of-life outcomes between beneficiaries in the Alignment Track and Assistance Track control group (the comparison group). This method was necessary because, unlike in the Assistance Track, the Alignment Track did not have a corresponding control group, and beneficiaries across the two tracks were too dissimilar to make a direct comparison. See **Appendix N** for comparisons of the characteristics of beneficiaries in the Assistance Track intervention group and the Alignment Track.

Beneficiaries in the Alignment Track were more likely to report excellent or improved health status than beneficiaries in the comparison group (**Exhibit 8-5**). Specifically, 19% of beneficiaries in the Alignment Track reported that their overall health was either excellent at the time of the survey or had improved over the prior 6 months, relative to 16% in the comparison group ($p < 0.10$). Additionally, 21% of beneficiaries in the Alignment Track reported that their mental health status was either excellent at the time of the survey or had improved over the prior 6 months, as did 19% of beneficiaries in the comparison group ($p < 0.05$). There were no statistically significant differences between the Alignment Track and the comparison group for other outcomes of self-reported health and quality of life.

Exhibit 8-5. Self-Reported Health Status, Quality of Life, and Stress

Alignment Track beneficiaries were more likely than the comparison group to report excellent or improved overall and mental health status.



Methods: Includes beneficiaries screened from April 2019–March 2021, who were surveyed roughly 6 months after their initial screening. Estimates for the Alignment Track were compared to the propensity-weighted Assistance Track control group (see **Appendix C** for full methodology).
Source: AHC Beneficiary Survey
Time Frame: January 2020–January 2022
Definitions: PHQ-2 = Patient Health Questionnaire-2

Differences in Impacts for Beneficiary Subpopulations in the Assistance and Alignment Tracks

The AHC Model's eligibility requirements focused on higher-risk Medicaid and Medicare beneficiary populations. A large majority of navigation-eligible beneficiaries in the model had low incomes; approximately 85% of all beneficiaries were eligible for Medicaid, with about 75% eligible for Medicaid only and 10% dually eligible for Medicaid and Medicare. In addition—as the Second Evaluation Report showed—the eligibility criteria for the AHC Model identified a chronically higher-need population. Updated analyses this year confirmed this for additional years (see **Exhibits M-2** and **M-29, Appendix M**). We found a persistent pattern of elevated health care spending and use relative to beneficiaries screened but not eligible for navigation. As demonstrated in the First Evaluation Report, more HRSNs were associated with higher baseline expenditure and use levels—a finding that updated analyses also confirmed (see **Exhibits M-3** and **M-30, Appendix M**). Recognizing that the AHC navigation-eligible population as a whole was an inherently higher-risk group, we examined whether the model had differing impacts on the following subpopulations that have historically faced barriers in accessing health care:

- Medicaid and FFS Medicare beneficiaries who are non-White and/or Hispanic, compared with those who are non-Hispanic White
- FFS Medicare beneficiaries who were dually eligible for Medicaid and Medicare, compared with FFS Medicare beneficiaries who were eligible for Medicare only

- Medicaid and FFS Medicare beneficiaries who reported more than one HRSN at screening, compared with those who reported a single HRSN
- Medicaid and FFS Medicare beneficiaries with disabilities, compared with those without disabilities
- Medicaid and FFS Medicare beneficiaries who lived in rural regions, compared with those who lived in urban regions

In addition, because of the importance of HRSN resolution for some chronic health conditions, and the potential effect of reducing HRSNs on stress and mental health, navigation may be more effective in changing health care expenditure and quality of care outcomes for beneficiaries with some chronic and behavioral health conditions than others. As such, we also examined whether the model had differing impacts on the following subpopulations with chronic physical and behavioral health illness:

- Medicaid and FFS Medicare beneficiaries with pulmonary disease
- Medicaid and FFS Medicare beneficiaries with diabetes
- Medicaid and FFS Medicare beneficiaries with substance use disorder
- Medicaid and FFS Medicare beneficiaries with major depression

Both the Medicaid and FFS Medicare navigation-eligible populations included many beneficiaries from subpopulations that have historically faced barriers to accessing health care (**Exhibits 8-6** and **8-7** and **Exhibits M-8, M-17, M-35,** and **M-45** in **Appendix M**). Among Medicaid beneficiaries, for the Assistance Track and Alignment Track respectively, 48% and 54% of beneficiaries were non-White and/or Hispanic, about 18% and 21% had a disability, 16% and 12% lived in rural regions, and 56% and 62% had more than one HRSN. Among FFS Medicare beneficiaries, for the Assistance Track and Alignment Track respectively, 29% and 42% were non-White and/or Hispanic, 64% and 72% were dually eligible for Medicare and Medicaid, around 62% had a disability, 24% and 17% lived in rural regions, and 48% and 55% had more than one HRSN. Disease prevalence varied by payer—chronic physical health conditions were more prevalent among FFS Medicare beneficiaries, whereas behavioral health conditions were more prevalent in the Medicaid population. For Medicaid beneficiaries, for the Assistance Track and Alignment Track respectively, around 21% and 23% had pulmonary disease, around 11% and 13% had diabetes, around 19% and 27% had a substance use disorder, and around 24% and 30% had major depression. Among FFS Medicare beneficiaries, for the Assistance Track and Alignment Track respectively, around 39% and 41% had pulmonary disease, around 39% had diabetes in both tracks, around 6% and 8% had a substance use disorder, and around 16% and 17% had major depression.

The Assistance Track subpopulation analyses modified the general impact analysis approach described above by testing for differences by subpopulation in regression-adjusted means between the intervention and control groups. To test whether the impacts differed for subpopulations, we tested whether the difference in means within each subpopulation was statistically significantly different. We report the differences in regression-adjusted means between the intervention and control groups for each subpopulation (for example, differences in means for Assistance Track and control group beneficiaries with diabetes and for Assistance Track and control group beneficiaries without diabetes). We also report the statistical test for the equality of the difference in means for the subpopulations (in other words, the difference in AHC Model impacts between subpopulations). For the Alignment Track subpopulation analyses, we used a triple difference model in which the subpopulation indicator was interacted 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. We summarize results for total expenditures, ED visits, avoidable ED visits, inpatient admissions, and unplanned readmissions for select subpopulations below. Additional results and details for all subpopulations are in **Appendix M** (see **Exhibits M-9** through **M-25** and **Exhibits M-36** through **M-54**).

The results suggest the AHC Model may have affected some subpopulations more favorably. First, Medicaid beneficiaries in the Assistance Track with major depression experienced more-pronounced impacts than those without major depression, as did beneficiaries with multiple HRSNs relative to beneficiaries with one HRSN. Second, for the Assistance Track in the FFS Medicare population, non-White and/or Hispanic FFS Medicare beneficiaries experienced more-pronounced impacts than non-Hispanic White FFS Medicare beneficiaries. In both tracks, impacts also were more pronounced for FFS Medicare beneficiaries with pulmonary disease and diabetes than for beneficiaries without either disease. Despite these promising findings, we did not always find consistent evidence for other subpopulations of differences in impacts across outcomes. There was also little consistency across the Assistance and Alignment Tracks in whether and how impacts differed.

Impacts in the Assistance Track Were Stronger for Medicaid Beneficiaries with Multiple HRSNs (vs. 1 HRSN) and for Those with Major Depression (vs. Without)

Exhibit 8-6 shows that, ***relative to Medicaid beneficiaries with one HRSN, beneficiaries with multiple HRSNs had more improvements in most quality of care outcomes related to hospital use***. Beneficiaries in the intervention group with multiple HRSNs had fewer ED visits ($p < 0.01$), avoidable ED visits ($p= 0.03$), and inpatient admissions ($p < 0.01$) than beneficiaries with multiple HRSNs in the control group. In contrast, beneficiaries in the intervention group with one HRSN had more of each of these outcomes than beneficiaries with one HRSN in the control group. The impact on unplanned readmissions also differed for beneficiaries with multiple HRSNs versus those with one HRSN. However, contrary to other outcomes, unplanned readmissions fell more among Medicaid beneficiaries with one HRSN than among Medicaid beneficiaries with multiple HRSNs. The impact on total Medicaid expenditures did not differ between beneficiaries with multiple HRSNs and those with one HRSN.

Relative to Medicaid beneficiaries without major depression, beneficiaries with major depression had improvements in most quality of care outcomes related to hospital use. Beneficiaries in the intervention group with major depression had fewer avoidable ED visits ($p = 0.05$), inpatient admissions ($p < 0.01$), and unplanned readmissions ($p = 0.01$) than beneficiaries with major depression in the control group. In contrast, beneficiaries in the intervention group without major depression had more avoidable ED visits ($p = 0.01$) than beneficiaries without major depression in the control group. Additionally, there was no difference in inpatient admissions or unplanned admissions between the intervention and control groups for beneficiaries without major depression. The impact on total Medicaid expenditures also differed between beneficiaries with major depression and those without major depression. However, contrary to the quality of care outcomes, we found that beneficiaries in the intervention group without major depression had lower expenditures ($p < 0.01$) than beneficiaries without major depression in the control group, whereas beneficiaries in the intervention group with major depression had higher expenditures ($p = 0.03$) than beneficiaries with major depression in the control group. The impact on ED visits did not differ between beneficiaries with and without major depression.

Other subpopulation-specific impact comparisons for Medicaid beneficiaries were more mixed. Full subpopulation-specific impact comparisons for Medicaid beneficiaries are available in **Exhibits M-9** to **M-16** in **Appendix M**.

Exhibit 8-6. Differences in Impacts for Subpopulations Within the Medicaid Assistance Track Population

Assistance Track Medicaid beneficiaries who had multiple HRSNs (vs. 1 HRSN) and those with major depression (vs. without) in the Assistance Track had improvements in quality of care in the first 3 years after screening.

