INTEGRATED CARE FOR KIDS (InCK) MODEL

Evaluation Report 3

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Integrated Care for Kids (InCK) Model

Evaluation Report 3

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List of Acronyms and Abbreviations

ACMT	Advanced Care Management Team
ADHD	Attention-Deficit/Hyperactivity Disorder
APM	Alternative Payment Model
CBO	Community-Based Organization
CCS	Core Child Services
CHIP	Children's Health Insurance Program
CHW	Community Health Worker
CMS	Centers for Medicare & Medicaid Services
ED	Emergency Department
HEDIS	Healthcare Effectiveness Data and Information Set
InCK	Integrated Care for Kids
MCO	Managed Care Organization
MDE	Minimum Detectable Effect

NCQA	National Committee for Quality Assurance
OhioRISE	Ohio Resilience through Integrated Systems and Excellence
OOHP	Out of Home Placement
PCP	Primary Care Provider
PFK	Partners for Kids
PMPM	Per Member Per Month
Q	Quarter
RAF	Retrospective Attribution File
REDCap	Research Electronic Data Capture
SIL	Service Integration Level
SOP	Standard Operating Procedure
T-MSIS	Transformed Medicaid Statistical Information System
VNA	Visiting Nurse Association of Central Jersey

Key Terms

Term	Definition
Administrative assessment	A form of needs assessment based on Medicaid claims, other health records, individual-level data from other state agencies, and publicly available geospatial data.
Alternative Payment Model	A payment approach that gives providers added incentive payments to provide high-quality and cost-efficient care, usually targeted to a specific clinical condition, care episode, or population. Award recipients designed InCK Model alternative payment models (APMs) to support care coordination activities, incentivize and facilitate quality improvements in care, encourage patient-centered care, and reduce Medicaid expenditures. It is required to cover beneficiaries in SIL 2 and SIL 3 at a minimum.
Attributed population	The population of beneficiaries ages 0-20 years enrolled in Medicaid or the Children's Health Insurance Program (CHIP) for at least one month during the model implementation period while residing in the attributed region; some award recipients also include pregnant Medicaid beneficiaries ages 21 and up in their attributed populations.
Award recipient	An organization awarded a cooperative agreement from the Centers for Medicare & Medicaid Services (CMS) to participate in the InCK Model, either a Lead Organization or state Medicaid agency.
Core Child Services	Health and non-health services included in the InCK Model, including physical and behavioral health, early childhood care, education, food, housing, Title V, child welfare, and mobile crisis response. At least annually, award recipients are required to assess for need across these 10 core child services (CCS) domains for all beneficiaries residing in their attributed region.

Term	Definition
Implementation period	Model Years 3-7 of the InCK Model (2022-2026), in which award recipients implement the InCK Model.
Lead Organization	An organization designated to administer their local InCK Model in partnership with their state Medicaid agency.
Local model	The model approach designed and implemented by an InCK Model award recipient in accordance with general CMS model requirements and tailored to their local community's needs and capacity.
Needs Assessment	The approach award recipients use to identify CCS needs of beneficiaries in their attributed populations to facilitate preventive care and inform service integration level (SIL) stratification; this includes both screen-based assessments and administrative assessments.
Out of home placement	For the purposes of the InCK Model, a composite measure of placement in a long-term care facility (e.g., a residential care center, nursing facility, or intermediate care facility); inpatient hospitalization for behavioral health (in a psychiatric hospital, children's hospital, or other hospital); or custody episode in foster care.
Partnership Council	A group comprising representatives from local CCS organizations, including Medicaid payers, physical and behavioral health providers, as well as beneficiaries, caregivers, and families, created by the Lead Organization for the purposes of collecting stakeholder input and devising strategies to achieve local coordination and integration across CCS organizations and providers.
Pre-implementation period	Model Years 1 and 2 of the InCK Model (2020-2021) in which award recipients engaged in activities in preparation for the InCK Model implementation period.
Screen-based assessment	A form of needs assessment based on self-reported beneficiary data collected in person, by telephone, or through an online survey.
Service Integration Coordinator	An individual who serves as, or facilitates access to, the single point of contact for a beneficiary's integrated care coordination and/or case management of all CCS.
Service Integration Level	The level of InCK Model services a beneficiary is eligible to receive based on results from their local model's initial needs assessment and any further screening processes, with more intense integrated care coordination and case management available for beneficiaries assigned to SIL 2 or SIL 3.
Service Integration Level Stratification	The process by which InCK award recipients stratify attributed beneficiaries into one of three SILs, tiered according to the type and severity of CCS needs.

Chapter One

Introduction

This third Integrated Care for Kids (InCK) Model Evaluation Report describes the award recipients' approach to key model elements, the status of their implementation, and early data on model reach and impacts. The evaluation report covers InCK Model Implementation Years 1 and 2 (2022–2023). This chapter provides a brief background on the model, an overview of the evaluation approach, and summarizes the content of this report.

Background

The Centers for Medicare & Medicaid Services (CMS) launched the InCK Model in January 2020 through the Center for Medicare and Medicaid Innovation. The goal of the InCK Model is to improve the quality of care for children covered by Medicaid or the Children's Health Insurance Program (CHIP) while reducing or maintaining Medicaid expenditures. CMS created the InCK Model as a child-centered, local delivery and payment model in which award recipients assess the health and social needs of children enrolled in Medicaid in a designated geographic area. Children undergo a comprehensive assessment. Those identified as having higher needs are then engaged in integrated care coordination or integrated case management. Services focus on addressing unmet needs and connecting beneficiaries to health and non-health Core Child Services.[1]

At the start of the model implementation period (2022-2026), seven award recipients across six states began to implement the InCK Model in a specific geographic area, the "attributed region" (Exhibit 1.1). An award recipient's "attributed population" consists of all children ages 0–20 residing in its attributed region and also enrolled in comprehensive Medicaid or CHIP[2] for at least one month during the calendar year. Some award recipients also include pregnant and postpartum beneficiaries ≥ 21 years old meeting the same residential and coverage requirements.

Exhibit 1.1. InCK Model Award Recipients are a diverse set of organizations.

InCK Model Award Recipient	Lead Organization	2023 Attributed Population[1]
CT InCK	Clifford W. Beers Guidance Clinic	11,960 children (ages 0–20) and pregnant or postpartum beneficiaries (ages 21+) enrolled in Medicaid or CHIP in two ZIP codes in New Haven, CT
IL–All Hands InCK	Ann & Robert H. Lurie Children's Hospital of Chicago	41,478 children (ages 0–20) enrolled in Medicaid or CHIP in two ZIP codes in Cook County, IL
IL–Village InCK	Egyptian Health Department	11,366 children (ages 0–20) enrolled in Medicaid or CHIP in Gallatin, Hamilton, Saline, Wayne, and White Counties in southern IL
NC InCK	Duke University	112,057 children (ages 0–20) enrolled in Medicaid or CHIP in Alamance, Durham, Granville, Orange, and Vance Counties in central NC
NJ InCK	Hackensack Meridian Health	160,458 children (ages 0–20) enrolled in Medicaid or CHIP in Monmouth and Ocean Counties in central NJ
NY InCK	Montefiore Medical Center	56,710 children (ages 0–20) and pregnant or postpartum beneficiaries (ages 21+) enrolled in Medicaid in three ZIP codes in North-Central Bronx, NY
OH InCK	Nationwide Children's Hospital	33,857 children (ages 0–20) enrolled in Medicaid or CHIP in Licking and Muskingum Counties in eastern OH

Key: InCK=Integrated Care for Kids; CT=Connecticut; CHIP=Children's Health Insurance Program; IL=Illinois; NC=North Carolina; NJ=New Jersey; NY=New York; OH=Ohio.

Source: 1. Award recipient-submitted 2023 Retrospective Attribution File.

1 In this context Core Child Services include physical and behavioral health, early childhood care, education, food, housing, Title V, child welfare, and mobile crisis response.

2 NY InCK does not include CHIP beneficiaries in their attributed population; all other award recipients include CHIP beneficiaries.

Award recipients participated in a two-year pre-implementation period (2020–2021) and are in a five-year implementation period (2022–2026). During the pre-implementation period, award recipients designed models comprising six core elements (Exhibit 1.2). Starting in the implementation period, they began conducting needs assessments and providing integrated care coordination and case management services.

Exhibit 1.2. InCK's core model elements focus on prevention, service integration, and sustainability.

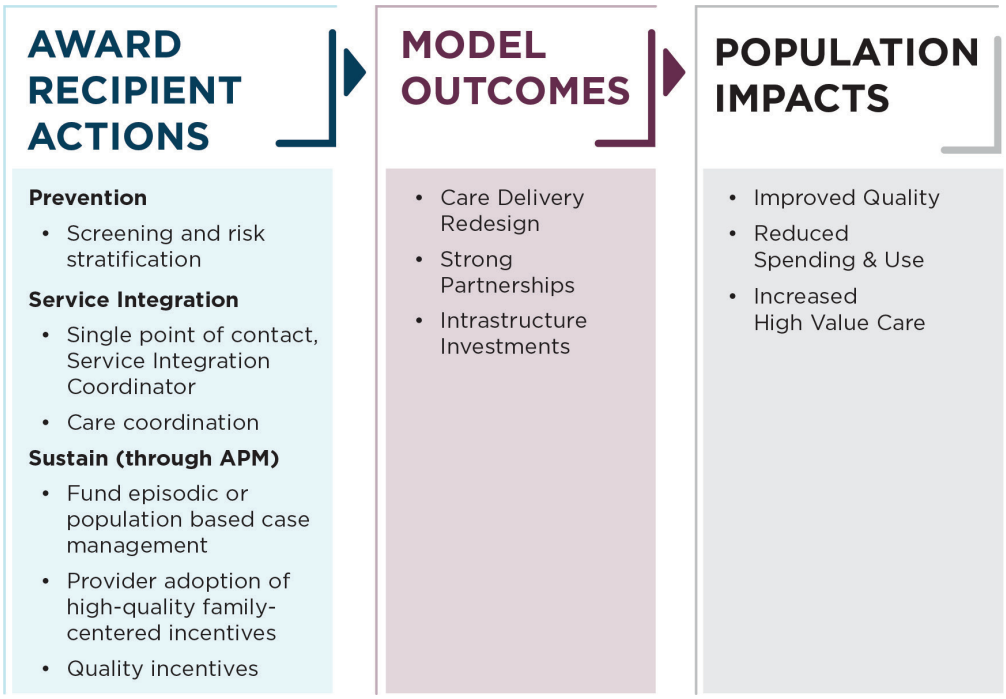
Model Element	Definition
Partnership Council	A group comprising representatives from local CCS organizations, Medicaid payers, physical and behavioral health providers, as well as beneficiaries, caregivers, and families.
Enhanced Information and Data Sharing	Data sharing across clinicians and beneficiaries and their caregivers to support needs assessment and SIL stratification, service integration, and integrated care coordination; and program monitoring and evaluation activities related to the model.
Needs Assessment and SIL Stratification	An annual needs assessment to identify beneficiary CCS needs across 10 domains related to both health and non-health CCS: Physical Health, Behavioral Health, Maternal and Child Health, Functional Symptoms, Functional Impairments, Special Education/Early Intervention, Child Welfare, Imminent or At Risk of OOHP, Housing Instability, and Food Insecurity. This includes both screen-based assessments and administrative assessments. Beneficiaries receive a SIL assignment based on the type and severity of CCS needs: SIL 1: Beneficiaries in the attributed population with no or few identified needs. SIL 2: Beneficiaries with functional symptoms or impairments who have needs in multiple CCS domains. SIL 3: Beneficiaries who are eligible for SIL 2 and exhibit at least one of the following: currently or at imminent risk of OOHP; having prolonged/multiple inpatient admissions.
Person- and Family-Centered Care or Service Integration	Integrated care coordination across health and non-health CCS providers to facilitate care delivery that is individualized, family and child driven, and culturally and linguistically appropriate. Service integration includes improved care coordination and management of medical care and other CCS from integrated, interdisciplinary care teams with a single point of contact for beneficiaries, with enhanced information sharing and tailored care plans. Beneficiaries in SIL 3 receive the most intensive services.
Two-Generation Approaches	Approaches to needs assessment and service integration that incorporate the needs of both children and their parents or caregivers. The underlying framework recognizes that the health and well-being of beneficiaries and their families are linked. Two-generation approaches assess family-level needs and/or provide interventions to meet the needs of children and their families.
Award Recipient–Specific APM	Each award recipient designs and implements its own APM for its attributed population. APMs serve as a mechanism to support care coordination activities, incentivize and facilitate quality improvements in care, encourage patient-centered care, and reduce Medicaid expenditures.

Key: InCK=Integrated Care for Kids; CCS=Core Child Services; SIL=Service Integration Level; OOHP=Out of Home Placement; APM=Alternative Payment Model.

InCK Model Logic Model

Through the core model elements, the InCK Model intended to transform how beneficiaries and their families receive services, ultimately improving quality of care while reducing or maintaining Medicaid costs and reducing Out of Home Placements (OOHPs) (Exhibit 1.3).

Exhibit 1.3. The InCK Model is expected to improve beneficiary experience and outcomes through care redesign, strong partnerships, and infrastructure investments.



Key: InCK=Integrated Care for Kids; APM=Alternative Payment Model.

Summary of Evaluation Findings

In 2022 and 2023, award recipients focused on implementing their needs assessments and service integration level (SIL) stratification processes and their award recipient-specific Alternative Payment Models (APMs). Award recipients varied in the design of each of these components; the extent to which they implemented each model element; and the extent to which they reached a sizeable proportion of their attributed population at the end of 2023. Exhibit 1.4 summarizes the design and implementation status of each award recipients' APM and the reach of model activities at the end of 2023. Appendix A details our approach to assessing each award recipient's model activities to determine whether their implementation status was sufficient to enable valid estimates of population-level impacts. The evaluation determined that it was only feasible to assess impacts for three award recipients (IL-All Hands InCK, IL-Village InCK, and NC InCK) at the end of 2023. Throughout this report, these three award recipients are listed first.

Exhibit 1.4. The design and implementation status of the InCK APM and beneficiary engagement in model activities at the end of 2023 informed the ability to assess Model impacts.

Award Recipient	Attributed Population Size (#) (2023)[1]	APM Design		Model Reach Components		
		Population wide (y/n)	Design components[2]	APM: Implementation status[4,a]	Needs assessment: Beneficiaries with any assessment[b] #(%)	Engaged: Beneficiaries with model activities[c,5] #(%)
IL–All Hands InCK	41,478	Yes	Incentive payment for preventive services, reduced utilization, and total cost of care	Full: Payments distributed in 2023; plan to expand measures included in performance calculation in 2024	>99%[d]	1,776 (4.3%)
IL–Village InCK	11,366	Yes[e]	Incentive payment for quality of care and creation of care plans	Partial: Data collection underway[g]; payments expected in 2024	1,456 (12.6%)	1,456 (12.6%)
NC InCK	112,057	Yes	Incentive payment for screening for upstream drivers of health, preventive services, and reduced utilization	Full: Data collection underway; payments expected in 2024	>99%[d]	1,816 (1.6%)
CT InCK	11,960	No[f]	PMPM payment for integrated care coordination and case management	Full: First payments distributed to providers at end of 2023	8,951 (74.8%)	Less than 11 (<0.1%)
NJ InCK	160,458	Yes	Incentive payment for PCPs to review screen-based assessment; PMPM payment for care coordination and case management services	Full: Provider payments started in 2022; payment rates increased in 2023	1,339 (0.8%)	505 (0.3%)
NY InCK	56,710	Yes[e]	Shared Savings model with quality incentives for preventive care, screening for upstream drivers of health, and screening for clinical depression and follow-up[3]	Partial: Data collection underway; one MCO's provider payments expected in 2024	>99%[d]	129 (0.2%)
OH InCK	33,857	Yes[e]	Incentive to improve quality of care for beneficiaries with ADHD and completion of health risk assessments	Partial: Contracts in place in early 2023; plan to distribute payments in 2024	32,253 (97.9%)	1,470 (4.3%)

Key: InCK=Integrated Care for Kids; APM=Alternative Payment Model; CT=Connecticut; IL=Illinois; NC=North Carolina; NJ=New Jersey; NY=New York; OH=Ohio; PMPM=per-member-per-month; PCP=Primary Care Provider; MCO=Managed Care Organization; ADHD=Attention-Deficit/Hyperactivity Disorder; Q=Quarter.

Notes: a. Full APM implementation indicates that the award recipient has contracts in place with all or most of the MCOs serving their attributed population. CT InCK APM implementation is considered full because all beneficiaries in the attributed region are potentially impacted by the APM because the state Medicaid program is under a fee-for-service payment arrangement. Partial APM implementation indicates that the award recipient's APM is reaching only a proportion of the award recipient's attributed population. b. The number of beneficiaries with any assessment includes both those with an administrative assessment and those with a screen-based assessment. Based on model flexibilities CMS introduced in 2021 award recipients were able to use administrative data to meet needs assessment and SIL stratification requirements. c. The evaluation cannot verify the number of beneficiaries who engage in integrated care coordination and case management services; therefore, it assessed both the design and implementation of the APM, and the number of beneficiaries engaged in model activities as a proxy for "reach" of the model. Engagement in model activities is calculated differently for each award recipient based on model design. For IL–All Hands InCK and IL–Village InCK, engagement refers to the number of beneficiaries who have ever received a screen-based assessment, because these are beneficiaries who have engaged with a frontline staff member to complete a screen-based assessment. For CT InCK, NJ InCK, NY InCK, and OH InCK, engagement refers to the number of beneficiaries who have a final Service Integration Level (SIL) assignment of SIL 2 or SIL 3, because these beneficiaries have been identified as high risk (SIL 2 or SIL 3) and have at a minimum been offered integrated care coordination and case management services. NC InCK does not use screen-based assessments but did begin reporting the number of beneficiaries engaged in integrated care coordination and case management services in 2023. The evaluation uses that number in its assessment of reach for NC InCK. d. The number of beneficiaries who have ever received any type of assessment may exceed the total attributed population (2023) as beneficiaries enter and exit the attributed region. e. IL–Village InCK, NY InCK, and OH InCK established contracts with some but not all the MCOs that serve the beneficiaries in their InCK attributed population. IL-Village InCK's APM covered 50% of the population, NY InCK's covered 22% of the population, and OH InCK's covered 50% of the population at the end of 2023. It is unclear at the time of reporting the extent to which these award recipients will establish contracts with the remaining MCOs. f. CT InCK's APM provides reimbursement for services provided to beneficiaries in SIL 2 or SIL 3 only. It is not designed to be a population-wide APM. g. Data collection is the first phase of APM implementation. Payers collect data about provider performance on quality metrics prior to distributing payments.

Sources: 1. Award recipient-submitted 2022-2023 Retrospective Attribution Files. 2. InCK Model Evaluation Report 2. Available at: https://www.cms.gov/priorities/innovation/data-and-reports/2024/inck-model-second-eval-rpt 3. Bronx Equity Integrated Care for Kids Year 4 Operational Plan (October 2022). 4. Site visits and interviews conducted in 2023. 5. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

Based on our assessment of award recipients' model activities and implementation status, this report includes findings on impacts of the model for IL-All Hands InCK, IL-Village InCK, and NC InCK in their respective chapters. Key findings include:

- The evaluation did not observe an impact by IL-All Hands InCK on either well-child visits or emergency department (ED) visits. Due to poor alignment with the comparison group, the evaluation could not yield conclusive findings for total cost of care (TCOC).
- TCOC increased more slowly for IL-Village InCK than it did for its comparison group in the same time period. This yielded relative savings of 4.8%. The evaluation did not observe an impact by Village InCK on ED visits and could not yield conclusive findings for well-child visits due to misalignment with the comparison group.
- Well-child visits increased more quickly for NC InCK than for its comparison group in the same time period: a relative increase of 2.9%. TCOC also increased more quickly for NC InCK than its comparison group, a relative increase of 3.3%. The evaluation was unable to determine impacts on ED visits due to comparison group misalignment.

Evaluation Overview

CMS contracted with Abt Global LLC and its partners, Bailit Health and Westat, to evaluate the implementation and impact of the InCK Model for each of the seven award recipients. The InCK Model Evaluation Team conducted qualitative and quantitative data collection and analysis to answer four primary research questions:

1. How was the InCK Model implemented by each award recipient?
2. How has the InCK Model implemented by each award recipient affected children and families in the following four areas: navigation and coordination, utilization and expenditures, quality of care, and beneficiary and caregiver experience of care?
3. To what extent did service changes or disruptions (for example, transitioning between SILs, lapses in coverage or eligibility, delays in services, discontinuation of care) occur in the InCK Model, and what impact did they have on care delivery by each award recipient?
4. To what extent do the effects of the InCK Model vary?

This report draws on the following data sources to address the four research questions:

1. Interviews and focus groups conducted as part of in-person site visits in 2023
2. Model documents submitted by award recipients
3. Medicaid claims and enrollment data
4. Program data submitted by award recipients

Content of This Report

Chapters 2-8 provide detailed findings for each award recipient. Each chapter summarizes the award recipient's approach to and progress on model implementation, and early model impacts on health care utilization and cost for three award recipients for which assessments of model impact were feasible (All Hands InCK, Village InCK, and NC InCK).

Chapter 9 provides conclusions and next steps.

Appendix A details the evaluation's approach to determining if it is feasible to detect population level impacts.

Appendix B details the data sources that inform this report.

Appendix C summarizes qualitative methods employed to produce this report.

Appendix D includes descriptive statistics on demographics and historical utilization of each award recipient's attributed population.

Appendix E details measure specifications for model impact measures included in this report.

Appendix F summarizes quantitative methods employed to produce this report

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Two

IL–All Hands InCK

IL–All Hands (All Hands) InCK implemented its approach to needs assessment and Service Integration Level (SIL) stratification in 2022 and began providing integrated care coordination and integrated case management services to beneficiaries in its attributed population (Exhibit 2.1). By the end of 2023, All Hands InCK had successfully conducted screen-based assessments of 4.3% of its attributed population (Exhibit 2.2). It also implemented its Alternative Payment Model (APM) and began distributing performance incentive payments in 2023. All Hands InCK contracts with five Managed Care Organizations (MCOs) for its APM, which collectively cover the full attributed population. Service Integration Coordinators provided integrated care coordination and case management to a range of three to 26 beneficiaries per month. Appendix D includes descriptive information about All Hands InCK's attributed population and historical utilization in the region.

Exhibit 2.1. All Hands InCK includes more than 41,000 beneficiaries in Chicago, with nearly 8% in SIL 2 or 3.

AWARD RECIPIENT

IL–All Hands InCK

LEAD ORGANIZATION

Ann & Robert H. Lurie Children's Hospital of Chicago

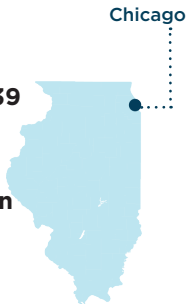
TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

41,4781[1]

Children (ages 0–20) enrolled in Medicaid or CHIP[a]

ATTRIBUTED REGION

Two ZIP codes in Chicago, IL: 60639 (Belmont-Cragin neighborhood) and 60651 (Austin neighborhood)



ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[b,2,3]

38,280 → 92.3%

SIL 1 beneficiaries

Attributed beneficiaries with low CCS needs who do not meet SIL 2 or SIL 3 criteria.[c] Receive referrals from Service Integration Coordinators/single points of contact or from All Hands telephone Helpline, as needed.

Administrative assessment only	Screen-based assessment	No assessment[d]
36,555	963	762

2,494 → 6.0%

SIL 2 beneficiaries

Attributed beneficiaries who have a functional symptom or early intervention need or are classified in Levels 5b through 6 by CRG software, i.e., moderate CCS needs. Receive integrated care coordination including referrals from community-based Service Integration Coordinator/single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
1,788[e]	706	N/A

704 → 1.7%

SIL 3 beneficiaries

Attributed beneficiaries who have a need in at least one of the following domains: child welfare engagement, OOHP, or prolonged inpatient admission or are classified in Levels 7 through 9 by CRG software, i.e., high CCS needs. Receive integrated case management from MCO care coordinators and (in rare cases) from community-based Service Integration Coordinators/single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
629[e]	75	N/A

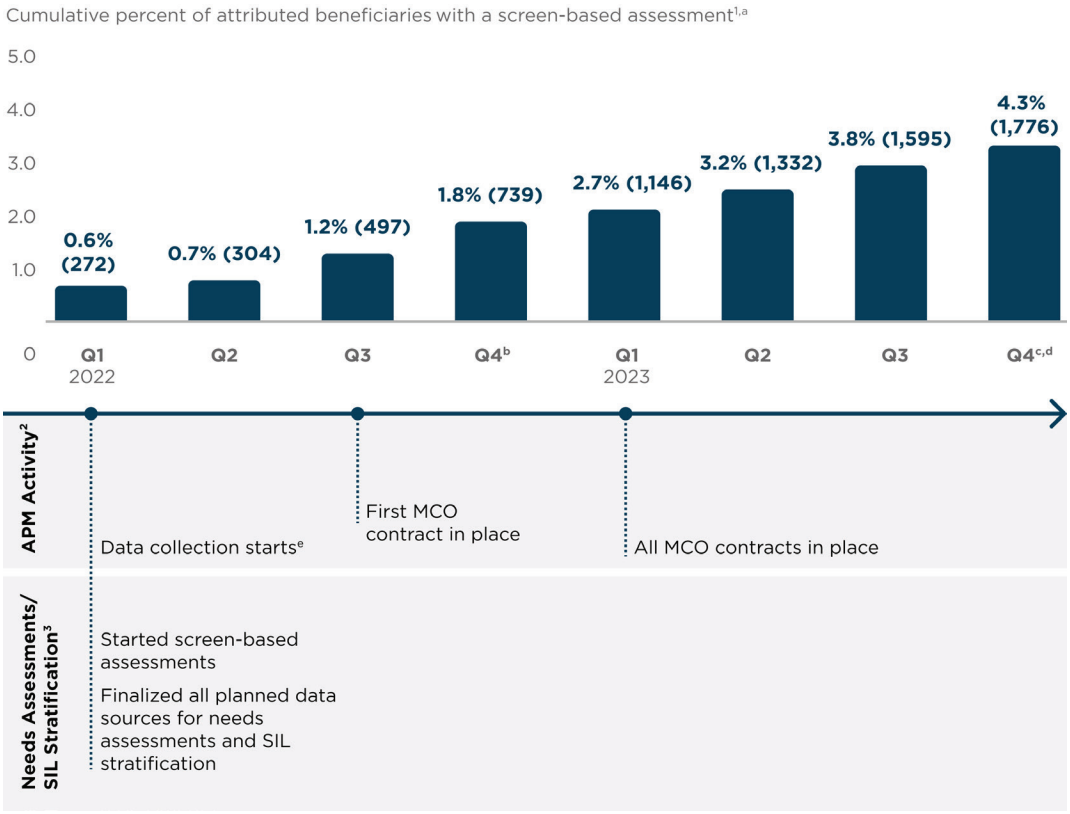
Key: IL=Illinois; InCK=Integrated Care for Kids; CHIP=Children's Health Insurance Program; SIL=Service Integration Level; CCS=Core Child Services; CRG=Clinical Risk Group; OOHP=Out of Home Placement; MCO=Managed Care Organization; Q=Quarter.

Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid or CHIP for at least 1 month during the model implementation period while residing in the attributed region. b. We counted the number of beneficiaries in a SIL based on their highest confirmed SIL assignment during the year. c. All Hands InCK assumed and assigned these beneficiaries to SIL 1 unless confirmed otherwise. d. The evaluation considers these beneficiaries SIL 1 since they did not receive an assessment due to migration into or out of the attributed region during the reporting period. e. All Hands InCK will finalize SIL assignment with an administrative assessment only.

Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 3. Award recipient submitted 2023 Model Operational Plan File.

The evaluation assessed the design and implementation of both the APM and the needs assessment and SIL stratification activities to define reach of model activities. All Hands InCK's APM was fully implemented in 2023 and covered the full attributed population. All Hands InCK used a sequential hybrid approach to needs assessment and SIL stratification. Medicaid claims produced a preliminary SIL assignment. All Hands InCK then adjusted the SIL assignment based on the results of a screen-based assessment. If they were unable to conduct a screen-based assessment with a beneficiary, their preliminary SIL assignment was considered final. For 2023, this was 93.9% of the attributed population. Given that beneficiaries with a final SIL 2 or SIL 3 assignment may not have engaged with a frontline staff person, the number of beneficiaries with a screen-based assessment is the best measure of engagement in model activities for All Hands InCK (Exhibit 2.2). We expect engagement to contribute to changes in model outcomes.

Exhibit 2.2. All Hands InCK engaged more than 4% of their population in screen-based assessments through 2023 and made progress in APM implementation.



Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; Q=Quarter; SIL=Service Integration Level.

Notes: a. All Hands InCK conducted outreach to beneficiaries to complete screen-based assessments regardless of SIL. b. All Hands InCK's attributed population in 2022 was 42,013. c. All Hands InCK's attributed population in 2023 was 41,478. d. As of the end of 2023, All Hands InCK engaged a total of 1,776 beneficiaries in InCK Model activities. According to the evaluation's estimates, well-child visits would need to increase by 748 to detect a population-level impact. See Appendix A for additional detail on this methodology. e. All Hands InCK began data collection related to primary care measures in 2022. They were still finalizing their approach to other measures.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. All Hands InCK 2023 Annual Progress Report. 3. Award recipient-submitted Standard Operating Procedure documents (2022–2023).

All Hands InCK APM

The All Hands InCK APM is a per-member-per-month (PMPM) payment split between quality incentives ($3 PMPM) and a total cost of care incentive ($1.50 PMPM) (Exhibit 3.3). It is a Health Care Payment Learning & Action Network Category 2C APM.[3] The APM covers all children who have resided in the attributed region for six months or more. At the end of 2023, All Hands InCK started distributing payments to primary care providers (PCPs), behavioral health providers, and community-based organization (CBO) providers. All Hands InCK distributed payments to PCPs and behavioral health providers based on their performance on quality and efficiency metrics (compared with other providers of the same type) and the number of All Hands InCK eligible beneficiaries served by the provider. All Hands InCK refined its CBO distribution methodology over time. In 2022, All Hands InCK distributed infrastructure payments to CBOs, payments for data submissions, and payments for implementing NowPow.[4] In 2023, All Hands InCK distributed infrastructure payments, payments based on engagement and enrollment, and payments based on volume and array of services.[5]

Exhibit 2.3. All Hands InCK's APM focuses on improving quality outcomes and maintaining costs.