Subpopulation		% of Assistance Track Intervention Group (n = 30,452)	$ Total Expenditures	ED Visits	Avoidable ED Visits	Inpatient Admissions	Unplanned Readmissions
Overall Impact for Assistance Track			↓	NS	NS	↓	NS
	Beneficiaries with multiple HRSNs	**56%**	↓	↓	↓	↓	NS
	Beneficiaries with one HRSN	**44%**	↓	↑	↑	↑	↓
Is there a statistically significant difference between subpopulations?			No	**Yes**	**Yes**	**Yes**	**Yes**
	Beneficiaries with major depression	**25%**	↑	NS	↓	↓	↓
	Beneficiaries without major depression	**75%**	↓	NS	↑	NS	NS
Is there a statistically significant difference between subpopulations?			**Yes**	No	**Yes**	**Yes**	**Yes**

↓ As expected, within the subpopulation, beneficiaries in the Assistance Track intervention group had statistically significantly lower expenditures or fewer visits or stays compared with beneficiaries in the control group at the $p < 0.10$ level.

↑ Contrary to expectations, within the subpopulation, beneficiaries in the Assistance Track intervention group had statistically significantly higher expenditures or more visits or stays compared with beneficiaries in the control group at the $p < 0.10$ level.

NS Within the subpopulation, beneficiaries in the Assistance Track intervention group had no statistically significant difference in use or expenditures compared with beneficiaries in the control group at the $p < 0.10$ level.

Between-group differences are indicated for all differences with a p-value less than 0.10.
Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.
Weight Variable: Number of months during the quarter the beneficiary was eligible for Medicaid divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Transformed Medicaid Statistical Information System Analytic Files (T-MSIS).
Time Frame: May 2018–December 2021. Definitions: ED = emergency department; HRSN = health-related social need.

Impacts in the Assistance Track Were Stronger for FFS Medicare Beneficiaries with Chronic Conditions (vs. Without) and for Non-White and/or Hispanic Beneficiaries (vs. Non-Hispanic White)

Exhibit 8-7 shows that, ***relative to non-Hispanic White FFS Medicare beneficiaries, non-White and/or Hispanic beneficiaries had greater reductions in total expenditures and all hospital use related quality outcomes***. Beneficiaries in the intervention group who were non-White and/or Hispanic had lower total expenditures and fewer ED visits, avoidable ED visits, inpatient admissions, and unplanned readmissions than non-White and/or Hispanic beneficiaries in the control group ($p < 0.01$ for all). In contrast, beneficiaries in the intervention group who were non-Hispanic White had more ED visits than non-Hispanic White beneficiaries in the control group ($p = 0.01$), but no statistically significant differences in the other outcomes.

Relative to FFS Medicare beneficiaries without pulmonary diseases, beneficiaries with pulmonary diseases had greater reductions in total expenditures and most hospital use–related quality outcomes. Beneficiaries in the intervention group with pulmonary diseases had lower expenditures ($p < 0.01$) and fewer ED visits ($p < 0.01$) and avoidable ED visits ($p < 0.01$) than beneficiaries with pulmonary diseases in the control group. In contrast, beneficiaries in the intervention group without pulmonary diseases had more ED visits ($p = 0.02$) than beneficiaries without pulmonary diseases in the control group. Additionally, there was no difference in total expenditures or avoidable ED visits between the intervention and control groups for beneficiaries without pulmonary diseases. The impact on inpatient admissions and unplanned readmissions did not differ between beneficiaries with pulmonary diseases and those without pulmonary diseases. Despite the lack of difference between beneficiaries with and without pulmonary diseases, beneficiaries with pulmonary diseases in the intervention group did have significantly fewer unplanned readmissions ($p = 0.07$) than beneficiaries with pulmonary diseases in the control group.

Relative to FFS Medicare beneficiaries without diabetes, beneficiaries with diabetes had greater reductions in total expenditures and all hospital use related quality outcomes. Beneficiaries in the intervention group with diabetes had lower expenditures ($p < 0.01$) and fewer ED visits ($p < 0.01$), avoidable ED visits ($p < 0.01$), inpatient admissions ($p < 0.01$), and unplanned readmissions ($p < 0.01$) than beneficiaries with diabetes in the control group. In contrast, beneficiaries in the intervention group without diabetes had more ED visits ($p < 0.01$) and inpatient admissions ($p = 0.01$) than beneficiaries without diabetes in the control group. Additionally, total expenditures, avoidable ED visits, inpatient admissions, or unplanned readmissions did not differ between the intervention and control groups for beneficiaries without diabetes.

Other subpopulation results for FFS Medicare were more mixed. The remaining subpopulations for the Assistance Track are in **Exhibit M-36 to M-44 in Appendix M**.

Exhibit 8-7. Differences in Impacts for Subpopulations Within the FFS Medicare Assistance Track Population

Non-White and/or Hispanic FFS Medicare Beneficiaries and beneficiaries with select chronic conditions in the Assistance Track experienced more-favorable impacts than their non-Hispanic White counterparts in the first 4 years post-screening.

Subpopulation		% of Assistance Track Intervention Group (n =10,517)	$ Total Expenditures	ED Visits	Avoidable ED Visits	Inpatient Admissions	Unplanned Readmissions
Overall Impact for Assistance Track			↓	↓	↓	NS	NS
	Non-White and/or Hispanic beneficiaries	**29%**	↓	↓	↓	↓	↓
	Non-Hispanic White beneficiaries	**71%**	NS	↑	NS	NS	NS
Is there a statistically significant difference between subpopulations?			**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
	Beneficiaries with pulmonary disease	**41%**	↓	↓	↓	NS	↓
	Beneficiaries without pulmonary disease	**59%**	NS	↑	NS	NS	NS
Is there a statistically significant difference between subpopulations?			**Yes**	**Yes**	**Yes**	No	No
	Beneficiaries with diabetes	**39%**	↓	↓	↓	↓	↓
	Beneficiaries without diabetes	**61%**	NS	↑	NS	↑	NS
Is there a statistically significant difference between subpopulations?			**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

↓ As expected, within the subpopulation, beneficiaries in the Assistance Track intervention group had statistically significantly lower expenditures or fewer visits or stays than beneficiaries in the control group at the $p < 0.10$ level.

↑ Contrary to expectations, within the subpopulation, beneficiaries in the Assistance Track intervention group had statistically significantly higher expenditures or more visits or stays than beneficiaries in the control group at the $p < 0.10$ level.

NS Within the subpopulation, beneficiaries in the Assistance Track intervention group had no statistically significant difference in use or expenditures from beneficiaries in the control group at the $p < 0.10$ level.

Note: Between-group differences in the exhibit have a p-value that is less than 0.10.

Methods: Weighted ordinary least squares estimated differences in total expenditures. Weighted Poisson estimated differences in inpatient admissions, ED visits, and avoidable ED visits. Weighted logistic estimated differences in unplanned readmissions.
Weight Variable: Number of months during the quarter the beneficiary was eligible for FFS Medicare divided by 3.
Source: RTI analysis of Chronic Conditions Warehouse Medicare claims.
Time Frame: May 2018–December 2022.
Definitions: ED = emergency department; FFS = fee-for-service.

Impacts Differed for Fewer Subpopulations in the Alignment Track Than in the Assistance Track

Although the AHC Model may have affected some subpopulations in favorable ways in the Assistance Track, the Alignment Track had fewer statistically significant differences and less consistency in the subpopulation results. Differences in methodologies may contribute to this; the Alignment Track uses a triple difference model to test for differences in impacts for subpopulations.[31]

Over the first 3 years after screening, among **Medicaid beneficiaries** in the Alignment Track, non-White and/or Hispanic beneficiaries had statistically significant smaller reductions in ED visits and avoidable ED visits than non-Hispanic White beneficiaries ($p = 0.03$ and $p < 0.01$, respectively). Beneficiaries in rural regions, in contrast, had a statistically significant larger reduction in avoidable ED visits than beneficiaries in urban regions ($p = 0.01$) (**Exhibits M-18 to M-25, Appendix M**). Beneficiaries with pulmonary disease also had a statistically significantly larger reduction in avoidable ED visits than those without pulmonary disease ($p = 0.04$). No other differences in total Medicaid expenditures or ED visits between subpopulation groups were statistically significant for the Alignment Track. However, a lack of statistical power may have made identifying differences in effects across Alignment Track subpopulations more difficult.

Similar to the Assistance Track population, **FFS Medicare beneficiaries** with pulmonary disease in the Alignment Track experienced more-pronounced favorable impacts on ED visits ($p = 0.10$), inpatient admissions ($p = 0.03$), and unplanned readmissions ($p = 0.07$) than beneficiaries without pulmonary disease in the comparison group. Beneficiaries with pulmonary disease represent 39% of the FFS Medicare Alignment Track population. FFS Medicare beneficiaries with diabetes in the Alignment Track also experienced more-pronounced favorable impacts on total expenditures ($p = 0.03$), inpatient admissions ($p = 0.02$), and unplanned readmissions ($p = 0.03$). Beneficiaries with diabetes represent 38% of the FFS Medicare Alignment Track population.

Conclusions

The AHC Model may have reduced expenditures, some quality of care outcomes related to hospital use, and some self-reported health measures.