Measure Type	Measure Details[1]	Performance Benchmark[a,1]
Incentive Measures for All Hands InCK Primary Care Providers		
Quality	Well-child visits in the first 30 months of life[b,c]	Earn full incentive payment by meeting HEDIS 90th percentile or more than 7% improvement from prior year[e]
	Child and adolescent well-care visits	
	Childhood immunization status – Combination 3[d]	
Efficiency	TCOC[f,g]	Earn full incentive by maintaining the TCOC at 100% of the previous year[h]
	ED visits per 1,000 attributed beneficiaries	Undetermined at time of report[i]
	Inpatient admissions per 1,000 attributed beneficiaries	Undetermined at time of report[i]
Incentive Measures for Behavioral Health Providers[i]		
Quality	Community-based behavioral health visits per 1,000 attributed beneficiaries	Undetermined at time of report[i]
Efficiency	Behavioral health ED visits per 1,000 attributed beneficiaries	Undetermined at time of report[i]
	Behavioral health inpatient admissions per 1,000 attributed beneficiaries	

Key: InCK=Integrated Care for Kids; APM=Alternative Payment Model; HEDIS=Healthcare Effectiveness Data and Information Set; TCOC=Total Cost of Care; ED=Emergency Department.

Notes: a. The All Hands InCK APM is a quality incentive payment. All providers caring for attributed beneficiaries are eligible for incentive payments. All Hands distributes these bonuses as quality incentives to primary care providers (50%), behavioral health providers (25%) and community-based providers (CBOs) (25%). b. The National Committee for Quality Assurance (NCQA) develops, maintains, and supports HEDIS measures including well-child visits in the first 30 months of life (W30). NCQA establishes a benchmark for each quality measure. The HEDIS 90th percentile means that providers enrolled in the APM have a well-child visit rate that is as good or better than 90% of other provider groups. c. Providers can only partially earn incentive payments for the W30 measure because the HEDIS measure contains two separate age bands: 0–15 months and 15–30 months. d. The percentage of children age 2 who have the following

3 The Health Care Payment Learning & Action Network Framework categorizes a quality incentive payment linked to performance metrics as 2C. More information is available at: https://hcp-lan.org/apm-framework/.

4 NowPow is an electronic platform All Hands InCK used to communicate with beneficiaries and caregivers to disseminate screen-based assessments. It is also a closed loop referral system. Unite Us, another closed loop referral platform, acquired NowPow in 2021.

5 All Hands InCK based engagement and enrollment payments on implementation of Unite Us, timely launch of closed-loop referrals, referral activity, and number of months CBOs remain open to receiving referrals.

vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis (DTaP); three polio (IPV); one measles, mumps, and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB); one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu). e. Primary care providers are eligible for $3.00 per-member-per-month if they reach the HEDIS 90th percentile. They may earn a partial incentive if they achieve 75% of the HEDIS performance rate of an increase of 4.0–6.9% over the previous year. f. TCOC is calculated for eligible children for each Managed Care Organization plan for each year. g. This methodology assumes a 2% trend line for TCOC, which is consistent with historical performance. h. Primary care providers are eligible for $1.50 PMPM if they reach performance benchmarks for TCOC. It was not clear what the incentive amount is for reductions in ED utilization or inpatient utilization. i. As of the end of 2023, All Hands InCK was still refining performance measurement and payment methodology for behavioral health providers and CBOs, e.g., a CBO measure tracking how children received non-health core child services (e.g., housing, education, food security, childcare).

Source: 1. All Hands InCK 438.6(c) Preprint.

In 2022, the All Hands InCK APM was limited to beneficiaries with a PCP in the All Hands InCK provider network. By the end of 2023, All Hands InCK expanded eligibility to all PCPs caring for eligible beneficiaries. All Hands InCK also increased the total incentive payments for PCPs from $1.50 PMPM to $4.50 PMPM. It anticipates these changes may increase provider engagement and help it achieve long-term sustainability beyond the model. At the end of 2023, All Hands InCK had distributed $246,421 in incentive payments to the provider network based on performance on primary care measures. They had identified behavioral health measures for future years and were still refining appropriate measures for CBOs.

CHALLENGES WITH APM IMPLEMENTATION

All Hands InCK experienced several challenges with APM implementation. These included:

- **Incorrectly attributing beneficiaries to PCPs or inability to attribute beneficiaries to PCPs**. This challenge meant All Hands InCK was unable to share interim performance data with network providers and delayed distribution of 2022 incentive payments.
- **Developing performance measurement and payment methodology for behavioral health providers**. It took longer than anticipated due to inconsistent quality and availability of behavioral health claims.
- **Establishing mechanisms to calculate performance for CBO incentives**. All Hands InCK CBOs typically use manual processes to collect data and often report data at the family-level (not individual-level by beneficiary). This complicates the attribution of performance measures to individual beneficiaries.

Local Model Design and Implementation Status at the End of 2023

All Hands InCK used a combination of Medicaid claims data and results of a screen-based assessment to assign beneficiaries to a SIL. It relied on partner community-based providers and MCOs to provide integrated care coordination and case management (Exhibit 2.4).

Exhibit 2.4. All Hands InCK engaged 4% of attributed beneficiaries in screen-based assessments, with Service Integration Coordinators serving up to 26 beneficiaries each month.

APPROACH TO KEY MODEL ELEMENTS[1,2]

1 NEEDS ASSESSMENT AND SIL STRATIFICATION

All Hands InCK used a sequential hybrid approach for needs assessment and SIL stratification.

- Initial SIL assigned is determined via Medicaid claims. Then, final assignment is determined via screen-based assessment.

2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT

Service Integration Coordinators served as single points of contact for beneficiaries in SILs 1 and 2 and (in rare cases) SIL 3.

MCO care coordinators typically served as single points of contact for beneficiaries in SIL 3.

IMPLEMENTATION STATUS AT THE END OF 2023[1,2]

All Hands InCK engaged

1,776 (4.3%)

→ **of attributed beneficiaries in a screen-based assessment by the end of 2023.**

Service Integration Coordinators provided services to up to

26

→ **beneficiaries per month.**

Key: InCK=Integrated Care for Kids; SIL=Service Integration Level; MCO=Managed Care Organization.

Sources: 1. Award recipient-submitted Quarter 1 (Q1) 2022–Q4 2023 SIL data files. 2. All Hands InCK 2022 Annual Progress Report.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

All Hands InCK's approach for needs assessment and SIL stratification included three steps:

1. Stratify beneficiaries into an initial SIL via Medicaid claims.
2. Service Integration Coordinators engage beneficiaries with a recent ED visit and those with a preliminary SIL 2 assignment to complete a screen-based assessment. MCO care coordinators contact beneficiaries in SIL 3 to complete screen-based assessments.[6]
3. Combine results from screen-based assessments with Medicaid claims to produce a final SIL assignment.[7]

6 Beneficiaries or caregivers engaging in All Hands InCK complete one of two screen-based assessments. One version is for beneficiaries ages 0-17; this version has 20 questions about the child's experiences with depression, anxiety, and substance use disorder.

7 If a beneficiary does not complete a screen-based assessment, All Hands InCK will consider the initial assignment via administrative assessment final.

All Hands InCK contracts with three community-based partners to conduct outreach to and complete screen-based assessments for beneficiaries in SILs 1 and 2. These partner organizations have been providing services in the attributed region for years, and beneficiaries recognize and trust them. MCOs conduct outreach to and complete screen-based assessments for SIL 3 beneficiaries.

Implementation status and reach at the end of 2023

All Hands InCK successfully implemented its approach to needs assessment and SIL stratification. In 2023, All Hands InCK adjusted its SIL stratification approach to lower the threshold for assignment to SIL 2 to engage more beneficiaries and to increase the number of SIL 2 beneficiaries from 6% to match the original projection of 10%; however, at the end of 2023, 6% of its population continued to be assigned to SIL 2.

All Hands InCK steadily increased its rate of successful screen-based assessment during the first two years of implementation. As of the end of 2023, it had conducted screen-based assessments with 4.3% of its attributed population. Because All Hands InCK focused its outreach efforts on beneficiaries with recent ED visits and on beneficiaries assigned to SIL 2, the screen-based assessments were more likely to include beneficiaries with higher needs.

Efforts to increase beneficiary engagement

All Hands InCK encountered several challenges with engaging beneficiaries in screen-based assessments. From 2022 to 2023 it adjusted its approach which resulted in increased completion of screen-based assessments – from 739 in 2022 to 1,199 in 2023 (Exhibit 2.5).

Exhibit 2.5. All Hands InCK implemented strategies in 2023 to increase completion of screen-based assessments, but challenges persist.

Challenge[1,2]	Example	Strategy	Outcome
Inaccurate or outdated contact information	Medicaid beneficiaries move frequently and may change phone numbers.	Conducted in-person outreach including at vaccine and dental clinics, food pantries, and schools.	Calls to Helpline increased after in-person outreach events.
Faulty information technology	NowPow's text messages and emails about screen-based assessments did not always display correctly on mobile devices.	Began exploring REDCap as an alternative to disseminate and collect the screen-based assessments.[a]	Still unresolved at the end of 2023.
Beneficiaries and families did not recognize or trust the name All Hands InCK	Only 7 of 5,720 families who received an email or text message completed screen-based assessments through the online platform.	Built on name recognition of Lurie Children's Hospital and IL Medicaid; attended partner agency events; and engaged family advisory groups and CHWs for outreach.	Increased the number of screen-based assessments completed by 62%.

Key: IL=Illinois; InCK=Integrated Care for Kids; REDCap=Research Electronic Data Capture; CHW=Community Health Worker.

Note: a. REDCap is a secure web application for building and managing online surveys and databases. It is designed to support online and offline data capture for research.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. All Hands InCK 2023 Annual Progress Report.

APPROACH TO SERVICE INTEGRATION

Service Integration Coordinators employed by community-based partners provide integrated care coordination to beneficiaries in SIL 1, as needed, in SIL 2 and in rare cases, SIL 3. Typically, MCO care coordinators provide integrated case management to beneficiaries in SIL 3. All Hands InCK partners with other providers in its attributed region through its Partnership Council to avoid duplication of services. All Hands InCK uses results of the screen-based assessment to generate a list of Core Child Services (CCS) referrals for each family through NowPow. Service Integration Coordinators then share the referral list with beneficiaries. Beyond this initial referral list, Service Integration Coordinators sometimes provide warm handoffs to providers and assist families in applying for programs to address urgent non-health CCS needs, such as food and housing.

Implementation status and reach at the end of 2023

As of October 2023, each Service Integration Coordinator provided service integration to a range of 3–26 beneficiaries per month, which is a lower caseload than the 60–90 initially anticipated. By the end of the first two years of model implementation, All Hands InCK provided integrated care coordination and case management to a total of 553 beneficiaries.

Efforts to increase beneficiary engagement

All Hands InCK encountered challenges engaging beneficiaries in integrated care coordination and case management (Exhibit 2.6). Over the course of 2023 it implemented several strategies to address these challenges.

Exhibit 2.6. All Hands InCK implemented strategies to improve beneficiary engagement in care coordination and case management with limited impact.

Challenge[1]	Example	Strategy	Outcome
Potential for duplication of care coordination and case management	Some beneficiaries are eligible for service integration from both All Hands InCK and other programs, such as their MCO and Illinois' Pathways to Success (https://hfs.illinois.gov/medicalproviders/behavioral/pathways.html).	Service Integration Coordinators maintain close communication with MCOs to coordinate program eligibility and identify beneficiaries who are eligible for more than one program. They also confirm the single points of contact, e.g., this may be the Service Integration Coordinator, the MCO care coordinators, or a Pathways Wraparound Coordinator depending on whether a beneficiary is assigned to SIL 2 or 3 or eligible for Pathways.	This challenge was ongoing as of the end of 2023.
Staffing churn	All Hands InCK often had to backfill Service Integration Coordinator positions.	Increased Service Integration Coordinator salaries.	All Hands InCK was fully staffed with 12 Service Integration Coordinators briefly in 2022, but otherwise this challenge was ongoing.
Inability to track referrals accurately	Service Integration Coordinators and network partners were unable to successfully track whether beneficiaries were able to access services through referrals.	Started using NowPow in 2023 and enrolled 15 partner organizations; hired a social work intern to monitor referral follow-up through NowPow.	By the end of 2023, Service Integration Coordinators had completed 25 of more than 100 closed loop referrals.[a] However, network partners did not complete any of the 130+ closed loop referrals provided to families.[b]

Key: InCK=Integrated Care for Kids; MCO=Managed Care Organization.

Note: a. For All Hands InCK, a closed loop referral includes several steps: Service Integration Coordinators identify beneficiary/caregiver needs; Service Integration Coordinators provide referrals to beneficiaries/caregivers and document needs electronically to alert organizations of needs; organizations receive referrals, follow up with beneficiaries/caregivers, and track the status of their support; beneficiaries receive support and services; Service Integration Coordinators confirm and track that beneficiaries'/caregivers' needs are resolved. b. As of the end of 2023, some network providers reported that they did not have the necessary access to NowPow to complete closed-loop referrals. Network partners' inability to access NowPow may have contributed to the incomplete closed loop referrals. The evaluation did not have information on other factors.

Source: 1. Interviews and site visits conducted in 2023.

Early Impacts on Health Care Outcomes

As described above, All Hands InCK made considerable progress in the implementation of key model components and successfully engaged almost 5% of its attributed population in screen-based assessments. Given these milestones, it is feasible to detect population-level impacts on healthcare outcomes. The methodology behind this assessment is further discussed in Appendix A. We summarize the impacts from 2022–2023 below:

- The rate of well-child visits per 1,000 beneficiaries per quarter increased by 174 (from 69 to 243) per 1,000 beneficiaries per quarter (Exhibit 2.7). The comparison group also experienced an increase of 174 visits (from 64 to 238) per 1,000 beneficiaries per quarter during the same period. This suggests that All Hands InCK did not meaningfully influence well-child visits relative to usual care in the first two performance years.

- The rate of outpatient emergency department (ED) visits increased by 89 visits (from 66 to 155) per 1,000 beneficiaries per quarter (Exhibit 2.7). The rate of ED visits in the comparison group increased by 83 visits (from 59 to 143) per 1,000 beneficiaries per quarter during the same period. There was no statistically significant difference between the two groups in the amount they increased ED visits, suggesting that All Hands InCK did not meaningfully influence ED visits relative to usual care in the first two performance years.
- We are unable to draw conclusions about impacts on average total cost of care for All Hands InCK because the comparison group was not sufficiently similar at baseline for this outcome (Exhibit 2.8).[8]

Exhibit 2.7. **All Hands InCK does not exhibit statistically significant impacts on well-child or outpatient emergency department visits.**

Measure	Utilization Impact Estimates (number per 1,000 beneficiaries per quarter)						
	InCK Baseline	InCK Intervention	Comparison Baseline	Comparison Intervention	Impact Change	95% CI	% Change
Well-Child Visits	68.8	242.7	64.1	237.9	0.1	(-2.1, 2.3)	0.2%
Outpatient ED Visits	65.6	155.0	59.3	142.7	5.9	(-2.0, 13.9)	9.0%

Key: CI=Confidence Interval; ED=Emergency Department; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Source: 1. Interim T-MSIS Analytic Files, 2020–2023.

Exhibit 2.8. **All Hands InCK's impact on total cost of care cannot be determined.**

Measure	Average Total Cost of Care Impact Estimates (dollars per beneficiary per quarter)						
	InCK Baseline	InCK Intervention	Comparison Baseline	Comparison Intervention	Impact Change	95% CI	% Change
TCOC ⚠	$205.96	$361.17	$213.77	$362.18	$6.80	(-$0.69, $14.29)	3.3%

Key: CI=Confidence Interval; InCK=Integrated Care for Kids; TCOC=Total Cost of Care; T-MSIS=Transformed Medicaid Statistical Information System.

Note: ⚠=poor alignment between the attributed population and the comparison group.

Source: 1. Interim T-MSIS Analytic Files, 2020–2023.