Evidence that the AHC Model reduced total expenditures and quality of care is notable because, as reported in **Chapter 7:** Connections to CSPs and HRSN Resolution, there is no evidence that navigation through the model increased beneficiaries' connection with community service providers or resolution of their HRSNs. The AHC Model assumed that resolving beneficiaries' HRSNs through navigation to services would improve their health outcomes and reduce health care use. However, interviews with bridge organization leaders and other model participants suggested screening and navigation alone could directly affect use of health care services, independent of any HRSN resolution. Of all the outcomes, stakeholders were most optimistic that they would be able to affect ED use. Respondents reported that the screening and navigation process created trust between the navigator and beneficiary, which they built on to help patients better navigate the health care system broadly. Some stakeholders also mentioned providing practical assistance, such as transportation to appointments, that increased patients' compliance with their health care plans and appointments, thus reducing 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 HRSNs. Reductions in total expenditures and quality outcomes related to hospital use is also notable because it shows that

[31] The Assistance Track subpopulation analyses modified the general impact analysis approach by testing for differences in regression-adjusted means between the intervention and control groups separately by subpopulation. For the Alignment Track subpopulation analyses, we used a triple difference model in which the subpopulation indicator was interacted with indicators for each post-period quarter and an indicator for Alignment Track.

transforming health care delivery to incorporate a focus on HRSNs is not only feasible but may lead to improvements in health care outcomes.

The reductions in ED use for FFS Medicare beneficiaries are consistent with impacts for FFS Medicare beneficiaries reported in the Second Evaluation Report. However, the Second Evaluation Report also showed that Medicaid beneficiaries in the Assistance Track had reductions in ED use. This chapter showed that Assistance Track Medicaid beneficiaries had reduced ED use in the first year after screening. However, because the impact waned over time, there was no overall impact. The waning impact suggests that policies and interventions seeking to address HRSNs need to treat them as chronic conditions rather than an acute need that a one-time intervention can address.

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. We conducted a sensitivity analysis to assess the extent to which impact estimates changed when the sample was limited to only beneficiaries who opted in and received navigation services. The sensitivity analysis findings for the Assistance Track were similar to the overall findings for both payers, although the impacts were larger for the sample limited to those that opted in and received navigation. For the Alignment Track, similar to the main findings, there were no statistically significant differences for the FFS Medicare population that received navigation. Also similar to the main findings, reductions in inpatient admissions were statistically significant for Medicaid beneficiaries who opted in and received navigation in the Alignment Track. In addition, reductions in costs were statistically significant for Medicaid beneficiaries who received navigation. However, there were no statistically significant differences in ED use, perhaps because of a smaller sample size.

Moreover, because of inaccurate or missing data, we were not able to identify in the Medicare and Medicaid enrollment data 10% of the beneficiaries who were screened for HRSNs. 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. The data were more likely to be missing at random because of data entry or other errors, however, so the 90% who matched were likely representative of all Medicare and Medicaid beneficiaries.

There may be more-pronounced impacts for some groups of beneficiaries who have historically faced barriers to accessing health care. However, the evidence was not always consistent across outcomes or even payers for the same subpopulation. Furthermore, in some cases, impacts were more favorable for beneficiaries in subpopulations that have historically faced barriers to access than beneficiaries not in those subpopulations, whereas in other cases, impacts were less favorable. This could mean that HRSNs mediate outcomes for subpopulations in different ways. If that is the case, the AHC Model would not be expected to have the same impact on all subpopulations. There was also little consistency across the Assistance and Alignment Tracks in whether and how subpopulation impacts differed. This partly reflects lower statistical power to detect differences in the Alignment Track. As reported in the Second Evaluation Report, the most-consistent patterns were again more-favorable impacts on all or nearly all of the outcomes assessed for Assistance Track Medicaid beneficiaries with more than one HRSN and for Assistance Track FFS Medicare beneficiaries who are non-White and/or Hispanic.

AHC Model impacts also may be more pronounced for some subpopulations with chronic physical or behavioral health conditions. Among Medicaid beneficiaries in the Assistance Track, beneficiaries with major depression had larger reductions in avoidable ED visits and inpatient admissions than their counterparts without major depression. The trust created during the screening and navigation process may have particularly helped patients with major depression navigate the health care system. For example, navigators reported doing appointment reminders for beneficiaries with mental health issues. For FFS Medicare beneficiaries in both tracks, beneficiaries with pulmonary disease had more-favorable outcomes across all or nearly all the outcomes assessed. FFS Medicare beneficiaries in the Assistance Track with diabetes also had more-favorable outcomes. These findings are in line with prior findings that interventions to improve housing instability and food insecurity are associated with improved health outcomes for those with diabetes (Hill-Briggs et al., 2021). The findings are also in line with the findings in **Chapter**

6: Navigation that beneficiaries with diabetes were more likely than other beneficiaries to have their HRSN resolved.

Findings to date on model implementation do not shed light on what may be driving differential impacts on subpopulations. Impacts likely vary among bridge organizations. If groups that have historically faced barriers to access are more prevalent in some bridge organizations, this could contribute to differing impacts across subpopulations. Future analyses will examine contextual, organizational, and implementation factors that may be associated with more-favorable impacts for the AHC population overall. For example, bridge organizations with more ED clinical delivery sites may have chosen those partnerships because of better preexisting relationships with the EDs in their communities or may have developed stronger relationships with these EDs through their participation in the model. Either event could lead to a better ability to affect ED use. Screening setting could also be associated with the characteristics of a bridge organization's navigation-eligible population. Thus, understanding the factors associated with more-favorable impacts at a bridge organization level may also illuminate why and how impacts differ for some subpopulations.

Chapter 9: Lessons Learned

The Accountable Health Communities (AHC) Model was a unique opportunity to test the feasibility of implementing approaches to address health-related social needs (HRSNs) and better understand the resources and strategies needed to do so. Now that the AHC Model has ended, understanding model sustainability and communities' future plans to address HRSNs will help assess the long-term consequences of the AHC Model in communities.

Key Takeaways

- Bridge organizations implemented most of the CMS Innovation Center's AHC requirements. State Medicaid agency involvement was implemented the least frequently.

(continued)

In this chapter, we examine bridge organizations' overall fidelity to the AHC Model requirements to understand whether the original requirements were feasible for bridge organizations to implement. Fidelity may also be a prerequisite for achieving hypothesized model impacts. This chapter also examines the sustainability of the AHC Model using multiple data sources and analyses approaches. The chapter concludes by addressing drivers of sustainability and providing recommendations for entities that engage in similar HRSN initiatives.

Key Research Questions

- What types of supports must bridge organizations and clinical delivery sites (CDSs) receive in order to successfully implement the AHC Model?
    - What changes were implemented as a result of monitoring, learning and diffusion, and evaluation activities to improve implementation of the AHC Model?
    - Should these changes be considered for part of any model replications? What were the lessons learned?

This chapter presents findings from quantitative and qualitative data to address these research questions. Quantitative findings were based on the following sources:

1. Results from a survey of bridge organizations (April–June 2020) administered to all 29 bridge organizations as of October 2019
2. AHC program data on the completion of patient-centered action plans among beneficiaries who opted into navigation after April 30, 2020

Qualitative findings were based on the following sources:

1. Review of AHC sustainability plans and quarterly progress reports
2. Semi-structured interviews with three groups of AHC stakeholders:
    - Bridge organizations active at the time of data collection (January–April 2022)
    - CSPs providing services to beneficiaries served by the AHC Model (January–April 2020, September–November 2021)
    - Beneficiaries served by the AHC Model (July–September 2020, February–April 2022)
3. Review of program documents including health resource equity statements and standard operating procedures for AHC screening and referrals submitted in 2021

See **Appendixes F, J,** and **O** for additional details on the methods for the analysis reported here.

Key Takeaways (continued)

- Nearly all AHC Model leaders expected to sustain AHC Model activities after the model ended, and about half of the bridge organizations demonstrated significant progress in doing so.
- Involvement in the Alignment Track, having few staff turnover challenges, and participation in other value-based initiatives were associated with a high likelihood of sustainability.
- AHC Model stakeholders regarded screening and navigation, referrals to community service providers (CSPs), data collection and sharing, and partner relationships as critical AHC features to sustain.
- AHC Model stakeholders indicated that funding and staffing for screening and navigation, activities to sustain partner relationships, state support to enact HRSN policies, and evidence of model effectiveness would help them successfully sustain the AHC Model.
- AHC Model stakeholders recommended that future efforts to address HRSNs include dedicated funding for CSPs.
- Stakeholders also suggested that future efforts be more inclusive of other needs, allow alternative screening tools, prioritize beneficiaries by the acuity of their needs, address comorbid needs, and integrate and use both clinical and community data.

Most Bridge Organizations Maintained Fidelity to AHC Model Requirements

Fidelity is the extent to which those who implement an intervention do so as intended by the intervention's creators (Dusenbury et al. 2003; Rabin et al. 2008). It is important to measure fidelity for the AHC evaluation because model impacts on health outcomes, utilization, and spending may not be attributable to AHC unless the model was implemented as designed. High fidelity could also imply that the AHC Model is feasible for a variety of organizations and across different kinds of communities, which could support efforts to sustain and adopt features of the model.

The AHC evaluation team developed an initial list of criteria to assess model fidelity using the funding opportunity announcement that bridge organizations responded to when applying to participate in the AHC Model. We subsequently refined the criteria using Innovation Center feedback and available data. We evaluated all bridge organizations in both tracks (n = 28) on six criteria. We evaluated four additional criteria for the Alignment Track, which included requirements that only pertained to that track (n = 18). **Exhibit 9-1** lists the criteria and the tracks to which the criteria apply.

Exhibit 9-1. Fidelity Assessment Criteria

Bridge organizations' fidelity to AHC Model requirements was assessed using 10 criteria.

Criteria Assessed for Both Tracks (n = 28)	Criteria Assessed for Alignment Track Only (n = 18)
• Bridge organizations developed a health resource equity statement documenting their strategy for addressing health equity in model implementation and outcomes. • Bridge organizations and their partners established processes for exchanging screening and navigation data on AHC beneficiaries. • Bridge organizations and their partners used a comprehensive CRI with information on CSPs that may help address beneficiaries' HRSNs. • All beneficiaries received a CRS tailored to their HRSNs. • The state Medicaid agency was involved in AHC Model implementation. • Navigators worked with all beneficiaries to develop patient-centered action plans for unmet HRSNs.	• Bridge organizations formed an advisory board that included representatives from the state Medicaid agency, local government(s), CDSs, CSPs, local payers and clinicians, beneficiaries, and their caregivers. • Advisory boards met at least quarterly. • Advisory boards assessed and prioritized beneficiary and community needs. • Bridge organizations and their partners used a robust quality improvement plan to incorporate best practices to address gaps in community resources.

Source: AHC Model Fidelity Assessment; see **Appendix I** for details.
Definitions: CDS = clinical delivery sites; CRI = community resource inventory; CRS = community referral summaries; CSP = community service providers; HRSN = health-related social needs

Each criterion had specific scoring rules based on available data from stakeholder interviews, program documents, surveys of bridge organization staff and advisory board members, and AHC program data. High fidelity scores suggest that bridge organizations implemented the AHC Model as required, whereas low fidelity scores suggest that bridge organizations may not have met model requirements fully. See **Appendix I** for more detail on how we

developed and scored the criteria and the limitations of our approach. This is the first AHC evaluation report in which the fidelity assessment findings appear.

Exhibit 9-2 shows results from the fidelity assessment for the six criteria that applied to both the Assistance and Alignment Tracks. Overall, findings suggest that most bridge organizations implemented the AHC Model requirements as intended by CMS.

Exhibit 9-2. Assistance and Alignment Track Fidelity Assessment Findings (N=28)

Most bridge organizations implemented the AHC Model requirements as intended by CMS.

Fidelity Criteria	Number of Bridge Organizations With Highest Fidelity Score for Each Fidelity Criterion
Developed an HRES Used a comprehensive CRI Distributed tailored CRS Exchanged screening and navigation data	24 or more
Developed patient-centered action plans	14
Involved state Medicaid agency	7 (1 Assistance Track, 6 Alignment Track)

Source: AHC Model Fidelity Assessment; see **Appendix I** for details.
Definitions: CRI = community resource inventory; CRS = community referral summary; HRES = health resource equity statement.
Note: Bridge organizations were expected to meet all the fidelity criteria in this graphic. Accordingly, the number of bridge organizations in the second column should not sum to 28 across rows. Because of missing data, between 25 and 28 bridge organizations could be evaluated for each criterion shown. Results are shown by track for only the final criterion because we did not observe significant differences in fidelity by track for the other criteria.

At least 24 bridge organizations received the highest fidelity score possible for four of the six criteria:

1. Bridge organizations developed a health resource equity statement (HRES).
2. Bridge organizations and their partners used a comprehensive community resource inventory (CRI).
3. All beneficiaries received community referral summaries tailored to focus on their HRSNs.
4. Bridge organizations and their partners established processes for exchanging screening and navigation data on AHC beneficiaries.

This could reflect that these model requirements were manageable to meet, that CMS effectively held bridge organizations accountable to requirements, that the evaluation team did not have sufficient data to distinguish among bridge organizations with variable fidelity, or a combination of these factors.

Half of the bridge organizations received the highest fidelity score possible for the model requirement to develop patient-centered action plans to address beneficiaries' unmet needs. Only four bridge organizations received the lowest fidelity assessment score for this criterion. As described in **Chapter 6:** Navigation, AHC Model stakeholders

felt that the action planning process was helpful for tailoring navigation services to beneficiaries' needs and preferences.

Just seven bridge organizations met the criterion that state Medicaid agencies be highly involved in AHC Model implementation. For this criterion only, we observed track-level differences in fidelity. More Alignment Track bridge organizations demonstrated high fidelity (n = 6) than Assistance Track bridge organizations (n = 1). The following vignette provides more-detailed information about state Medicaid involvement in AHC Model implementation.

Medicaid's Varied Role in the AHC Model

Medicaid involvement was a requirement of the AHC Model; however, as the fidelity assessment findings indicate, Medicaid's involvement in the model varied greatly.

Some bridge organizations viewed their state Medicaid agency as a key partner that supported their AHC efforts by attending advisory board and other AHC-related meetings. In fact, more than half of the bridge organizations (16) reported having a memorandum of understanding, memorandum of agreement, cooperative agreement, or equivalent agreement with their state Medicaid agency.

Furthermore, surveys from staff at two bridge organizations suggest that their state Medicaid agencies referred beneficiaries for services and resources. Staff at three bridge organizations reported that their state Medicaid agencies provided technical assistance to the bridge organization.

In other instances, Medicaid worked closely with bridge organizations to assess, monitor, and address beneficiaries' social needs. Staff at five bridge organizations (17%) indicated that their state Medicaid agency participated in quality improvement (QI) activities. One bridge organization leader summarized this role: "[The Medicaid agency is] really interested in our data and information. Our Medicaid program is looking to improve how our Medicaid system and [our care organization] has addressed social need. Our staff had been working with them on developing metrics on how to measure social need … I would say [we work] very closely with our Medicaid agency."

Other bridge organizations' state Medicaid agencies supported AHC efforts by including HRSN and social determinant of health (SDOH) requirements in managed care organization (MCO) contracts. Some agencies built on previously implemented health reforms such as CMS' State Innovation Models Initiative and accountable care organizations (ACOs). A few states even described policies such as Medicaid expansion and MCO policies as a catalyst for their involvement in SDOH- and HRSN-focused programs such as AHC.

In contrast, other state Medicaid agencies had more-limited roles in AHC. In these states, bridge organizations described their Medicaid agencies as offering more-limited support because of staff turnover or hesitation on the part of Medicaid leadership about involvement in SDOH.

Chapter 4: Implementation of Alignment provides a detailed accounting of fidelity to Alignment Track requirements (n = 18). Fidelity was generally lower for Alignment Track requirements than for criteria applying to both tracks (**Exhibit 4-1**). Most Alignment Track bridge organizations met the requirement to convene an AHC advisory board at least quarterly. Fewer than half, however, formed an advisory board with representatives from all required categories, assessed and prioritized beneficiary and community needs, or developed robust QI plans to address gaps in community services. **Chapter 4:** Implementation of Alignment identifies the challenges bridge organizations and their partners faced with respect to Alignment Track requirements. These included engaging beneficiaries in alignment activities and obtaining data needed to understand local needs. We explore the implications of the fidelity assessment findings for model sustainability and scaling in subsequent sections of this chapter.

Nearly All AHC Model Leaders Anticipated Sustaining AHC Model Activities

Much like bridge organizations' fidelity to AHC Model requirements, bridge organizations' sustainment of AHC activities following the model period could suggest that AHC-like approaches to addressing HRSNs are feasible for widespread adoption. The AHC evaluation team assessed the sustainability of the AHC Model using several approaches. First, we analyzed a bridge organization survey item that asked about the likelihood of continuing AHC work. Second, we developed sustainability scores to reflect bridge organizations' demonstrated progress toward sustaining AHC Model activities. Third, we identified different pathways bridge organizations used to achieve sustainability. Finally, we used interviews with AHC leaders to identify critical AHC features to sustain and drivers of AHC Model sustainability.

In their responses to the 2020 bridge organization survey, nearly all bridge organizations (27 of 29 respondents) expressed some likelihood that they would continue their AHC work after their funding ended. Almost a quarter of bridge organizations (7) indicated that continuing their AHC work after their funding ended was very likely. Only two bridge organizations indicated that they were unlikely to continue their AHC work after their funding ended.

Bridge Organizations Used Five "Drivers" to Sustain AHC Model Activities

After bridge organizations completed the 2020 survey, the evaluation team reviewed bridge organizations' AHC sustainability plans and quarterly progress reports to develop a more objective measure of progress toward sustaining the AHC Model. This measure captured specific activities ("drivers") that bridge organizations could engage in to achieve sustainability and for which they received technical assistance, as reflected in **Exhibit 9-3**.

Exhibit 9-3. Components of the AHC Model Sustainability Measure

Bridge organizations' progress toward sustaining the AHC Model was evaluated with respect to five drivers: data collection and use, systems capacity, strategic partnerships, health system transformation and financing, and communications and advocacy.

Sustainability Driver	Evidence of Sustainability
Data collection and use	• Bridge organizations implemented electronic platforms for sharing HRSN data within and across health systems and between health systems and community service providers. • Bridge organizations used data to improve implementation, achieve equity, and demonstrate importance. • Community partners used data to support their missions.
Systems capacity	• Workflows were adopted for encouraging efficiency, timeliness, and consistency across CDSs, screeners, and navigators. • A capable workforce was ready to provide planned services. • AHC was well-integrated into the organization's operations. • Team members, including high-level organizational leaders, supported AHC. • Community partners developed similar levels of systems capacity.
Strategic partnerships	• Key stakeholders championed AHC. • Bridge organizations developed strong partnerships with community service providers. • Community members and leaders worked to develop a more aligned health and community service system.
Health system transformation and financing	• AHC activities were funded through a variety of sources. • The health system shared financial responsibility for the work. • ACOs and MCOs shared financial risk and return on investment for the cost of the work. • The health system optimized existing flexible payment options for Medicare and Medicaid, such as state Medicaid pay-for-quality funding that was earmarked for decreasing health disparities associated with social determinants of health. • Medicaid agencies leveraged state waivers and other transformation activities to change payment and policies for HRSNs, such as participating in a statewide hospital transformation project issued payments to hospitals for screening Medicaid beneficiaries for HRSNs. • The health system identified and implemented braided, blended, or coordinated funding streams, such as funding from local and state government and grants to sustain and expand AHC navigation services to relevant locations and patient populations.

(continued)

Exhibit 9-3. Components of the AHC Model Sustainability Measure (continued)

Sustainability Driver	Evidence of Sustainability
Communications and advocacy	• Staff could articulate the value of AHC. • Bridge organizations marketed AHC to generate interest among key stakeholders. • The broader community had a voice in communication and advocacy. • Communication strategies focused on public support were in place.