Conclusion

All Hands InCK made significant progress in implementing the model through 2023 and had reached enough beneficiaries that inferring model impacts was plausible. Despite this, as of 2023 All Hands InCK had not impacted well-child visits or ED visits.

Several factors likely contributed to the lack of impacts for these measures. Slow implementation limited the ability of model activities to affect health care utilization in the first two years of the model (2022–2023). Despite full implementation of needs assessment and SIL stratification, successfully contacting beneficiaries and engaging them in model activities was more challenging than anticipated. Finally, Service Integration Coordinators reported prioritizing urgent non-health needs, such as food and housing, when they first started working with families. Well-child visits and ED visits were lower priority for families.

8 The estimates do not pass the parallel trends test. This means that All Hands InCK and the comparison group were not similar enough at baseline, making it difficult to confidently say whether All Hands InCK had an impact on this outcome due to the model.

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Three

IL-Village InCK

By the end of 2023, IL–Village (Village) InCK had made notable progress on model implementation, including implementing its needs assessment and Service Integration Level (SIL) stratification approach (Exhibit 3.1). Village InCK conducted screen-based assessments with 12.6% of its attributed population (Exhibit 3.2). It also successfully implemented its Alternative Payment Model (APM) and had contracts in place with two of the four Managed Care Organizations (MCOs) that cover the attributed population. Village InCK encountered early challenges engaging MCOs and providers in the APM and engaging beneficiaries in integrated care coordination and case management. Appendix D includes detailed descriptive information about Village InCK's attributed population and historical utilization in the region.

Exhibit 3.1. Village InCK's attributed population included more than 11,000 beneficiaries in rural Illinois, with few beneficiaries in SIL 2 or 3.

AWARD RECIPIENT

IL–Village InCK

LEAD ORGANIZATION

Egyptian Health Department

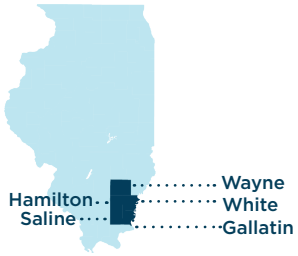
TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

11,366[1]

Children (ages 0–20) enrolled in Medicaid or CHIP[a]

ATTRIBUTED REGION

Five adjacent rural counties in southern Illinois: Gallatin, Hamilton, Saline, Wayne, and White



ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[b,2]

11,257 → 99.0%

SIL 1 beneficiaries

Attributed beneficiaries with low CCS needs who have not been stratified into either SIL 2 or SIL 3. Receive referrals and care coordination from Service Integration Coordinators/single points of contact, as needed.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	1,325	9,932

87 → 6.0%

SIL 2 beneficiaries

Attributed beneficiaries with involvement in at least two CCS areas, i.e., moderate CCS needs. Receive referrals and integrated care coordination from Service Integration Coordinators/single points of contact and support (including shared care plans) from additional Village InCK staff, including a primary care support specialist and wellness coaches, as needed.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	87	N/A[c]

22 → 0.2%

SIL 3 beneficiaries

Attributed beneficiaries with involvement in at least two CCS areas and who are at risk of OOHP or have had prolonged or multiple inpatient admissions in the last 12 months, i.e., high CCS needs. Receive referrals and integrated case management support from Service Integration Coordinators/single points of contact and support (including shared care plans) from additional Village InCK staff, including a primary care support specialist and wellness coaches, as needed.

Administrative assessment only	Screen-based assessment	No assessment[d]
N/A[c]	21	Less than 11[d,e]

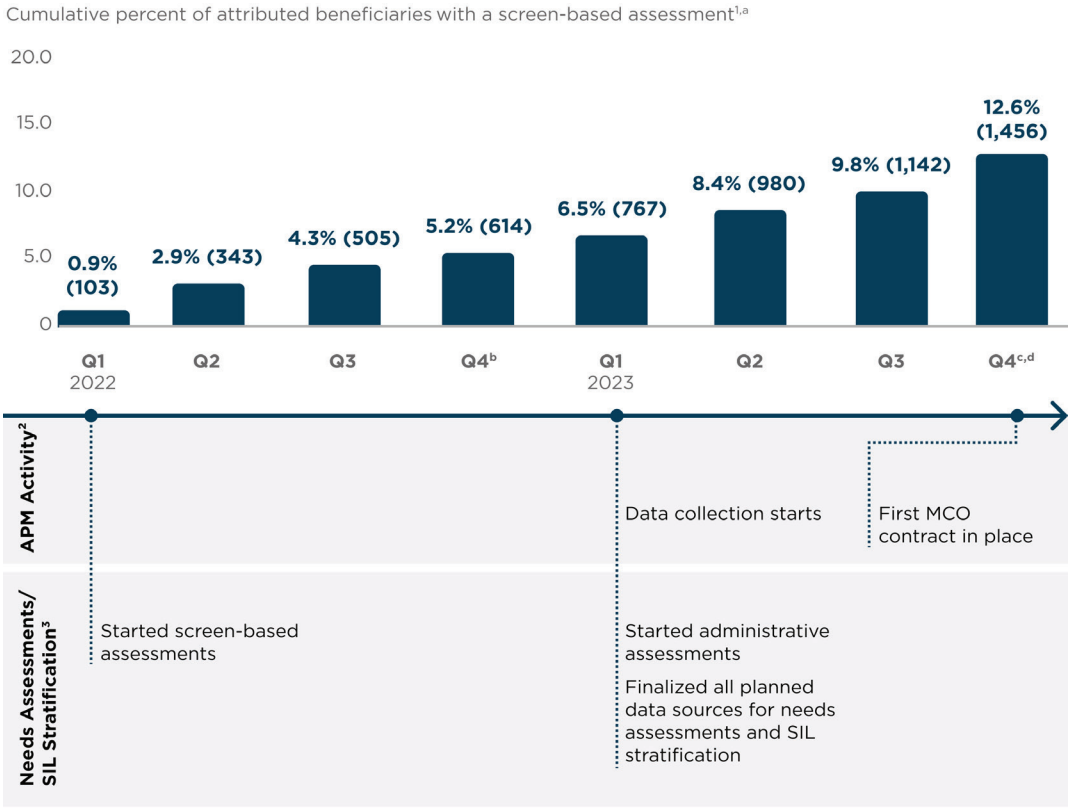
Key: IL=Illinois; InCK=Integrated Care for Kids; CHIP=Children's Health Insurance Program; SIL=Service Integration Level; CCS=Core Child Services; OOHP=Out of Home Placement; Q=Quarter.

Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid or CHIP for at least 1 month during the model implementation period while residing in the attributed region. b. The evaluation counted the number of beneficiaries in a SIL based on their highest confirmed SIL assignment during the year. Beneficiaries in SIL 1 include those without a confirmed SIL assignment or a needs assessment. c. Village InCK does not finalize a SIL assignment without the completion of a screen-based assessment. d. Precise number suppressed due to small sample size. e. Confirmed SIL assignment requires receipt of assessment, however the type of assessment administered could not be determined for these beneficiaries due to an anomaly in the data submission.

Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

The evaluation assessed the design and implementation of both the APM and the needs assessment and SIL stratification activities for each award recipient to define reach of model activities. Village InCK's APM is designed to be population wide. Village InCK was working toward establishing contracts with all the MCOs serving their attributed region at the end of 2023. Village InCK uses a concurrent hybrid approach to needs assessment and SIL stratification using both Medicaid claims and data from a screen-based assessment. Village InCK does not consider a SIL assignment final until both types of assessments are completed. As a result, 87.4% of their attributed population did not have a confirmed SIL assignment in 2023. For Village InCK, the evaluation determined that the number of beneficiaries assigned to any SIL (SIL 1, 2, or 3) who have ever received a screen-based assessment captures beneficiaries with whom frontline staff have engaged and is our best proxy for engagement in model services for Village InCK. These are the beneficiaries for whom we expect engagement to contribute to changes in model outcomes (Exhibit 3.2).

Exhibit 3.2. Village InCK engaged over 12% of their attributed population in a screen-based assessment in the first two years and made progress on APM implementation.



Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; Q=Quarter; SIL=Service Integration Level.

Notes: a. Village InCK conducts screen-based assessments with all beneficiaries regardless of SIL. b. The Village InCK attributed population in 2022 was 11,880. c. The Village InCK attributed population in 2023 was 11,366. d. As of the end of 2023, Village InCK engaged a total of 1,456 beneficiaries in InCK Model activities. According to the evaluation's estimates, well-child visits would need to increase by 430 visits to detect a population-level impact. See Appendix A for additional detail on this methodology.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. Village InCK 2023 Annual Progress Report. 3. Award recipient-submitted Standard Operating Procedure documents (2022–2023).

Village InCK APM

The Village InCK APM includes a per-member-per-month (PMPM) incentive payment for primary care providers (PCPs) to increase receipt of preventive care (for a maximum of $3.00 PMPM) (Exhibit 3.3). It also includes an incentive payment for behavioral health providers to increase follow-up after hospitalization for mental illness (for a maximum of $3.00 PMPM). Egyptian Health Department receives an incentive payment if Village InCK staff complete a shared care plan for 60% or more of beneficiaries assigned to SIL 2 or 3 (for $1.50 PMPM). It is a Health Care Payment Learning & Action Network Category 2C APM.[9] By the end of 2023 Village InCK had contracts in place with two of the four MCOs that cover the attributed population. Combined, these two MCOs cover approximately 50% of the attributed beneficiaries. Village InCK was also in discussion with the other two MCOs to adopt the InCK-specific APM. It had not yet begun distributing APM payments at the end of 2023.

Exhibit 3.3. Village InCK's APM focuses on preventive care, behavioral health care, and care coordination.

Measure Type	Measure Details[1,a]	Performance Benchmark[1]
Preventive	Well-child visits in the first 30 months of life[b]	1% improvement from 2022 performance[c,d]
	Child and adolescent well-care visits	
Behavioral Health	Follow-up after hospitalization for mental illness[e]	1% improvement from 2022 performance[f,g]
Care Coordination	Shared care plan	Shared care plan created for 60% or more of SIL 2 and SIL 3 population[h]

Key: InCK=Integrated Care for Kids; APM=Alternative Payment Model; SIL=Service Integration Level.

Notes: a. The design of Village InCK's APM has remained largely consistent over time. For additional details please refer to the InCK Model Evaluation Report 2, available at: https://cms.gov/priorities/innovation/data-and-reports/2024/inck-model-second-eval-rpt. b. The National Committee for Quality Assurance (NCQA) develops, maintains, and supports Healthcare Effectiveness Data and Information Set (HEDIS) measures including well-child visits in the first 30 months of life (W30). c. All primary care providers (PCPs) in the attributed region are eligible to receive incentive payments. d. PCPs are eligible to receive up to $3.00 per-member-per-month (PMPM) for all children in their panel in the age group of the measure. e. Follow-up after hospitalization is the percentage of discharges for persons ages 6 or older who were hospitalized for a principal diagnosis of mental illness or intentional self-harm and had mental health follow-up services. Two rates are reported: the percentage of discharges for which the beneficiary received follow-up within 30 days after discharge; or the percentage of discharges for which the person received follow-up within seven days after discharge. f. All PCP and behavioral health care providers in the attributed region are eligible for this incentive. g. Providers are eligible to earn up to $3.00 PMPM for each child who meets the criteria. h. The Village InCK network can earn this incentive for all beneficiaries assigned to SIL 2 or 3. Egyptian Health Department can earn up to $1.50 PMPM for this activity.

Source: 1. Village InCK 438 2023 Preprint.

IMPLEMENTATION STATUS AT THE END OF 2023

CMS approved Village InCK's 438 Preprint for its APM in 2022, and Village InCK started implementing the APM in January 2023. It began collecting and sharing performance data with eligible providers by the end of 2023. It anticipated distributing incentive payments in 2024.

CHALLENGES WITH APM IMPLEMENTATION

In addition to its challenges engaging two of four MCOs, Village InCK has found it challenging to engage providers in its APM. Village InCK staff reported that providers expressed concern about their ability to earn incentive payments due to the requirement

9 The Health Care Payment Learning & Action Network Framework categorizes a quality incentive payment linked to performance metrics as 2C. More information is available at: https://hcp-lan.org/apm-framework/.

that beneficiaries opt into the APM.[10] To address these concerns, Village InCK requested to remove the beneficiary opt-in requirement for incentive payments in the next 438 Preprint.

Local Model Design and Implementation Status at the End of 2023

Village InCK uses a concurrent hybrid approach to combine Medicaid claims data with screen-based assessments to assign beneficiaries to SILs (Exhibit 3.4). Service Integration Coordinators support all beneficiaries but provide more robust services to beneficiaries in SIL 2 and SIL 3. Additional detail on each of these model activities and implementation challenges follows.

Exhibit 3.4. Village InCK engaged nearly 13% of attributed beneficiaries in screen-based assessments, with each Service Integration Coordinator serving up to 11 beneficiaries assigned to SIL 2 and SIL 3.

APPROACH TO MODEL ELEMENTS[1,2]	IMPLEMENTATION STATUS AT THE END OF 2023[1,2]
1 NEEDS ASSESSMENT AND SIL STRATIFICATION Concurrent hybrid SIL stratification approach, combining Medicaid claims data with screen-based assessments, to assign beneficiaries to SILs. • Village InCK only finalizes SIL assignment for beneficiaries who have completed a screen-based assessment.	**Village InCK engaged** **1,456 (12.6%)** of attributed beneficiaries in a screen-based assessment by the end of 2023.
2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT Employs 10 Service Integration Coordinators, two primary care support specialists, and one wellness coach. Service Integration Coordinators serve as beneficiaries' single points of contact. Beneficiaries in SIL 2 and SIL 3 receive additional support from non-Service Integration Coordinator staff to address beneficiaries' needs and develop shared care plans.	**Service Integration Coordinators had a caseload of approximately** **1,100** beneficiaries across all SILs but provide integrated care coordination and case management to an average of 11 beneficiaries assigned to SIL 2 or SIL 3

Key: InCK=Integrated Care for Kids; SIL=Service Integration Level; Q=Quarter.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

10 Village InCK required beneficiaries to confirm their participation in the model, or "opt in," for them to be included in APM performance metrics in 2022 and 2023.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

Village InCK's approach for needs assessment and SIL stratification includes three steps:

1. Village InCK randomly assigns a list of beneficiaries to each Service Integration Coordinator monthly. Service Integration Coordinators attempt to contact beneficiaries to opt into the model.

2. Service Integration Coordinators contact beneficiaries to complete multiple screening tools that make up the screen-based assessment, documenting those results on Health EC.[11,12,13]

3. Village InCK uses screening data and Medicaid claims data to manually stratify beneficiaries into SILs.

Implementation status and reach at the end of 2023

Village InCK steadily increased the number of beneficiaries with a completed screen-based assessment over the first two years of the model. Between 2022 and 2023, Village InCK engaged an average of 182 beneficiaries per quarter in screen-based assessments, for a total of 1,456 beneficiaries (12.6% of its attributed population) at the end of 2023.[14] Because Village InCK conducted outreach efforts to beneficiaries assigned to all SILs (SIL 1, 2, and 3), the screen-based assessments included beneficiaries with a range of low-to-high needs.

Efforts to increase beneficiary engagement

Village InCK implemented strategies to increase beneficiary engagement in screen-based assessments (Exhibit 3.5). Through these efforts, Village InCK increased completion rates over the first two implementation years: 2022 (607) and 2023 (1,057).[15]

11 HealthEC is Village InCK's care management platform.

12 At least one care coordination program in Illinois overlaps with Village InCK: Pathways to Success, a program for Medicaid enrolled children under the age of 21 in Illinois who have complex behavioral health needs and could benefit from additional support. It provides access to intensive care coordination and additional home- and community-based services. Additional information is available at: https://www.pathways-2-success.org/.