Definitions: ACO = accountable care organization; CDS = clinical delivery site; HRSN = health-related social need; MCO = managed care organization.

For each bridge organization, implementation of each sustainability driver was coded as one of four categories based on evidence of sustainability through the end of the model period:

- None (value = 0): no evidence that the driver was planned, in progress, or executed
- Planned (value = 1): work on the driver had not yet begun
- In progress (value = 2): work on the driver had begun but had not been finished
- Executed (value = 3): the driver was fully implemented

We summed bridge organizations' scores for each driver to create a possible aggregated sustainability score that could range between 0 and 15. The bridge organizations' actual scores were normally distributed across the bridge organizations; scores ranged from 1 to 11. Among the 28 bridge organizations, 15 scored as having a high likelihood of sustainability.

Four Unique Pathways Lead To a High Likelihood of Sustainability

The sustainability scores revealed which bridge organizations were most likely to achieve sustainability and through what activities. However, the score itself does little to explain why some bridge organizations and communities may have had a greater likelihood of sustaining model activities than others. To gain this understanding, the evaluation team used qualitative comparative analysis (QCA) to examine combinations of bridge organization and community characteristics associated with high sustainability scores. We refer to these combinations as "pathways," because there are multiple ways that bridge organizations and their partners achieved a greater likelihood of sustainability, and these may serve as roadmaps for other organizations seeking to implement AHC-like interventions. Although these pathways are based on associations within the AHC evaluation data, we cannot assert that these pathways are causal. A detailed description of QCA, the methods used to develop the sustainability QCA model, and the analysis appears in **Appendix J.**

Overview of Sustainability Analysis

The evaluation team reviewed previous evaluation report findings and the AHC Model theory of change to identify bridge organization and community characteristics ("conditions") that may affect sustainability—whether by their presence or by their absence. We then used QCA to identify how these conditions, in isolation or combination, related to high sustainability scores. **Exhibit 9-4** lists the measures we included in the sustainability QCA and the associated data sources.

Exhibit 9-4. Definitions and Data Sources for the Outcome and Conditions Examined in Sustainability Model

We identified combinations of bridge organization and community characteristics associated with a high likelihood of sustaining AHC Model activities.

Conditions	Definition	Data Source(s)
Outcome: High sustainability score	Combined sustainability score composed of five drivers (refer to **Exhibit 9-3** for additional information)	Review and coding of AHC sustainability plans, AHC progress reports
Condition: Alignment Track	Whether a bridge organization was in the Alignment Track	Bridge organization survey
Condition: Less staff turnover	The extent that staff turnover challenged the bridge organization's ability to fully staff the AHC project	Bridge organization survey
Condition: Participation in other value-based initiatives	The extent that the bridge organization's CDSs participated in other value-based initiatives	Bridge organization survey
Condition: Clinical bridge organization	Whether bridge organizations were hospitals, health systems, or integrated delivery systems that provide clinical services	Bridge organization survey
Condition: High unique screened	The number of unique beneficiaries screened for HRSNs by a bridge organization	AHC screening and navigation data
Condition: Larger number of patients served	The approximate number of patients served annually by a bridge organization	Bridge organization survey
Condition: High CSP connection/HRSN resolution	The percentage of a bridge organization's beneficiaries with a closed navigation case who were connected to a CSP for at least 1 HRSN or had at least 1 HRSN resolved	AHC screening and navigation data
Condition: Many unpaid screeners	The percentage of the people who did screenings ("screeners") who are in unpaid roles (for example, students, interns, volunteers) for a bridge organization	Bridge organization survey

Definitions: CDS = clinical delivery site; CSP = community service provider; HRSN = health-related social need.

Pathways for a High Likelihood of Sustainability

Among the 28 bridge organizations, 15 had high sustainability scores. The remaining 13 had scores indicating a lower likelihood of sustaining the AHC Model. Using the QCA model, we did not identify any characteristics that were needed for bridge organizations to achieve a high sustainability score. However, the QCA model did identify four pathways as *sufficient*, meaning that although no pathway conditions were required to achieve a high sustainability score, there are combinations of conditions commonly associated with high scores. **Exhibit 9-5** displays the four pathways. See **Appendix J** for additional model diagnostic information.

Exhibit 9-5. Four Pathways of Conditions Commonly Associated with High Sustainability Scores

Bridge organizations achieved a high likelihood of sustaining AHC Model activities using four pathways.

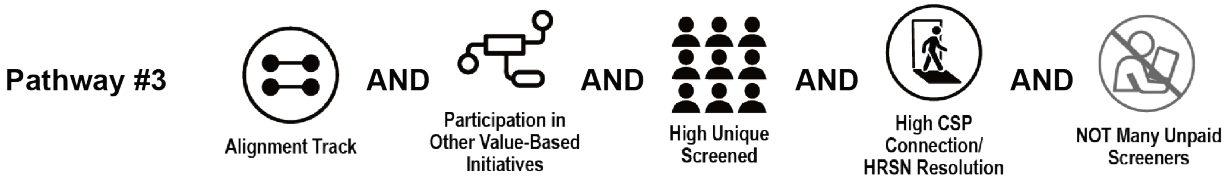
Pathways for High Sustainability Scores								
	Conditions							
Pathways	Alignment Track	Less Staff Turnover	Participation in Other Value-Based Initiatives	Clinical Bridge Organization	High Unique Screened	Large Number of Patients Served	High CSP Connection/ HRSN Resolution	Many Unpaid Screeners
1	✓	✓	N/A	✓	N/A	✓	N/A	N/A
2	✓	✓	✓	N/A	N/A	N/A	✗	N/A
3	✓	N/A	✓	N/A	✓	N/A	✓	✗
4	N/A	✓	✓	✓	✓	✓	N/A	N/A

Green checkmarks [✓] indicate the presence of a condition, and red *x* marks [✗] indicate its absence. N/A indicates that the condition was not associated with a given pathway.
Definitions: CSP = community service provider; HRSN = health-related social need.
Please refer to **Appendix J, Qualitative Comparative Analysis (QCA) Methods,** for additional detail on the development and validation of the QCA models, including methods for assessing the strength of the pathway relationships with the outcome (consistency) and the relevance of the pathway relationships and the outcome (coverage).

Three characteristics appear in three of the four pathways: involvement in the Alignment Track, having few staff turnover challenges, and participation in other value-based initiatives. Reviewing case-level data on bridge organizations associated with each pathway helps to explain why and how the conditions mattered. Although each pathway contains multiple conditions, the subsequent vignettes focus on the qualitative evidence that most strongly demonstrates how and why the conditions mattered.

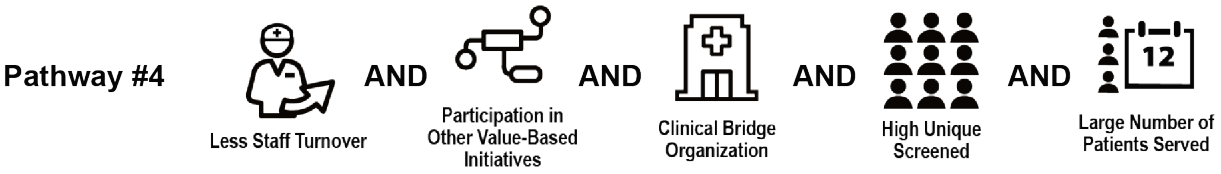
The first pathway accounted for four of the 15 bridge organizations that achieved high sustainability scores. One of the bridge organizations in this pathway is a hospital in a larger health system that had grant funding to screen beneficiaries for SDOH before the AHC Model. This screening process was well-established, so when AHC began, the bridge organization was able to screen high numbers of beneficiaries at its CDSs. In addition, because of its previous funding, the bridge organization had existing relationships with CSPs that it could leverage to meet requirements for the AHC Alignment Track. The bridge organization's director and data specialist remained at the organization throughout the AHC Model, demonstrating these staff members' strong commitment to and continuity of their efforts, which also aligned with the bridge organization's mission. In combination, these factors positioned the bridge organization to sustain AHC Model activities after the model period.

The second pathway accounted for five of the 15 bridge organizations that achieved high sustainability scores. Bridge organizations that experienced less staff turnover and who had participated in other value-based initiatives were more likely to be able to continue addressing SDOHs after the AHC Model ended. One such bridge organization is a regional health hub, and having more stable staffing and past participation in value-based initiatives allowed them to effectively convene partners to work together as part of the AHC Model Alignment Track. Despite not having achieved high rates of connection to CSPs or HRSN resolution among model beneficiaries, this bridge organization was able to continue addressing SDOHs after the AHC Model ended through sustained model leadership and by leveraging these existing partnerships and other funding.



The third pathway accounted for the fewest number of bridge organizations that achieved high sustainability scores, with three bridge organizations. One of these bridge organizations used AHC funds to employ joint screeners and navigators who worked with existing screeners and non-AHC case managers and care coordinators at CDSs. Because AHC staff had multiple functions and collaborated with permanent CDS employees, this bridge organization was better positioned to sustain screening and navigation services than bridge organizations that had hired large percentages of unpaid screeners requiring continuous coordination and support. Furthermore, the

bridge organization obtained legal permission to conduct beneficiary screening and navigation by email, which led to high rates of screening and efficiencies that may have increased the likelihood of connecting beneficiaries to CSPs for HRSN resolution. These benefits of the bridge organization's screening and navigation approaches, combined with its preexisting funding streams and established partnerships with local community-based organizations to address SDOH, allowed the bridge organization to achieve a high likelihood of AHC Model sustainability.



The fourth pathway accounted for the most bridge organizations who achieved high sustainability scores, with six bridge organizations. One of these bridge organizations involved all departments in their clinical network in AHC Model implementation, which provided access to a large number of beneficiaries who could be screened. The bridge organization then worked with the departments to incorporate screening as part of the initial patient check-in, which resulted in a high number of unique beneficiaries screened and laid the foundation for sustaining screening as a routine part of patient care. This bridge organization also effectively retained AHC Model screeners, navigators, and administrative staff by offering them career advancement through internal promotions, delivering staff trainings and mentorship, and engaging them in morning huddles that fostered staff collaboration and boosted morale. These factors collectively contributed to a high likelihood of sustaining AHC Model activities.

Screening and Navigation, Referrals to Community Services, Data Collection and Sharing, and Partner Relationships Are Critical AHC Features to Sustain

The previous sections of this chapter address AHC leaders' perceived likelihood of AHC Model sustainability, evidence of AHC Model sustainability, and the pathways bridge organizations used to achieve a high likelihood of sustainability. This section expands on those findings by presenting AHC stakeholders' insights regarding which features of the AHC Model they regarded as most critical to sustain and how they would do so. These insights were drawn from semi-structured interviews with AHC leaders, CDS leaders, clinicians, CSP staff, screeners, and navigators, all conducted in 2022.

Bridge organizations identified screening and navigating beneficiaries as critical components of the AHC Model. Most interview participants expressed a strong desire to continue both screening and navigation. Some AHC leaders who planned to continue screening and offering navigation also indicated that these components might look different after the AHC Model ends.

For example, with respect to screening, some bridge organizations planned to continue screening, but use different screening tools or processes. In other cases, bridge organizations planned to adopt alternative screening methods that were cheaper and more efficient. For example, one interview participant said that their bridge organization would continue screening at CDSs but would use a hybrid approach of telephonic and in-person screening to reduce costs. Other bridge organizations shared efforts to leverage technology, such as mobile devices, to screen individuals more efficiently in community settings and not just clinical sites.

> "We're having a lot of groups working to try to incorporate this screening into our workflows so that the office staff sees screening as part of what they do in the normal intake of patients."
>
> — Bridge Organization Leader

Interview participants also intended to sustain navigation. Participants from many bridge organizations even emphasized the opportunity to better provide "whole-person" care by increasing the volume, intensity, and duration of navigation services offered through the AHC Model. However, model participants said that to sustain even the lighter-touch navigation offered during the model period, they would need additional staffing and funding.

CSPs intended to continue accepting referrals from bridge organizations. Most CSPs interviewed were aware that their organizations received referrals through the AHC Model and reported that they planned to continue accepting referrals from bridge organizations after the model period. Furthermore, CSPs indicated that individuals who were referred from AHC were treated no differently than those referred from other organizations or programs. As discussed in **Chapter 3:** Community Capacity to Address HRSNs, most CSPs interviewed or surveyed were not able to distinguish AHC Model participants or did not track where their referrals originated. Thus, because they could not distinguish AHC patients from other clients, CSPs supported sustainability simply by continuing to operate as usual.

> "We will continue obviously receiving referrals. It's what we do. It's our mission, of service."
>
> — CSP Staff Member

Bridge organizations and CDSs will likely continue collecting data, using electronic screening approaches, and sharing information with partners. Many interview participants from bridge organizations and CDSs described working to adopt the screening tool, integrate it into health system workflows, and share data with partners. For these organizations, the data collection and, in some cases, data sharing are critical AHC components, and they will sustain them. Furthermore, the AHC Model required some participants to invest considerable time and effort into adapting the screening tool and integrating it into their workflows. With AHC ending, removing the screening tool from this workflow would take additional time and effort, so keeping it in place and intact is an economical, sustainable approach. Even when sustaining data collection and information sharing is the most economical approach, however, these processes require resources that numerous interview participants outlined as critical. For example, one bridge organization is working with their state health information exchange to leverage funds to facilitate data sharing across AHC partners and sustain screening activities. Another bridge organization is working with its MCOs to obtain funding to continue screening using mobile devices.

> "I think that in order to really continue this AHC work, and there are active conversations in our community about a centralized community integrated health network that would have [to] include a technology that could pull referral information from an EMR [electronic medical record], transfer it to us as a bridge organization, and then do that communication with the community service providers electronically and more seamlessly, which would certainly increase efficiency and would allow us to scale up."
>
> — Bridge Organization Leader

Bridge organizations intended to continue partner relationships after the AHC Model ended. Bridge organization staff viewed partner relationships as essential for sustaining the AHC Model. Many bridge organizations and CDSs highlighted the importance of relationships among health systems and other partners to ensure collaboration and communication continues.

> "I'll give you a great example of … how I think it will continue, even if and when this ends. We now have a very strong partnership with [a CDS]. … We've done two on-site food distribution days ... and every single bit of [the partnership] has been driven to get food to people and get them signed up for SNAP or for CHIP, or whatever that looks like. ... And these events, we've been serving probably an average of between 400 and 500 individuals and families each time in about a 2- to 3-hour period. That would never happen if it wasn't for this program. And I do see that continuing in some way, even if this goes away."
>
> — CSP interview participant

A few CSPs shared this perspective. They discussed how the AHC Model helped establish relationships and communication methods between the bridge organization and other organizations that will continue to evolve beyond the AHC Model.

Funding and Staffing for Screening and Navigation, Activities to Sustain Partner Relationships, State Support to Enact HRSN Policies, and Evidence of Model Effectiveness Would Help Sustain AHC Model Activities

In addition to sharing the AHC Model features that they saw as important to sustainability, AHC Model participants identified the resources and conditions needed to sustain the model components.

Funding for screening and navigation was seen as a linchpin for sustainability. Recognizing the critical role of funding for sustaining AHC efforts, many bridge organizations reached out to or were approached by health plans wanting to continue these efforts. When funding was uncertain, some bridge organizations started having conversations about integrating their AHC efforts into existing programs.

> "Our intention is very much to continue this AHC work, regardless of whether there's expanded funding. Now it might look different. It's going to obviously have to be funded differently unless there's some extension of the funding through CMS, but we are actively working on that."
>
> — Bridge Organization Leader

To support hospitals and CDSs, a few interview respondents advocated for the creation of incentives or billing codes for the work. Several interview participants indicated that CDSs needed funding to continue screening, navigation, and other model activities (for example, training, supervision, data management), but model activities are not typically reimbursable. Even though reimbursement and payment models were not in place for all CDSs' screening efforts, some bridge organizations were working with health plans to provide either incentives or even payments to CDSs through billing codes to pay screening staff.

In some cases, the health plan reimbursement for bridge organizations and CDSs' screening and referral services was tied to value-based purchasing arrangements. Only a few bridge organizations described a current link between AHC and value-based purchasing. In some instances, MCOs' value-based payments were linked to population health measures, such as obesity or other chronic conditions, and care quality. These population health measures are often affected and even driven by HRSNs. For example, without consistent access to healthy food, individuals often experience obesity or malnutrition. Thus, through value-based arrangements, MCOs encouraged clinicians to address or identify patient outcomes that are rooted in HRSNs. As a result, clinicians have begun working on addressing some HRSNs.

> "It's part of [MCOs] agreement, their contract with us. It's been in there for probably at least two years more definitively, but has kind of always been in there, but there's been more attention called to it in the last … 2 to 3 years. Having requirements for them to do screenings, working with community-based organizations, working with the patient-centered medical homes."
>
> — Medicaid Agency

Staff members' ability to continue screening and navigation was crucial to sustainability. Some bridge organizations reported that community health workers and navigators were crucial to success at continuing screening and navigation. Finding, retaining, and funding these staff was the primary reported barrier to sustainability for some bridge organizations. Some bridge organizations reported plans to integrate screening and navigation into existing workflows or new roles (for example, case managers, medical assistants), whereas others reported that this was not feasible and that additional staff members would be needed. Others planned alternatives such as using medical residents or college interns to conduct screenings. A few bridge organizations

added that staff members specifically for technical assistance or oversight and counselors/educators would be needed for successful sustainability post-AHC.

Efforts to engage partners were also an important driver of sustainability. Bridge organization staff members indicated that resources and funding to continue to support partnerships after AHC ended were key for sustainability. CDS engagement required that bridge organizations provide sustained education about the goals of the model and ongoing communication on why addressing patients' HRSNs was important. For example, addressing HRSNs in health care settings requires a cultural change in CDSs, which the AHC Model helped facilitate. Clinical staff members may not initially think of HRSNs as within the purview of health care. CSPs highlighted that communication and community education helped them foster and sustain their efforts and their relationships with bridge organizations. To sustain or encourage adoption of AHC Model features after it ends, bridge organizations will need to deploy staff members to introduce the model to new partners and engage staff members within established partner organizations. This will ensure partners appreciate the value of addressing HRSNs and understand their role in supporting it. In addition, staff at established partner organizations will need ongoing education to reinforce the goals behind addressing HRSNs and share approaches for doing so.

State HRSN policies had a role in sustaining HRSN-focused approaches. State Medicaid staff members were asked whether there were any HRSN policies in their state. Most Medicaid staff indicated that having such policies would be beneficial; however, only a few states have policymaker support for HRSN-related initiatives. Even in states where there is policymaker support, there may not be policies that can support the provision of screening for HRSNs. Most Medicaid staff members said that policymakers in their state were not interested in HRSN-focused policies. Staff members said the topic was not a priority or the return on investment and cost saving data were not available to allow policymakers to make a case.

> "Money talks, so I would say definitely showing that there is a direct correlation to resolving health-related social needs. There's a correlation to resolving those needs to the hospital's bottom line. I think if you can address a patient's transportation issues before they start missing appointments and before [their] preventable illness turns into an emergency room situation, there's cost savings there."
>
> — Medicaid Staff Member

At the same time, bridge organizations and Medicaid staff shared barriers that impeded HRSN policymaking efforts, and therefore, the sustainability of AHC efforts. For example, questions remain about an effective payment structure for community organizations, screeners, or even medical offices where individuals are identified. Lack of data about the impacts of addressing HRSNs and the costs of doing so make it difficult to create a policy case to enact state HRSN policies. Clinician and political will were also described as key for fostering HRSN-related policy changes; they were not always present in the states where bridge organizations were operating.