13 Village InCK's screen-based assessment is referred to locally as the Village InCK Screening Tool.

14 The number of unique beneficiaries with a screen-based assessment as documented in the 2022-2023 Award recipient-submitted SIL data.

15 The number of screen-based assessments ever completed, which may include beneficiaries who have received more than one screen-based assessment, as documented in award recipient-submitted 2022-2023 SIL data files.

Exhibit 3.5. Village InCK nearly doubled the number of engaged beneficiaries from 2022 to 2023.

Challenge[1]	Example	Strategy	Outcome[2]
Inaccurate or outdated contact information	Medicaid beneficiaries move frequently and may change phone numbers.	Conducted more in-person outreach including setting up at primary care clinics, WIC offices, and other events where families gather.	Village InCK nearly doubled the number of screen-based assessments completed from 607 in 2022 to 1,057 in 2023.
Beneficiaries and families were not responsive to phone calls or emails	Young adults were particularly unresponsive to telephone calls.	Expanded use of texts and virtual outreach through platforms such as NowPow and Unite Us.[a]	
Beneficiaries and families were reluctant to answer screening questions	Beneficiaries reported survey fatigue, which affected response quality and completeness.	Engaged community partners and family advisory groups to improve outreach strategies and increase completion of needs assessments.	
Beneficiaries and families did not recognize or trust the name "Village InCK"	Families with child welfare involvement tended to be suspicious of new programs, due to mandatory reporting requirements and fear of losing custody.	Modified outreach materials to include the Egyptian Health Department logo; established referral pathways with the Department's WIC program and the local child welfare agency.	Beneficiaries referred from a trusted source were more likely to answer the phone and complete a screen-based assessment than were beneficiaries who received cold calls.

Key: InCK=Integrated Care for Kids; WIC=Supplemental Nutrition Program for Women, Infants and Children; Q=Quarter.

Notes: a. Unite Us, a technology company that connects health and social care services, acquired NowPow in 2021. It serves as Village InCK's online, closed-loop community referral system.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

APPROACH TO SERVICE INTEGRATION

Village InCK relies on a range of staff with different roles and responsibilities to provide integrated care coordination and case management to beneficiaries assigned to all SILs (i.e., SIL 1, 2, or 3). Service Integration Coordinators serve as the single points of contact and outreach to beneficiaries following their SIL assignment. Service Integration Coordinators use information from the screen-based assessment to understand beneficiary health and non-health CCS needs and provide a list of relevant resources to families upon their initial outreach. They contact families monthly to assess whether needs are being addressed. Beneficiaries in SIL 2 and SIL 3 may also receive support from other Village InCK staff members including a primary care support specialist and wellness coaches. Some Village InCK beneficiaries may receive similar services from other programs, such as Illinois's Pathways to Success. Service Integration Coordinators coordinate with these programs to avoid duplicating services.

Implementation status and reach at the end of 2023

Each Service Integration Coordinator originally had a caseload of approximately 1,600 beneficiaries. In response, Village InCK hired additional staff to reduce each Service Integration Coordinator's caseload to 1,100 beneficiaries. Village InCK measures a Service Integration Coordinator's caseload based on the support they provide to beneficiaries (regardless of SIL). In contrast, Village InCK defines service integration as the more robust support Service Integration Coordinators provide to beneficiaries in SILs 2 and 3. Service Integration Coordinators provided service integration for 89 beneficiaries in SILs 2 and 3.[16]

16 In its 2023 Q3 Quarterly Progress Report, Village InCK reported 75 beneficiaries in SIL 2 engaged in integrated care coordination and 14 beneficiaries in SIL 3 engaged in integrated case management, for a total of 89.

Efforts to increase beneficiary engagement

Village InCK implemented several strategies to address challenges with engagement in integrated care coordination and case management (Exhibit 3.6).

Exhibit 3.6. Village InCK implemented strategies to improve beneficiary engagement in integrated care coordination and case management, but challenges persist.

Challenge[1]	Example	Strategy	Outcome[2]
Lower than anticipated enrollment in integrated care coordination and case management	Beneficiaries often refused to opt in or declined services following screen-based assessments and SIL stratification.	Continued to build trust in the community by relying on partners and attending in-person outreach.	Engaged 89 beneficiaries in SIL 2 and SIL 3 in integrated care coordination and case management.
Partners and providers unaware of services available to higher-risk beneficiaries	Some partners and providers had a poor understanding of services Village InCK could provide.	Continued to educate partners and providers about the model and how Village InCK can support beneficiaries.	
Partners and providers did not access population health platforms	Some partners and providers needed access to additional platforms (HealthEC, NowPow, Unite Us) to document referrals and other activities.	Coordinated with HealthEC software engineers to develop tailored platforms for generating and tracking beneficiary referrals and sharing information; trained partners on how to use NowPow.	

Key: InCK=Integrated Care for Kids; SIL=Service Integration Level; Q=Quarter.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. Village InCK Q3 2023 Quarterly Progress Report.

Early Impacts on Health Care Outcomes

Village InCK made considerable progress in the implementation of key model components and successfully engaged almost 13% of its attributed population in screen-based assessments. Given these milestones, it is feasible to detect population-level impacts. Additional detail on that methodology is included in Appendix A. We summarize impacts from 2022–2023 below.

- We are unable to draw conclusions about impacts on well-child visits for Village InCK because the comparison group was not sufficiently similar at baseline for this outcome (Exhibit 3.7).[17]
- The rate of outpatient emergency department (ED) visits increased by 46 visits (from 94 to 140) per 1,000 beneficiaries per quarter (Exhibit 3.7). In the comparison group, the rate of ED visits increased by 45 visits (from 88 to 134) per 1,000 beneficiaries per quarter during the same period. The lack of significant difference suggests that Village InCK did not meaningfully influence ED visits relative to usual care in the first two performance years.

17 The estimates do not pass the parallel trends test. This means that Village InCK and the comparison group were not similar enough at baseline, making it difficult to confidently say whether Village InCK had an impact on this outcome due to the model.

- The total cost of care (TCOC) increased roughly $66 (from $334 to $399) per beneficiary per quarter (Exhibit 3.8). This change is significantly less than would be expected absent InCK given the comparison group experienced a roughly $82 increase (from $323 to $405) per beneficiary per quarter over the same period. This difference of $16 represents a 4.8% decrease in TCOC relative to baseline spending for Village InCK. This difference was not driven by a decrease in inpatient or pharmaceutical costs but by a third, catch-all category (Other Services), which includes most outpatient services.[18]

Exhibit 3.7. Village InCK does not exhibit a statistically significant impact on outpatient emergency department visits. Impact on well-child visits cannot be determined.

Measure	Utilization Impact Estimates (number per 1,000 beneficiaries per quarter)						
	InCK Baseline	InCK Intervention	Comparison Baseline	Comparison Intervention	Impact Change	95% CI	% Change
Well-Child Visits ⚠	129.9	132.4	145.8	150.2	-1.9	(-6.1, 2.3)	-1.5%
Outpatient ED Visits	93.8	140.2	88.2	133.6	1.0	(-5.1, 7.1)	1.1%

Key: CI=Confidence Interval; ED=Emergency Department; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: ⚠=poor alignment between the attributed population and the comparison group.

Source: 1. Interim T-MSIS Analytic Files, 2020–2023.

Exhibit 3.8. Village InCK exhibits a 4.8% decrease in total cost of care driven by a decrease in costs associated with other services.

Measure	Average Total Cost of Care Impact Estimates (dollars per beneficiary per quarter)						
	InCK Baseline	InCK Intervention	Comparison Baseline	Comparison Intervention	Impact Change	95% CI	% Change
TCOC[a]	**$333.55**	**$399.34**	**$322.95**	**$404.61**	**-$15.87***	**(-$30.88, -$0.86)**	**-4.8%**
Other Services[b]	$219.74	$277.10	$208.10	$276.44	-$10.98*	(-$19.85, -$2.11)	-5.0%
Inpatient	$49.59	$56.54	$68.42	$71.72	$3.65	(-$15.24, $22.54)	7.4%
Pharmacy	$60.72	$57.38	$61.64	$57.26	$1.04	(-$3.22, $5.30)	1.7%

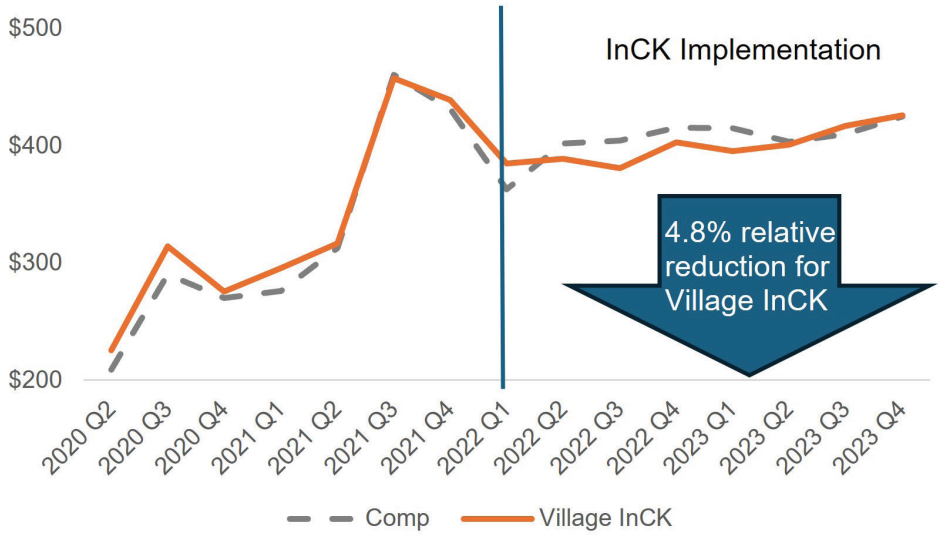
Key: CI=Confidence Interval; InCK=Integrated Care for Kids; TCOC=Total Cost of Care; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: * p < .05; a. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and one component for Long Term Care spending is not shown. b. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Source: 1. Interim T-MSIS Analytic Files, 2020–2023.

18 A fourth cost component, consisting of Long-Term Care (LTC) spending, is included in the aggregated TCOC analysis, but the evaluation does not report a separate analysis of LTC spending because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. The evaluation caps TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results.

Exhibit 3.9. **Total cost of care increased more slowly for Village InCK than comparison group.**



Key: InCK=Integrated Care for Kids; Comp=Comparison Group; Q=Quarter; T-MSIS=Transformed Medicaid Statistical Information System.

Source: Interim T-MSIS Analytic Files, 2020–2023.

Conclusion

TCOC increased more slowly in the Village InCK attributed region than it did in the comparison group in 2022 and 2023. This impact resulted in a net 4.8% reduction in total spending in Village InCK in that period. This appears to be driven by a reduction in costs in the "Other Services" category, which includes all services except inpatient and pharmacy. Some services in this category include preventive care services, such as immunizations, testing and imaging, or well-child visits. A decrease in these services would reflect a misalignment with model theory, since the intervention is designed to increase the use of high-value preventive services. However, improved care coordination could also prevent duplicate services (e.g., repeat testing or imaging), avoid medically unnecessary outpatient procedures, or reduce sick-visits to physicians. Reduction in these services would be consistent with model theory. We will further investigate this in future reports.

Several factors potentially contributed to the lack of impacts in Village InCK for ED visits. First, Village InCK Service Integration Coordinators contact all attributed beneficiaries to conduct the screen-based assessment and provide integrated care coordination (not just those in SIL 2 or SIL 3). This approach means that Village InCK does not prioritize outreach to those beneficiaries with the greatest historical needs (SIL 2 and SIL 3 beneficiaries). Second, Service Integration Coordinators report focusing on addressing families' most urgent needs first. Most often these are related to food and housing. Finally, the design and implementation of the APM may have limited its impact to date on outcome measures included in this report. For instance, the first MCO contract for the APM was not in place until Quarter 4 of 2023, and ED visits were not included in the APM.

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Four

NC InCK

NC InCK had fully implemented its needs assessment and Service Integration Level (SIL) stratification at the end of 2023 (Exhibit 4.1). Because NC InCK relies exclusively on administrative data for its SIL assignment, it confirmed SIL assignments for 100% of its attributed population.[19] NC InCK's Alternative Payment Model (APM) was fully implemented and covered the full attributed population by the beginning of 2023 (Exhibit 4.2). Beneficiaries in SIL 2 and SIL 3 received integrated care coordination and case management services from single points of contact embedded in a variety of pre-existing care management entities. North Carolina transitioned their Medicaid program from fee-for-service to managed care effective July 1, 2021, six months before the start of the InCK Model Implementation Period. NC InCK aligned its approach to some core model elements with the new managed care structure, which facilitated implementation. Appendix D includes descriptive information about NC InCK's attributed population and historical utilization in the region.

Exhibit 4.1. NC InCK's target population included more than 112,000 attributed beneficiaries as of Quarter 4 of 2023.

AWARD RECIPIENT

NC InCK

LEAD ORGANIZATION

Duke University

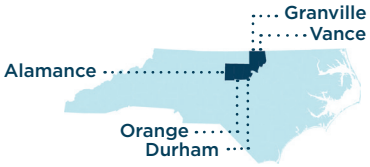
TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

112,057[1]

Children (ages 0–20) enrolled in Medicaid or CHIP[a]

ATTRIBUTED REGION

Five counties in North Carolina: three urban (Alamance, Orange, and Durham) and two rural (Granville and Vance)



ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[2]

96,886 → 86.4%

SIL 1 beneficiaries

Attributed beneficiaries meeting neither SIL 2 nor SIL 3 criteria assessed using administrative data from Medicaid, DPI, DPS, SDI, and community referrals (e.g., children without need in physical health, behavioral health, early childhood services, functional symptoms and impairments, education or foster care). Do not receive care coordination.

Administrative assessment only	No assessment
95,959	927[b]

9,164 → 8.2%

SIL 2 beneficiaries

Attributed beneficiaries with demonstrable health complexity and contextual risks in at least two out of the three of the following core domains: education, socioeconomic need, and guardian/parent needs (for example, disability or behavioral health needs). Receive integrated care coordination from single points of contact.

Administrative assessment only	No assessment
9,164	N/A[c]

6,007 → 5.4%

SIL 3 beneficiaries

Attributed beneficiaries who are experiencing OOHP at the time of SIL assignment, have had recent OOHP, have specific indicators of rising risk towards OOHP (including hospitalization), or have demonstrable health complexity and contextual risks across all three core domains listed in SIL 2. Receive integrated case management from single points of contact.

Administrative assessment only	No assessment
6,007	N/A[c]

Key: InCK=Integrated Care for Kids; NC=North Carolina; CHIP=Children's Health Insurance Program; SIL=Service Integration Level; DPI=Department of Public Instruction; DPS=Department of Public Safety; SDI=Social Deprivation Index; OOHP=Out of Home Placement; Q=Quarter.