Quantitative proof that the AHC Model works (for example, cost savings, lower utilization) remained at the heart of decision-makers' willingness to sustain the model. Bridge organizations reported that to ensure sustainability, they needed quantitative proof showing model success to obtain buy-in from payers, partners, and politicians interested in promoting HRSN policies. Most bridge organizations emphasized the need to share data, such as cost savings and lower utilization, with new potential payers. Although most bridge organizations did not have these data, a few reported working to obtain them. A few additional bridge organizations requested faster receipt of model evaluation data. Even when quantitative proof was available, some bridge organization leaders highlighted that the data did not include a long enough time to demonstrate impact to achieve payer, partner, and political buy-in. For example, some stakeholders said that an effective evaluation of impact would need to look at a time period beyond 5 years.

> "Being able to tell that quantitative impact story has been the thing that as we've approached others, without that … it's been harder to maybe state with conviction, the power, and the impact."
>
> — Bridge Organization Leader

Future Efforts to Address HRSNs Should Be Inclusive, Adaptable, Integrated, and Well-Funded

During interviews, bridge organization staff, screeners, navigators, and clinical and community partners offered the following recommendations to entities that engage in similar HRSN initiatives.

Expand eligibility with respect to risk, insurer type, and screening sites. Interview participants suggested that the AHC Model and similar initiatives could have served more patients and achieved greater equity if patient eligibility rules had been broader. Participants indicated that many patients who did not meet the requirement for two emergency department visits would have benefited from navigation. They also noted that patients with private insurance or without insurance often have unresolved HRSNs.

> "It's really unfortunate that particularly people who are self-paying, who are completely uninsured, are not eligible for services from our program. And that's a very small population, but we do see it. We do see those folk come through all of our emergency rooms. And it's typically people who may not be documented or have whatever other extenuating circumstance going on."
>
> — Screener

In addition to the importance of expanding patient eligibility, some interview participants highlighted the importance of expanding where individuals are screened. Many individuals with HRSNs are not connected to health care systems, and expanding screening in the community (for example, when patients are enrolling in Medicaid benefits or seeking services from CSPs) would have increased bridge organizations' reach. Interview participants underscored that community screening may help implementers improve health equity by identifying individuals underserved in both community services and traditional medical care.

> "I think the better opportunity [than screening in a clinical setting] is to take the screening that community organizations do in the community already and share that with clinical sites."
>
> — AHC leader

Shift toward alternative screening tools and processes that are briefer and tailored to the screening setting. Interview participants suggested that the AHC Model screener was too long and inflexible to be successfully integrated into clinical workflows on a long-term basis. They recommended that future models like AHC make use of screening instruments that could be administered more quickly. Some bridge organizations and their partners made this change themselves as part of sustaining the AHC Model. Participants also suggested that perhaps the screening instrument could be tailored to the needs of the patient populations the CDSs serve.

> "I think the big lesson that we have to continue to learn is how do we really integrate that in the clinical care? How do we simplify it? Because the current CMS questionnaire, it's very difficult to put that in the context of regular 15- to 30-minute visit. How do we really make this easy and accessible and to be done in hopefully [a] more online format rather than in person to support the clinical team, because they have only limited time? … I think we will have to really pay attention to simplifying it and making it as user-friendly for both sides, the beneficiaries and the clinical delivery side."
>
> — AHC leader

> "The navigators just develop, like, an acuity rating for patients. Some patients are high risk of one need, and some patients are high risk of five needs. And they need to come up with a way to manage that acuity rating so that they know how to, A, prioritize their time and, B, in some of those cases, they're really doing a lot more of that circling back with the providers."
>
> — AHC Model leader

Allow frontline staff to prioritize beneficiaries by the acuity of their needs to improve navigation efficiency. Navigators associated with the AHC Model had large workloads with beneficiaries whose needs varied in number and complexity. Presuming similar workloads in the future, participants from several model partners suggested that it may be necessary to prioritize assistance to beneficiaries on the basis of frontline workers' assessments of acuity and not a standard definition of "high risk."

Better address needs commonly identified as comorbid with the core HRSNs. Beneficiaries often presented with needs beyond the five core HRSNs focal to the AHC Model. Interview participants suggested also addressing additional social service needs that are correlated with the core AHC HRSNs, such as employment, income, poverty, mental health, and loneliness. Explicitly tackling these comorbid needs can help navigators address the core needs more effectively.

Build data systems that can be integrated into both clinical and community workflows to exchange beneficiary-level screening and navigation data. Interview participants from many AHC communities suggested that future efforts that address HRSNs improve data system integration. Many stakeholders regarded data sharing as a weakness of AHC Model implementation. A few, however, questioned whether it was realistic to expect that the variety of stakeholders involved in a model like AHC would ever align around a single system, or whether the technology to support meaningful data sharing exists.

> "We've had a lot of situations where substance abuse or mental health issues become very apparent when you get into navigation, but we haven't asked [beneficiaries] any of those questions. And so [navigators] are not really prepared to make referrals … it's not something we prepared them for."
>
> — AHC leader

> "I think that a promise of IT connectivity between the social sector and the health care sector is more of a dream than a reality. I think the software platforms that are out there had a lot of good intentions and want to do a lot, but they're not mature yet."
>
> — Bridge Organization Leader

Fund CSPs. Most interview participants identified sustained funding for CDSs as a key driver for continuing screening, referral, and navigation activities. An even larger proportion of interview participants said that CSPs needed additional resources for a model like AHC to be sustained and succeed long-term. CSP funding is needed for staff time and community resources critical for helping to resolve HRSNs, participation in community alignment activities, and exchanging data with clinical organizations.

> "At the beginning of the [AHC Model] implementation, [my team] used to go to all these community meetings to introduce the program that we're working on … and some of the feedback we got was, 'well, it sounds like you guys are going to be sending us a lot of patients, but we barely have resources to help those who are asking for help right now. So if we can only help 40 people, but you're sending us an additional 100 a month, we don't know what we're going to do with that.' … And some of them would ask 'is CMS allowing you guys to transfer funds to help us get resources?' I say, 'well, no, actually the grant does not allow that.' And some of them will say, 'well, we'll do what we can.'"
>
> — Bridge Organization Leader

CSP funding may be particularly critical where clinical and community organizations are most collaborative. Some CSPs reported changing their staffing or workflows as a result of their participation in AHC or reported receiving non-AHC funding to participate in the model. Of those, only a few indicated that they had adequate staffing and bandwidth to continue to accept referrals at the same rate after the AHC Model ended. A few CSPs wanted additional staffing or funding or modifications to the referral process to continue accepting AHC referrals.

> Without funding for community service organizations, "you're almost watching success just drift away from you. And so when we have our conversations and we're looking at ways to sustain the program, we include sustaining community services and including them in the program."
>
> — Bridge Organization Staff Member

Conclusions and Lessons Learned

Several key findings emerged in this evaluation regarding fidelity to the AHC Model and its long-term sustainability. Most of the AHC Model criteria for both tracks were implemented by most bridge organizations, suggesting that the model requirements were feasible to implement. Twenty-four or more bridge organizations successfully developed a health resource equity statement, used a comprehensive CRI, distributed tailored CRSs, and effectively shared screening and navigation data across CDSs and CSPs. About half of bridge organizations also developed patient-centered action plans for at least 90% of their beneficiaries, and many other bridge organizations developed patient-centered action plans for a significant proportion of their beneficiaries. Only one AHC Model requirement was challenging for bridge organizations: involving state Medicaid agencies, with one Assistance Track bridge organization and six Alignment Track bridge organizations successfully doing so. This may have been because of competing demands that state Medicaid agencies faced during the model implementation period. Model requirements that were specific to the Alignment Track were also frequently met. One exception to this was that many bridge organizations found it difficult to include beneficiaries and caregivers on advisory boards.

Several conditions emerged as critical components for model sustainability. Bridge organizations, CDSs, and CSPs partnerships were a key factor that was found to be associated with a greater likelihood of being able to sustain screening and resource navigation. Resources, particularly funding and staffing, were also key to making these partnerships happen. Promoting partnerships and offering resources to foster them are expected to be critical for future HRSN initiatives to be successful. Data for developing HRSN policies and even value-based purchasing approaches, and quantitative proof that addressing HRSNs affects health, health care, and costs, can help promote future HRSN initiatives and sustainability. Finally, technical assistance to reduce and address staffing turnover challenges can promote more-sustained approaches. Alternatively, future Innovation Center models could include Alignment Track requirements in an effort to increase model sustainability. Additionally, future Innovation Center models could encourage organizations to establish partnerships with clinical sites that have other value-based initiatives in place to increase model sustainability.

Chapter 10: Conclusion

The Third Evaluation Report covers the Accountable Health Communities (AHC) Model's initial 5-year period of performance and no-cost extension period (April 2017 through April 2023).

It includes final findings on the implementation of the AHC Model and an assessment of the model's reach and characteristics of the beneficiaries served. It includes interim impacts on health care cost and use by track, payer type, and subpopulations. The final round of interviews with bridge organizations, partners, and beneficiaries obtained additional insights on the role of alignment, screening, and navigation in achieving model impacts. This report also introduces a number of new analyses that augmented and confirmed prior work. Specifically, new analyses examined the bridge organization characteristics associated with better implementation outcomes, such as rates of connection to community service providers (CSPs) and resolution of needs. This report also adds a focus on fidelity and sustainability of alignment and screening and navigation work. These new analyses provide an evidence base for future AHC-like models or other efforts to address health-related social needs (HRSNs).

In this chapter, we offer conclusions based on the evaluation findings presented in this report.

Despite Broad Fidelity to Model Requirements, Some Requirements Were Challenging to Implement

Broadly, bridge organizations implemented AHC with fidelity to the requirements of the model (**Chapter 9:** Lessons Learned). Key requirements included developing a health resource equity statement, using a comprehensive community resource inventory, distributing tailored community referral summaries to beneficiaries, and exchanging screening and navigation data. At least 24 bridge organizations had high fidelity to each of these four requirements. These fidelity findings showed that it was feasible for bridge organizations to implement most model requirements. Despite these successes, bridge organizations struggled with involving state Medicaid agencies, and Alignment Track bridge organizations found it difficult to recruit and retain beneficiaries with lived experiences with HRSNs on their advisory boards.

Model Effects on HRSNs Were Blunted by Chronic Community Resource Gaps

CSPs, bridge organization leaders, and navigators reiterated that the COVID-19 pandemic led to increases in resource availability, especially for food resources. Awareness of existing resources also increased during the pandemic, as did coordination between organizations. However, despite these gains during the initial phase of the pandemic, data that were more recently collected suggested that the pandemic increases in resources were temporary and did not fundamentally change resource availability in communities over the long term (**Chapter 3:** Community Capacity to Address HRSNs). Because of various challenges, AHC Model navigation did not strongly increase beneficiaries' connections to community services (compared with giving beneficiaries a list of community resources).

Having high community resource availability and lower transportation and housing needs contributed to bridge organizations' ability to achieve a high percentage of CSP connections or HRSN resolutions (**Chapter 7:** Connections to CSPs and HRSN Resolution). These results highlighted the importance of not only identifying needs in the community but also ensuring resources are available to meet those needs. Across the communities, navigators, bridge organization leaders, and CSPs expressed frustration about not being able to connect beneficiaries to services because of a lack of resources. To successfully help beneficiaries access services and address HRSNs, navigators must be familiar with ever-changing CSP resources, CSP services' eligibility requirements, and beneficiaries' specific strengths and challenges (for example, transportation access) (**Chapter 7:** Connections to CSPs and HRSN Resolution).

Alignment Track bridge organizations conducted annual analyses of gaps in the availability of community services and developed quality improvement plans to address identified gaps. Bridge organizations often defined their gaps as large and overarching community-level challenges (for example, insufficient affordable housing) that were difficult to address because of the need for longer-term policy and infrastructure changes (**Chapter 4:** Implementation of Alignment).

Several Beneficiary and Bridge Organization Characteristics Were Associated with HRSN Resolution

Despite the gaps in resources, approximately half of beneficiaries used community services, and 40% of those who received navigation had at least one HRSN resolved. Food insecurity, housing instability, and transportation problems remained the most common beneficiary-reported needs. Among those who received navigation, underserved racial/ethnic groups, beneficiaries with Medicaid, and those with diabetes were all more likely to have their HRSNs resolved (**Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health).

The new analyses reinforced the importance of access to transportation to address beneficiaries' HRSNs (**Chapter 7:** Connections to CSPs and HRSN Resolution). They also suggested that HRSN resolution may be facilitated by community characteristics, such as high levels of resource availability and low need for transportation or housing assistance, and bridge organization characteristics, including strong partnerships between bridge organizations and CSPs (including through Alignment Track activities) and high rates of documented navigation completion. In addition, these results highlighted how the combination of these characteristics can create synergistic effects.

Growing Evidence Shows That the AHC Model's Reach and Effect May Differ for Subpopulations

The AHC Model originally assumed that resolving beneficiaries' HRSNs through navigation to services would improve their health outcomes and reduce health care use. However, we found navigation had little impact on connection to CSPs and need resolution. Despite this, we saw significant impacts of navigation on health care expenditures and hospital use. Health care expenditures and hospital use significantly declined for Medicaid beneficiaries in both tracks and for fee-for-service (FFS) Medicare beneficiaries in the Assistance Track (**Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health).

Subpopulation analyses suggested that some groups of beneficiaries who have historically faced barriers to accessing health care may have experienced more-pronounced reach and impacts. Black or African American and Hispanic beneficiaries were more likely to accept navigation and have a resolved HRSN. Beneficiaries with diabetes were also more likely to have at least one need resolved (**Chapter 7:** Connections to CSPs and HRSN Resolution).

The Second Evaluation Report showed that the AHC Model significantly affected expenditures and hospital use outcomes for non-White and/or Hispanic FFS Medicare beneficiaries and for Medicaid beneficiaries with multiple HRSNs. This report also shows that these two subpopulations had larger and more-favorable impacts than other subpopulations. New analyses also indicated that Medicaid beneficiaries with depressive disorders had higher health care expenditures and lower use than those without such conditions. FFS Medicare beneficiaries with pulmonary diseases or diabetes had lower health care expenditures and use than FFS Medicare beneficiaries without such conditions (**Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health).

AHC Model Impacts on Health Care Use May Rely on Trusting Navigation

Consistent with previous reports, bridge organizations highlighted the intangible value that navigation brings to their clients, the importance of building trust and improving access to services, and downstream effects such as decreases in emergency department (ED) use and health care expenditures. Interviewees reported that the screening and navigation process created trust between navigators and beneficiaries, which they could build on to help patients better navigate the health care system (**Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health). AHC navigators worked hard to develop trust with beneficiaries and leveraged this relationship to provide aid that went above and beyond their defined role (**Chapter 6:** Navigation**, Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health).

Our evaluation suggests a new working hypothesis to explain the paradoxical findings showing little impact of navigation on connection to CSPs and need resolution but significant impacts of navigation on health care expenditures and hospital use. Screening and navigation alone could have directly affected use (for example, ED use), independent of any HRSN resolution (**Chapter 7:** Connections to CSPs and HRSN Resolution). Namely, although navigators may have had less-than-expected success resolving HRSNs, their other assistance (for example, reminding beneficiaries about appointments and medications) may have improved beneficiaries' health

care and their ability to manage their health care needs. The AHC Model also was associated with stronger impacts on health care outcomes for beneficiaries with chronic or other potentially disabling conditions (**Chapter 8:** Model Impacts on Health Care Cost, Quality of Care, and Health). More broadly, for interventions focused on reducing health care utilization and expenditures, screening for HRSNs may be an effective strategy to identify and target beneficiaries most likely to benefit.

Bridge Organizations Were Optimistic About Sustaining Screening, Navigation, and Partnerships

Under the AHC Model, beneficiaries were screened for five core HRSNs and received navigation services directing them to CSPs to help resolve their HRSNs. Key stakeholders recommended how best to screen beneficiaries for HRSNs, who should be screened, and who should receive navigation services (**Chapter 9:** Lessons Learned). Some interviewees recommended alternative screening tools and processes to shorten the amount of time needed to conduct screening. Some stakeholders believed that employment, income, poverty, mental health, and loneliness were interconnected needs that could be integrated into updated screening protocols. Others recommended that navigators be allowed to tailor the screening to the individual and setting. Still others recommended targeting screening and navigation more to prioritize beneficiaries by the acuity of their needs and thus improve navigation efficiency.

Respondents also highlighted data system quality, as stronger data systems better allow for integration between the clinical and CSP workflows (**Chapter 9:** Lessons Learned).

Unsurprisingly, securing adequate funding to continue screening and navigation work was a key component of model sustainability. Many bridge organizations had reached out to, or had been approached by, health plans who wanted to continue supporting their work (**Chapter 9:** Lessons Learned). Other bridge organizations were thinking about ways to integrate screening and navigation into other existing programs, which would allow them to leverage those funding sources to continue supporting screening and navigation. Beyond funding, stakeholders also emphasized that their partnerships were key to sustaining the AHC Model.

Three cross-cutting bridge organization characteristics emerged as common factors supporting the sustainability of screening and navigation: (1) being in the Alignment Track, (2) having fewer staff turnover challenges, and (3) having previously participated in other value-based initiatives (**Chapter 9:** Lessons Learned).

AHC Model Insights for a Framework for Health Care Transformation

The AHC Model was one of more than 50 models that the CMS Innovation Center tested to transform the health care delivery in ways that would improve the quality and outcomes for beneficiaries and reduce expenditures for the system. In a retrospective review of these models, the CMS Innovation Center highlighted both the evidence of models' impact on transformation and the need for a new framework to increase consistency in how they define, capture, and measure these impacts (Fowler et al., 2023).

The evidence from the evaluation of the AHC Model provided a number of important insights on transformation. First, flexibility was an important driver not only of implementation success but also of beneficiary engagement. The move to virtual screening and navigation, for example, allowed the model to operate during an unprecedented public health crisis and engage beneficiaries in new and tailored ways. Second, the number of HRSNs was a key predictor of intervention acceptance among beneficiaries and several model outcomes. Whether HRSNs are a target of impact or a contributing factor, collecting beneficiary HRSN data will be critical to understanding whether transformation efforts are widening or closing health equity gaps. Third, integration of data collection and

reporting across systems and entities created the foundation for strong collaboration and data-driven implementation. Bridge organizations that had closed-loop data systems with key partners benefited from timely data exchange, reporting, and referral follow-up. Finally, this evaluation benefited from a randomized control design in the Assistance Track with the statistical power to detect true differences. The AHC Model demonstrated both the feasibility of randomized designs on a large scale and their value in assessing the impacts of delivery system reforms.

Next Steps

This Third Evaluation Report presented final key findings and lessons for AHC Model implementation and interim findings on expenditures and health care use. Future work will focus on the stability of the impacts on expenditures and quality of care within and across tracks and for subpopulations examined in this report. Future analyses will use meta-regression to systematically examine how bridge organization factors, community conditions, and participant variation may be associated with bridge organizations' success in improving outcomes.

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