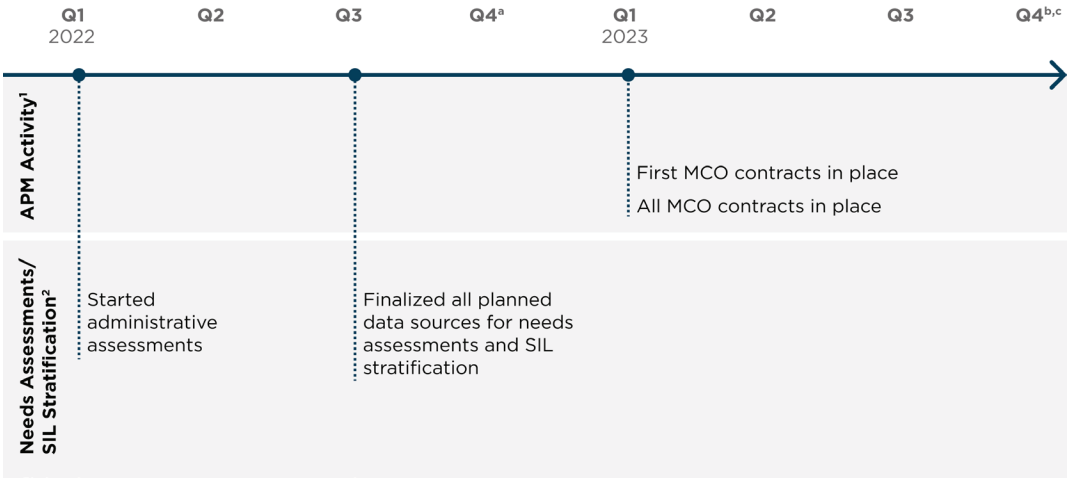
Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid or CHIP for at least 1 month during the model implementation period while residing in the attributed region. b. The evaluation considers these beneficiaries SIL 1 since they did not receive an administrative assessment during the reporting period due to migration into and out of the attributed region or they did not have sufficient data to conduct a needs assessment. c. NC InCK uses only administrative data to assign beneficiaries to a SIL.

Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

19 NC InCK originally planned to also use food security and housing stability screening data collected by MCOs. As of 2023, MCOs were not systematically collecting and reporting those data, so NC InCK instead used the Social Deprivation Index data as a proxy for food insecurity and housing instability.

The evaluation assessed the design and implementation of both the APM and the needs assessment and SIL stratification activities to define reach of model activities. NC InCK's APM is population wide and was fully implemented by the end of 2023. NC InCK used a fully data-driven approach to needs assessment and SIL stratification. They did not administer screen-based assessments and therefore the evaluation cannot report on that measure. The evaluation uses NC InCK's reported number of beneficiaries receiving integrated care coordination and case management, which NC InCK began reporting in 2023, to identify beneficiaries who have engaged in model activities (Exhibit 4.2). By Q3 of that year, NC InCK provided integrated care coordination and case management to 1.6% of its attributed population.

Exhibit 4.2. NC InCK finalized all planned data sources and had all MCO contracts in place by Q1 2023.



Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; NC=North Carolina; Q=Quarter; SIL=Service Integration Level.

Notes: a. NC InCK's attributed population was 109,945 beneficiaries in 2022. b. NC InCK's attributed population was 112,057 in 2023. c. As of the end of 2023, NC InCK engaged a total of 1,816 beneficiaries in InCK Model activities. According to the evaluation's estimates, well-child visits would need to increase by 2,586 visits to detect a population-level impact. See Appendix A for additional detail on this methodology.

Sources: 1. Site visits and interviews conducted in 2023. 2. Award recipient-submitted Standard Operating Procedure documents (2022–2023).

NC InCK APM

NC InCK's APM is an incentive payment with six quality measures focused on screening for upstream drivers of health, screening for clinical depression and follow-up, use of preventive services, reduction in utilization, and care plan completion (Exhibit 4.3). Payments were made in three tiers based on provider performance. NC InCK also tracks provider performance on other measures such as total cost of care (TCOC) and shares performance data with providers. The NC InCK APM is a Health Care Payment Learning & Action Network Category 2C APM.[20] At the end of 2023, NC InCK had contracts in place with all MCOs serving beneficiaries in the attributed region. They anticipated beginning to distribute payments in 2024.

20 The Health Care Payment Learning & Action Network Framework categorizes a quality incentive payment linked to performance metrics as 2C. More information is available at: https://hcp-lan.org/apm-framework/.

Exhibit 4.3. NC InCK's APM focuses on six quality measures.[a]

Measure Type	Measure Details	Performance Benchmark[1,b,c,d]
Care Coordination	Care plans for beneficiaries in SIL 2 and SIL 3	Complete care plan with 10% of SIL 2 and 30% of SIL 3 beneficiaries to earn full incentive[e]
Preventive Care	Well-child visits in the first 15 months of life[f]	15% increase from baseline performance rate for Black/African American children to earn full incentive[g]
Behavioral Health	Screening for clinical depression and follow-up plan: Ages 12–17	Documented on 60% of panel to earn full incentive[h]
Utilization	Ambulatory care: Emergency department visits	5% decrease from 2-year baseline to earn full incentive[i]
Upstream Drivers of Health	Food insecurity and housing stability screening	Documented on 60% to earn full incentive[j]
	Kindergarten readiness promotion bundle	

Key: APM=Alternative Payment Model; SIL=Service Integration Level; InCK=Integrated Care for Kids; NC=North Carolina.

Notes: a. For more information about NC InCK's APM design and implementation see the InCK Model Evaluation Report 2, available at: https://cms.gov/priorities/innovation/data-and-reports/2024/inck-model-second-eval-rpt. b. All providers serving beneficiaries in the attributed population are eligible for the incentive payments. c. The exact payment amounts were specified in contracts between the Managed Care Organizations and specific provider practices. The evaluation does not have access to this information. d. Providers receive payment for reporting or documenting completion of the kindergarten readiness bundle, food insecurity and housing instability screening, shared action plans and depression screening. Payments are tied to performance on emergency department visits and reduction in disparities in well-child visits 0-15 months. NC InCK also tracks provider performance on other quality measures and shares performance data with providers. These measures include: Kindergarten readiness rate, food insecurity rate, housing instability rate, well-child visits 15 – 30 months, and total cost of care. e. Lower completion rates earn partial incentives. f. The only measure that changed in 2022 was well-child visit rate, which was changed from a visit between 15-30 months to a visit in the child's first 15 months, as the field is likely more knowledgeable of and comfortable with the 15-month measure, most available historical data are based on this measure, and there are more research-based interventions available to improve this rate. g. Providers can earn 50% of the full incentive if they increase well-child visit rates by 5% and 75% of the full incentive if they increase well-child visit rates by 10%. h. Providers can earn 50% of the incentive if the rate documented on their panel is 20% and 75% of the incentive if the rate documented on their panel is 40%. i. Providers can earn 75% of the incentive if they decrease the rate by 2.5%. If they keep rates stable relative to the baseline, they earn 50% of the incentive. j. Providers can earn 50% of the incentive if documented on 20% of their panel and 75% of the incentive if documented on 40% of their panel. k. Comparison group data are only available for well-child visits in the first 30-months of life, ambulatory care: emergency department visits, screening for clinical depression and follow-up plan, and total cost of care.

Source: 1. NC InCK Performance Measures Technical Specifications Manual. Available at: https://ncinck.org/wp-content/uploads/2023/10/NC.InCK-Performance-Measure-Technical-Specifications-Manual.pdf

IMPLEMENTATION STATUS AT THE END OF 2023

NC InCK leveraged the concurrent managed care transition to establish their APM with each of the MCOs serving their attributed population. The MCOs included the InCK APM in their contracts with three clinically integrated networks that served the attributed population, resulting in a population-wide APM. The MCOs pooled performance data so providers could see their performance on InCK APM measures across all five MCOs. NC InCK launched its APM on January 1, 2023, and shared performance data through 2023 with participating providers. NC InCK planned to begin distributing payments in 2024. NC Medicaid and the NC InCK Lead Organization created resources for providers on data sources and billing codes to support performance measures and to communicate how clinical practices might improve their performance.

Local Model Design and Implementation Status at the End of 2023

NC InCK used an entirely data driven approach to needs assessment and SIL stratification. This approach resulted in 100% of the attributed population having a confirmed SIL assignment following a standardized systemic approach for population health management. Single points of contact were embedded in existing care management entities, including both MCOs and non-health Core Child Services providers (Exhibit 4.4).

Exhibit 4.4. NC InCK provided integrated care coordination and case management to nearly 2% of its attributed population.

APPROACH TO KEY MODEL ELEMENTS

1 NEEDS ASSESSMENT AND SIL STRATIFICATION

NC InCK used a data-driven approach for needs assessment and SIL stratification.

- NC InCK does not administer screen-based assessments.

2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT

NC InCK used a two-tiered staffing model. Single points of contact provided care coordination for beneficiaries in SIL 2 and SIL 3. Service Integration Coordinators provided oversight, mentorship, and training to single points of contact.

IMPLEMENTATION STATUS AT THE OF END OF 2023

Because NC InCK exclusively used administrative data for SIL assignments, it has confirmed SIL assignments for

100%

of its attributed population.[1]

Single points of contact engaged

1,816 (1.6%)

beneficiaries in SIL 2 and SIL 3 in integrated care coordination and case management at the end of 2023.[2]

Single points of contact's caseload is determined by each care management entity that employed them.[3]

Key: SIL=Service Integration Level; InCK=Integrated Care for Kids; NC=North Carolina; Q=Quarter.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. 2023 NC InCK Annual Progress Report. 3. Interviews and focus groups conducted as part of 2023 site visits.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

NC Medicaid, the Department of Public Instruction (Education), and the Department of Public Safety (Justice) provided data on beneficiaries to inform SIL stratification. NC InCK originally planned to also use food security and housing stability screening data collected by MCOs. However, as of 2023, MCOs were not systematically collecting and reporting that data. NC InCK used Social Deprivation Index data[21] as a proxy for food insecurity and

21 The Social Deprivation Index is a composite measure of seven demographic characteristics collected in the American Community Survey available at the county, census track, ZIP code and primary care service area level. It includes measures of income, education, housing, employment, and transportation to quantify levels of disadvantage across small areas. More information available here: https://www.graham-center.org/maps-data-tools/social-deprivation-index.html.

housing instability. The NC Government Data and Analytics Center merged data from each source and completed the SIL stratification. NC InCK then assigned beneficiaries in SIL 2 and 3 to single points of contact, who confirmed beneficiaries' needs and engaged them in integrated care coordination and case management services.

Implementation status and reach at the end of 2023

NC InCK successfully launched its needs assessment and SIL stratification processes in Q3 2022 as soon as it established needed Data Use Agreements. NC InCK implemented three strategies to mitigate challenges associated with relying exclusively on administrative data:

1. Piloted a community referral process in the juvenile justice and education systems to enable referrals of children who might not be identified through administrative data alone.
2. Added a flag for missing preventive services to its SIL assignment algorithm to capture beneficiaries who have had limited engagement in the health care system.
3. Embedded care managers into clinics to evaluate the needs of children referred by providers, support enrollment in NC InCK, and conduct provider education.

Given that they use only administrative data for SIL stratification, NC InCK had final SIL assignments for all its attributed beneficiaries.

APPROACH TO SERVICE INTEGRATION

Existing care management entities such as MCOs, healthcare delivery systems, and social service providers employed single points of contact. Service Integration Coordinators, who are employed by NC InCK, provided oversight and training to single points of contact. Service Integration Coordinators and single points of contact communicated regularly through frequent meetings and phone calls to discuss service integration generally and the needs of specific families. NC InCK developed an online care management platform to regularly monitor and share information about specific beneficiaries' care plans and needs.

Single points of contact created a care plan with beneficiaries in SIL 2 and SIL 3 and documented their health and non-health needs. Medical providers and families could access the care plan via the electronic health record or patient portal. Service Integration Coordinators reviewed care plans, provided feedback to single points of contact, and helped them identify resources to address beneficiary needs.

By the end of 2023, NC InCK was fully staffed, with 11 Service Integration Coordinators and 40 single points of contact. Over 2023, NC InCK implemented strategies to improve coordination with specific programs that served its attributed population, including targeted training to increase referrals to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and enhanced coordination with local foster care agencies to provide services for children in foster care. As a result of the improved coordination with foster care, the number of children in foster care receiving integrated care management services increased. By Q2 2023, over 88% of all foster care children in the five NC InCK counties who were elevated for NC InCK care management were active in NC InCK care management.[22]

22 This finding is documented in NC InCK's Q2 2023 Quarterly Progress Reports.

Beneficiary engagement

Single points of contact followed the beneficiary engagement practices of the organizations at which they are employed, leading to variation in outreach methods. For example, DukeWELL[23] uses the phrase "three days, three ways" to remind single points of contact to attempt outreach on more than one day and in more than one communication mode, such as by telephone, email, or mail. Single points of contact embedded at MCOs follow their organization's protocol for outreach and often serve both InCK beneficiaries and other Medicaid enrollees served by the MCO. Engaging beneficiaries in integrated care coordination and case management was an ongoing challenge for NC InCK (Exhibit 4.5).

Exhibit 4.5. NC InCK used a wide range of strategies to address challenges with beneficiary engagement.

Challenge[1]	Example	Strategy[2]	Outcome[2]
Lower than anticipated engagement from phone outreach	Phone outreach had limited success and was limited to families with a consistent phone number. Caregivers often did not answer calls from unknown numbers.	NC InCK developed a guide for single points of contact on how to use text messaging for outreach.	The impact on outreach was unclear at the end of 2023.
Difficulty engaging specific subpopulations	Adolescents and young adults were more difficult to reach and engage in care coordination, except for those who had long-term experience managing their own chronic health needs and were already familiar with care management programs.	NC Medicaid and NC InCK created a guide on engaging adolescents and young adults in their own care.	The impact on outreach was unclear at the end of 2023.
Lower than anticipated engagement in care coordination	Single points of contact noted that some families were not interested in care coordination.	Embedded single points of contact in community agencies and implemented a community referral process to increase engagement among families who need care coordination.	Qualitatively, single points of contact noted families referred by community partners were more likely to engage in care coordination.

Key: InCK=Integrated Care for Kids; NC=North Carolina.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. NC InCK 2023 Quarterly Progress Reports.

Early Impacts on Health Care Outcomes

NC InCK made considerable progress in implementing the model by the end of 2023. The APM was fully in place, with contracts with all MCOs and with measures targeting well-child visits and emergency department (ED) visits starting in early 2023. NC InCK engaged 1,816 beneficiaries in integrated care coordination and case management. Based on our assessment, detailed in Appendix A, we determined that at this level of implementation it would potentially be feasible to detect population-level impacts in NC, if present. We summarize the impacts from 2022-2023 below.

23 DukeWELL is a care management program offered by Duke Health that employs NC InCK single points of contact.

- The rate of well-child visits increased by just over 16 visits (from 164 to 181) per 1,000 beneficiaries per quarter among InCK attributed beneficiaries (Exhibit 4.6). This change is significantly more than would be expected absent InCK given the comparison group increased well-child visits by roughly 11 visits (from 129 to 140) per 1,000 beneficiaries per quarter during the same period. This difference of five visits per 1,000 beneficiaries per quarter represents a 2.9% increase relative to the baseline level in the InCK-attributed population.
- The evaluation is unable to draw conclusions about impacts on emergency department (ED) visits for NC InCK because the comparison group was not sufficiently similar at baseline for this outcome (Exhibit 4.6).
- The TCOC among InCK attributed beneficiaries increased by $28 (from $721 to $749) per beneficiary per quarter (Exhibit 4.8). This change is significantly more than would be expected absent InCK given that the comparison group TCOC decreased by $5 ($725 to $729) per beneficiary per quarter over the same period. This difference of $24 represents a 3.3% increase in TCOC relative to baseline spending for NC InCK.

Exhibit 4.6. NC InCK increased well-child visits by 2.9%. Impacts on emergency department visits cannot be determined.

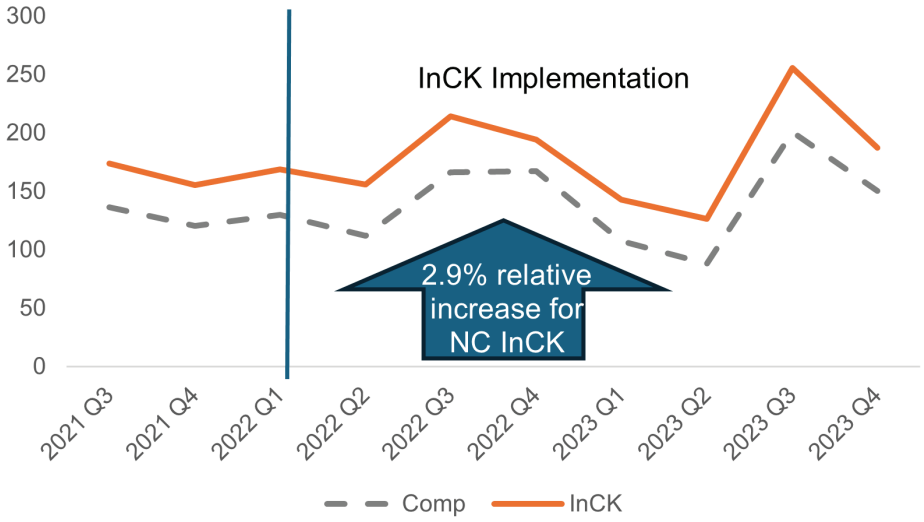
Measure	Utilization Impact Estimates (number per 1,000 beneficiaries per quarter)						
	InCK Baseline	InCK Intervention	Comparison Baseline	Comparison Intervention	Impact Change	95% CI	% Change
Well-Child Visits	164.4	180.7	128.6	140.2	4.7*	(1.8, 7.7)	2.9%
Outpatient ED Visits ⚠	89.0	70.0	124.0	93.7	11.3	(8.5, 14.1)	12.7%

Key: CI=Confidence Interval; ED=Emergency Department; InCK=Integrated Care for Kids; NC=North Carolina; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: * p < .05; ⚠=poor alignment between the attributed population and the comparison group.

Source: 1. Interim T-MSIS Analytic Files, 2021-2023.

Exhibit 4.7. Well-Child visits increased faster for NC InCK than for its comparison group.



Key: InCK=Integrated Care for Kids; Comp=Comparison Group; NC=North Carolina; Q=Quarter; T-MSIS=Transformed Medicaid Statistical Information System.

Source: Interim T-MSIS Analytic Files, 2021-2023.

Exhibit 4.8. NC InCK increased total cost of care by 3.3%.

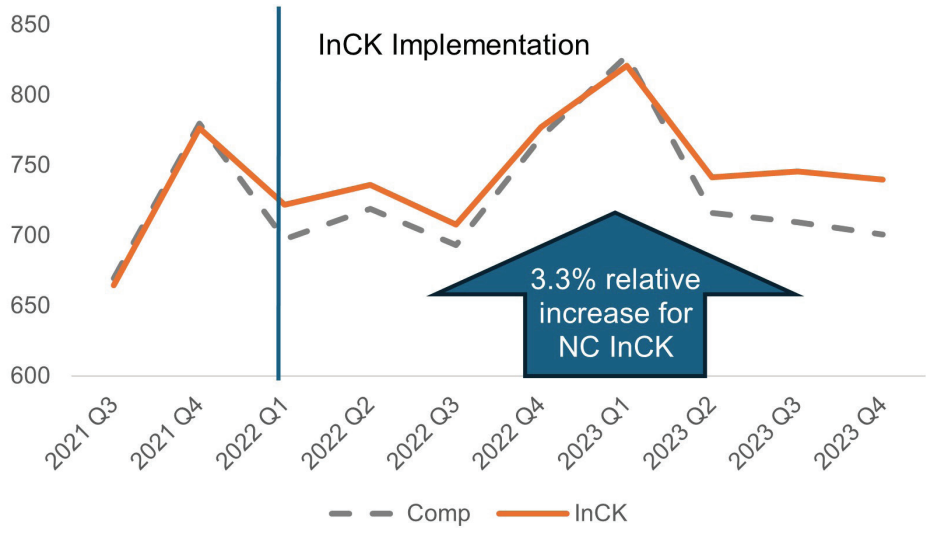
Measure	Average Total Cost of Care Impact Estimates (dollars per beneficiary per quarter)						
	InCK Baseline	InCK Intervention	Comparison Baseline	Comparison Intervention	Impact Change	95% CI	% Change
TCOC[a]	**$720.60**	**$748.91**	**$724.84**	**$729.37**	**$23.78***	**($10.85, $36.72)**	**3.3%**
Other Services[b]	$546.55	$548.72	$535.50	$529.56	$8.11	(-$0.62, $16.84)	1.5%
Inpatient	$117.06	$125.87	$111.96	$108.33	$12.44	(-$2.27, $27.14)	10.6%
Pharmacy	$73.99	$65.00	$81.51	$71.59	$0.93	(-$1.74, $3.60)	1.3%

Key: CI=Confidence Interval; InCK=Integrated Care for Kids; NC=North Carolina; TCOC=Total Cost of Care; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: * p < .05; a. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and one component for Long Term Care spending is not shown. b. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Source: 1. Interim T-MSIS Analytic Files, 2021-2023.

Exhibit 4.9. Total cost of care increased faster for NC InCK than for its comparison group.



Notes: InCK=Integrated Care for Kids; Comp=Comparison Group; NC=North Carolina; Q=Quarter; T-MSIS=Transformed Medicaid Statistical Information System.

Source: Interim T-MSIS Analytic Files, 2021-2023.

Conclusion

In 2022 and 2023, the first two years of the InCK Model implementation period, well-child visits increased more quickly in the NC InCK attributed region than in the comparison region. This represents a net 2.9% increase in well-child visits for NC InCK over that period.

Increases in well-child visits were likely attributable to the robust population-wide intervention NC InCK implemented in 2022-2023. By the end of 2023, NC InCK had implemented its needs assessment and SIL stratification approach and provided integrated care coordination and case management to 1,816 beneficiaries in SIL 2 and SIL 3. NC InCK's APM was also fully implemented, covered its full attributed population, and included incentives to increase well-child visits. Further, the alignment of NC InCK's integrated care coordination and case management with the new Medicaid managed care system contributed to a robust start of the implementation period.

Over the same period, TCOC also increased more quickly in the NC InCK attributed region than it did in the comparison region, a 3.3% net increase. The evaluation was not able to confirm what types of services (e.g., inpatient, pharmacy or "other services") were contributing most to this increase. Given the concurrent transition to managed care in NC and the increase in well-child visits in NC InCK, it is possible that this increase in TCOC is driven in part by increased use of preventive services, but the evaluation will need additional years of data to investigate this hypothesis.

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Five

CT InCK

CT InCK implemented its planned approach to needs assessment and Service Integration Level (SIL) stratification at the end of 2023 (Exhibit 5.1). Its engagement with beneficiaries was very limited in this period. Less than 1% of beneficiaries completed a screen-based assessment. It experienced notable delays in implementing its Alternative Payment Model (APM), which reimburses InCK Providers[24] for integrated care coordination and case management services. Five InCK Providers enrolled in the InCK APM by the end of 2023. However, just one single point of contact was billing for integrated care coordination and case management to beneficiaries in 2023, further limiting reach of model activities. Appendix D includes detailed descriptive information about CT InCK's attributed population and historical utilization in the region.

Exhibit 5.1. CT InCK included almost 12,000 beneficiaries in New Haven, Connecticut in 2023.

AWARD RECIPIENT

CT InCK

LEAD ORGANIZATION

Clifford W. Beers Guidance Clinic

TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

11,960[1]

Children (ages 0–20) and pregnant or postpartum beneficiaries (ages 21+) enrolled in Medicaid or CHIP[a]

ATTRIBUTED REGION

Two ZIP codes in New Haven, CT: 06510 and 06511

ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[b,2]

11,957 → 99.97%

SIL 1 beneficiaries

Attributed beneficiaries with low to no CCS needs meeting neither SIL 2 nor SIL 3 criteria; pregnant and postpartum (up to 1 year) beneficiaries ages 21+. Receives care coordination and referrals consistent with standard care. Needs reassessed annually.

Administrative assessment only	Screen-based assessment	No assessment
8,940	<11[c]	3,009

<11[c] → <0.1%

SIL 2 beneficiaries

Attributed beneficiaries with needs in two or more CCS domains and a functional symptom or functional impairment; criteria for pregnant people are unclear. Receives integrated care coordination from single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
N/A[d]	<11[c]	N/A[d]

<11[c] → <0.1%

SIL 3 beneficiaries

Attributed beneficiaries meeting SIL 2 criteria and experiencing or at risk for OOHP or inpatient admissions; criteria for pregnant people are unclear. Receives integrated case management from single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
N/A[d]	N/A[d]	N/A[d]

Key: CT=Connecticut; InCK=Integrated Care for Kids; CHIP=Children's Health Insurance Program; SIL=Service Integration Level; CCS=Core Child Services; OOHP=Out of Home Placement; Q=Quarter.

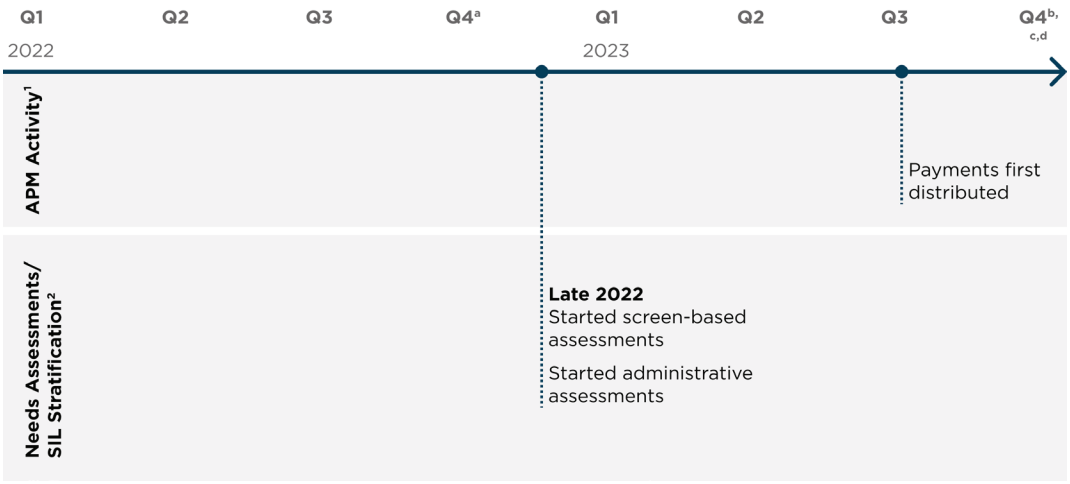
Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid or CHIP for at least 1 month during the model implementation period while residing in the attributed region. Any unhoused individual or family, deemed eligible for InCK based on claims data, who do OR do not reside within the two-ZIP code catchment area, are continually eligible for enrollment with InCK. This includes individuals or families who are forced to live out of their car, are frequently relocated, or have temporarily lost custody of their child(ren) who were remanded to foster care. b. The evaluation counted the number of beneficiaries in a SIL based on their highest confirmed SIL assignment during the year. Beneficiaries in SIL 1 include those without a needs assessment. c. Precise number suppressed due to small sample size. d. CT InCK does not finalize a SIL assignment without a screen-based assessment.

Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

24 An InCK Provider is a community-based organization that provides medical care or social services. These organizations enrolled in Medicaid to be able to bill Medicaid for care coordination and case management services provided through CT InCK.

The evaluation assessed the design and implementation status of both the APM and needs assessment and SIL stratification activities for each award recipient to define reach of model activities. CT InCK fully implemented its APM at the end of 2023; however, it only covers beneficiaries engaged in integrated care coordination and case management services and therefore is not population wide. CT InCK used a sequential hybrid approach to needs assessment and SIL stratification meaning that beneficiaries complete a screen-based assessment before their SIL assignment is considered final. Therefore, the evaluation considered the number of beneficiaries with a final assignment of SIL 2 or SIL 3 as those beneficiaries who were most likely to be engaged in integrated care coordination and case management services for CT InCK. We expect engagement with these services to contribute to changes in model outcomes. CT InCK conducted screen-based assessments (and therefore finalized SIL assignments) with fewer than 11 beneficiaries as of the end of 2023 (Exhibit 5.2) and engaged even fewer in integrated care coordination and case management services. This taken with the design of their APM means the evaluation determined CT InCK had limited reach at the end of 2023 (Exhibit 5.2).

Exhibit 5.2. CT InCK fully launched their core model components by the end of 2023 but only engaged a very small number of beneficiaries.



Key: APM=Alternative Payment Model; CT=Connecticut; InCK=Integrated Care for Kids; SIL=Service Integration Level; Q=Quarter.

Notes: a. CT InCK's attributed population in 2022 was 11,713. b. CT InCK's attributed population in 2023 was 11,960. c. As of the end of 2023, CT InCK had conducted screen-based assessments with fewer than 11 beneficiaries. Evaluation suppressed details in this exhibit given the small numbers. d. According to the evaluation's estimates, well-child visits would need to increase by 303 visits to detect a population level impact. See Appendix A for additional detail on this methodology.

Sources: 1. CT InCK 2023 Annual Progress Report. 2. CT InCK 2022 Annual Progress Report.

CT InCK APM

CT InCK's APM is a per-member-per-month (PMPM) payment for integrated care coordination and case management for beneficiaries in SIL 2 or SIL 3 (Exhibit 5.3). It also includes an incentive payment for InCK Providers to document race, ethnicity, and language data for these beneficiaries. It is a Health Care Payment Learning & Action Network Category 2B APM.[25] The Centers for Medicare & Medicaid Services (CMS) approved the state plan

25 The Health Care Payment Learning & Action Network Framework categorizes a quality incentive payment linked to reporting on provider performance as 2B. More information is available at: https://hcp-lan.org/apm-framework/

amendment that allowed for the APM in March 2023, and the state approved it in June 2023. InCK Providers needed to enroll as Medicaid providers prior to starting to provide services. This required them undergoing training and enrolling in the CT Medical Assistance Program so they can bill Medicaid. Five InCK Providers successfully enrolled by the end of 2023.

Exhibit 5.3. The CT InCK APM focuses on successful completion of a needs assessment and providing care coordination services.

Measure Type	Measure Details[1]	Performance Benchmark[a,b,c,1]
Care Coordination	Referral efficacy[d,e]	Documented for 50% or more of beneficiaries
	Successful completion of needs assessment[e]	Successful completion of needs assessment for 60% of attributed population
Upstream Drivers of Health	Comprehensive collection of race, ethnicity, and language data[e]	Documented for 75% or more of beneficiaries

Key: CT=Connecticut; InCK=Integrated Care for Kids; APM=Alternative Payment Model.

Notes: a. InCK Providers enrolled with CT Medicaid are eligible to receive the CT InCK APM. b. Providers receive a $201 per-member-per-month payment for beneficiaries in Service Integration Level (SIL) 2 and a $443 per-member-per-month payment for beneficiaries in SIL 3. c. The value of the quality incentive payment associated with the collection of race, ethnicity, and language data was still being finalized at the end of 2023. d. Referral efficacy reflects the proportion of referrals by InCK Providers for beneficiaries that are "closed" (that is, the number of closed referrals / the total number of referrals), which indicates that the provider to which a referral was made begins working with the referred individual. e. None of these measures are observable in the comparison group. The evaluation will observe changes in trends over time in the attributed population only.

Source: 1. InCK Model Evaluation Report 2. Available at: https://www.cms.gov/priorities/innovation/data-and-reports/2024/inck-model-second-eval-rpt

Local Model Design and Implementation Status at the End of 2023

CT InCK used a sequential hybrid approach to needs assessment and SIL stratification. Community-based organizations serving as InCK Providers provided integrated care coordination and case management services to beneficiaries in SILs 2 and 3 (Exhibit 5.4). Additional details on each of these model activities and implementation challenges follow.

CHALLENGES WITH APM IMPLEMENTATION

CT InCK faced several APM challenges including:

- **Timeline delays.** These stemmed in part from CT InCK's 2022 decision to pursue a different Medicaid authority and longer-than-anticipated timeline to receive approval from CMS and finalize design and performance measures.
- **Enrolling InCK Providers.** Completing providers' required documentation and getting approved to bill Medicaid was complicated and time consuming. These processes had to be completed before InCK Providers could engage beneficiaries.

Exhibit 5.4. CT InCK assigned fewer than 11 beneficiaries to SIL 2 or 3, and one Intensive Care Coordinator served these beneficiaries.

APPROACH TO KEY MODEL ELEMENTS	IMPLEMENTATION STATUS AT THE END OF 2023
1 NEEDS ASSESSMENT AND SIL STRATIFICATION CT InCK uses a sequential hybrid approach to needs assessment and SIL stratification. • Initial SIL assignment is determined by Medicaid claims. Final assignment is based on results of the screen-based assessment.	**CT InCK assigned** <11 beneficiaries to a final SIL assignment of SIL 2 or SIL 3 by the end of 2023.[a,1]
2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT InCK Provider frontline staff serve as the single points of contact, known locally as Intensive Care Coordinators, and provide integrated care coordination and case management services to beneficiaries in SILs 2 and 3.	**One single point of contact** was providing integrated care coordination and case management in 2023.[2] **CT InCK targets a ratio of** 16–20 **beneficiaries** per single point of contact.[3]

Key: CT=Connecticut; InCK=Integrated Care for Kids; SIL=Service Integration Level; Q=Quarter.

Notes: a. Precise number suppressed due to small cell size.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. CT InCK 2023 Annual Progress Report. 3. CT InCK 2023 Q3 Quarterly Progress Report.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

CT InCK's approach to needs assessment and SIL stratification included the following steps:

1. Stratify all attributed beneficiaries into an initial SIL via Medicaid claims data and data from the state's Department of Children and Families (DCF) to make an initial assignment for all attributed beneficiaries.[26]
2. Email all beneficiaries (regardless of SIL) a screen-based assessment (known locally as the HealthJourney) through an electronic platform.
3. Have the Administrative Service Organizations that manage the state's Medicaid program combine the results of the screen-based assessment with the Medicaid claims and DCF data to finalize the SIL.

26 There are two care coordination programs in Connecticut that overlap with CT InCK: the Intensive Case Management program, which provides care coordination services to Medicaid beneficiaries with multi-morbid conditions, and the state's behavioral health home model. Any beneficiary in either of these two programs is not eligible to receive CT InCK integrated care coordination and case management services. The state Medicaid agency removes beneficiaries with claims indicating enrollment in either of these programs from the list of attributed beneficiaries who are eligible for CT InCK.

CT InCK sent all beneficiaries (in SILs 1, 2, and 3) a welcome letter explaining the model before it followed up by email with the screen-based assessment. Beneficiaries could opt out of the model at this point. Single points of contact followed up with the beneficiaries with a preliminary SIL 2 and SIL 3 assignment by phone to help them complete the screen-based assessment. Beneficiaries who did not complete a screen-based assessment remained in their preliminary SIL assignment. As of the end of 2023, CT InCK reported challenges identifying pregnant and postpartum beneficiaries due to a lag in claims data. These beneficiaries were likely under-identified in CT InCK's approach.

Implementation and reach at the end of 2023

CT InCK fully implemented its planned approach to SIL assignment in late 2022 but had finalized SIL assignments with very few beneficiaries by the end of 2023. Given CT InCK prioritizes outreach to beneficiaries in SIL 2 and SIL 3, beneficiaries are more likely to have higher needs.

Low numbers of beneficiaries with a final SIL assignment were primarily due to delays in hiring and onboarding InCK Providers and single points of contact employed by InCK Providers. This hindered beneficiary outreach and engagement efforts and screen-based assessment completion rates. Additionally, beneficiary contact information was frequently incorrect and families often did not answer the phone for numbers they did not recognize. The screen-based assessment required 45 minutes to an hour to complete, which was an additional barrier for families who did respond to outreach attempts.

Efforts to increase beneficiary engagement

CT InCK adapted its approach to increase screen-based assessment completion rates (Exhibit 5.5). It saw some success, but many issues remained unresolved at the end of 2023.

Exhibit 5.5. CT InCK implemented strategies in 2023 to increase completion of screen-based assessments, but challenges persist.

Challenge[1, 2]	Example	Strategy	Outcome
Inaccurate or outdated contact information	Medicaid beneficiaries moved frequently and changed phone numbers.	Reallocated outreach responsibilities to Service Integration Coordinators; conducted more in-person outreach at community events and locations where families gather.	Still unresolved at the end of 2023.
Beneficiaries and families did not trust health and social service providers	Families with a history of negative interactions with health and social service systems hesitated to engage in CT InCK services.	Prioritized hiring staff with lived experience who understood family needs and the New Haven community. The CT InCK Parent Advisory Group provided feedback on outreach materials, so they resonated better with families.	Still unresolved at the end of 2023.
The screen-based assessment took 45 minutes to one hour to complete	The lengthy screen-based assessment was burdensome for families.	Offered monetary incentives to families who completed a screen-based assessment.	Screen-based assessment completion increased from 22% to 65%.

Key: CT=Connecticut; InCK=Integrated Care for Kids.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. CT InCK 2023 Annual Progress Report.

APPROACH TO SERVICE INTEGRATION

The Lead Organization employs Service Integration Coordinators. In addition to outreach responsibilities, Service Integration Coordinators provided ongoing support with integrated care coordination and case management to InCK Providers and single points of contact through regular meetings, training and performance monitoring, and identifying barriers and gaps in referral resources.

InCK Providers employ the single points of contact who provide integrated care coordination and case management services to beneficiaries in SIL 2 and SIL 3. The InCK APM reimburses InCK Providers for the services the single point of contact provides. The single points of contact collaborated closely with families to develop care plans based on results of screen-based assessments, centering families' goals and needs. Support ranges from helping to address health and housing needs to enrolling children in out-of-school activities. CT InCK expected single points of contact to manage caseloads of 16–20 SIL 2 and SIL 3 beneficiaries, as its approach was very time intensive. Single points of contact typically met with assigned beneficiaries in person multiple times a month.

CT InCK originally planned to use Unite Us to track referrals and document care management activities. However, in late 2021, CT InCK shifted to ZaneNet for these care management activities because Unite Us lacked this functionality. CT InCK continued to use Unite Us as a closed-loop referral platform.

Implementation status

In 2023, there was one single point of contact employed by the Lead Organization[27] who was billing Medicaid for integrated care coordination and case management to beneficiaries in SILs 2 and 3. Five InCK Providers, each with one to two employed single points of contact, began providing services at the very end of 2023 and planned to begin billing Medicaid for services to beneficiaries in early 2024.

Beneficiary engagement

CT InCK provided integrated care coordination and case management to only a very small number of beneficiaries in 2023 due to delays in implementation.

Early Impacts on Health Care Outcomes

There are no impact estimates included in this report for CT InCK because of its limited reach. Appendix A describes how the evaluation team determined that CT InCK's implementation status was insufficient to enable valid estimates of population-level impacts.

27 CT InCK originally planned for InCK Providers to provide all integrated care coordination and case management services. Given the delays in implementation, the Lead Organization began providing these services in 2023.

Conclusion

At the end of 2023, CT InCK had completed very few screen-based assessments with beneficiaries. It experienced implementation delays onboarding and setting up InCK Providers to bill Medicaid and provide integrated care coordination and case management services. Beyond these delays, beneficiary outreach was more challenging than anticipated. InCK Providers were fully enrolled and eligible to bill Medicaid and provide services to beneficiaries in SIL 2 and SIL 3 starting in Quarter 3 of 2023 but only began providing services at the very end of that year. CT InCK anticipated being able to increase the volume of beneficiaries served by the model starting in 2024.

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Six

NJ InCK

NJ InCK fully implemented its needs assessment and Service Integration Level (SIL) stratification approach in Quarter 1 of 2022 (Exhibit 6.1). However, only 0.8% of its attributed population had completed screen-based assessments by the end of 2023 (Exhibit 6.2). The state Medicaid agency updated Managed Care Organization (MCO) contracts for all five MCOs that serve the attributed population in January 2022 to include the Alternative Payment Model (APM), and payments began in Quarter 2 of 2023. NJ InCK established only one Advanced Care Management Team (ACMT) to provide integrated care coordination and case management services. Limited resources for screen-based assessments and staffing for service integration constrained the model's reach. Appendix D includes detailed descriptive information about NJ InCK's attributed population and historical utilization in the region.

Exhibit 6.1. NJ InCK's attributed population included more than 160,000 children in 2023, and only a small number were confirmed SIL 2 or SIL 3.

AWARD RECIPIENT

NJ InCK

LEAD ORGANIZATIONS

Hackensack Meridian Health (Award Recipient), Visiting Nurse Association of Central Jersey (Co-Lead), and New Jersey Health Care Quality Institute (Co-Lead)

TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

160,458[1]

Children (ages 0–20) enrolled in Medicaid or CHIP[a]

ATTRIBUTED REGION

Two counties in New Jersey: Monmouth and Ocean

ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[b,2]

159,953 → 99.7%

SIL 1 beneficiaries

Attributed beneficiaries meeting neither SIL 2 nor SIL 3 criteria. Needs are managed by their primary care provider.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	831	159,122

232 → 0.1%

SIL 2 beneficiaries

Attributed beneficiaries with multi-sector needs and functional impairments. Receive integrated care coordination from an ACMT.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	232	N/A[c]

273 → 0.2%

SIL 3 beneficiaries

Attributed beneficiaries meeting SIL 2 criteria and experiencing or at risk for OOHP. Receive integrated case management from an ACMT.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	273	N/A[c]

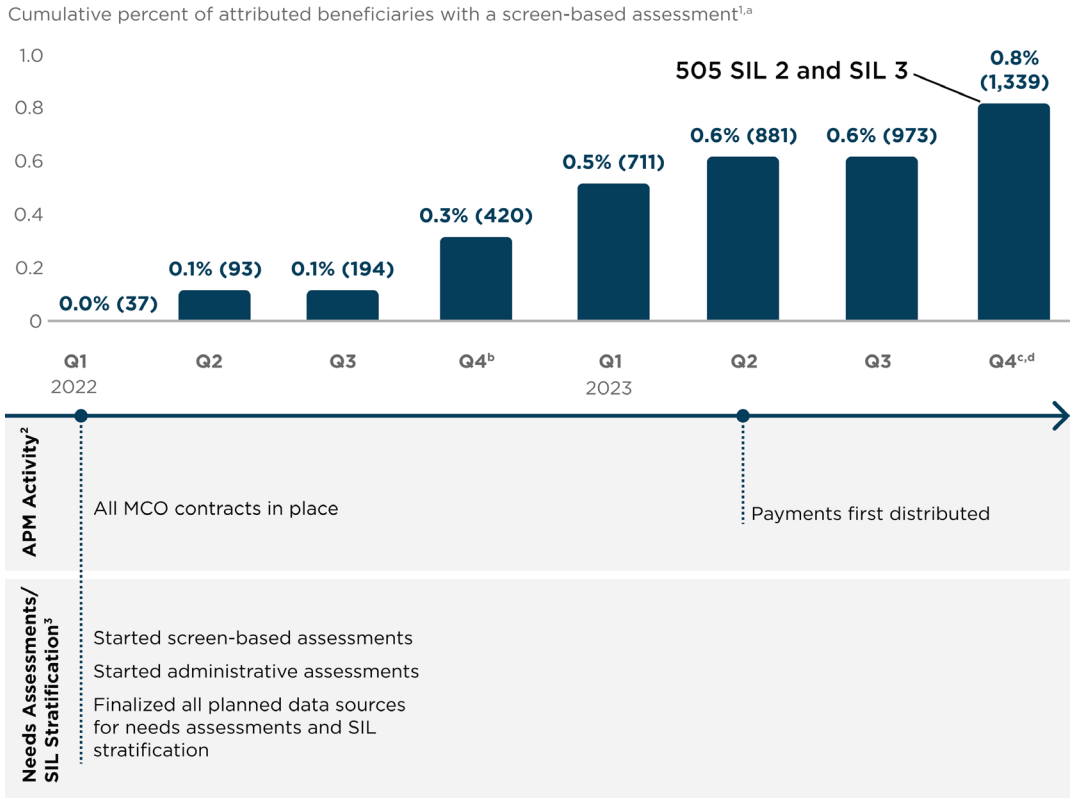
Key: ACMT=Advanced Care Management Team; CHIP=Children's Health Insurance Program; InCK=Integrated Care for Kids; NJ=New Jersey; Q=Quarter; SIL=Service Integration Level; OOHP=Out of Home Placement.

Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid or CHIP for at least 1 month during the model implementation period while residing in the attributed region. b. The evaluation counted the number of beneficiaries in a SIL based on their highest confirmed SIL assignment during the year. Beneficiaries in SIL 1 include those without a confirmed SIL assignment or a needs assessment. c. NJ InCK does not conduct an administrative assessment until the screen-based assessment is complete.

Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

The evaluation assessed the design and implementation of both the APM and the needs assessment and SIL stratification activities for each award recipient to define the reach of model activities. NJ InCK's APM includes two components. One component (review of screen-based assessment) was designed to be population wide. The other component (provision of integrated care coordination and case management) was designed to cover only those beneficiaries in SIL 2 and SIL 3 and is therefore not population wide. NJ InCK uses a concurrent hybrid approach to needs assessment and SIL stratification using a combination of Medicaid claims and screen-based assessments. NJ InCK finalizes SIL assignment only for those with both an administrative assessment and a completed screen-based assessment. This means that in 2023, 99.2% of the attributed population did not have a final SIL assignment. The evaluation uses a final SIL assignment of SIL 2 or SIL 3 to reflect engagement in model activities for NJ InCK. These beneficiaries have engaged with frontline staff and are eligible for integrated care coordination or integrated case management services, respectively, and we expect engagement with these services to contribute to changes in model outcomes. The number of screen-based assessments (Exhibit 6.2) is just one component of reach included to demonstrate the scale of implementation of needs assessment and SIL stratification.

Exhibit 6.2. NJ InCK administered screen-based assessments to 0.8% of its attributed population by the end of 2023 and made progress toward APM implementation.



Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; NJ=New Jersey; Q=Quarter; SIL=Service Integration Level.

Notes: a. Screen-based assessments are a component of the evaluation's measure of reach of model activities. b. NJ InCK's attributed population in 2022 was 154,189. c. NJ InCK's attributed population in 2023 was 160,458. d. As of the end of 2023, NJ InCK engaged a total of 505 beneficiaries in InCK Model activities (SIL 2 and SIL 3). Based on the evaluation's assessment NJ InCK would have had to increase well-child visits by 2,138 visits to detect a population level impact. Additional details on this methodology are included in Appendix A.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. Site visits and interviews conducted in 2023. 3. Award recipient-submitted Standard Operating Procedure documents (2022–2023).

NJ InCK APM

NJ InCK's APM included two payments to support care coordination activities (Exhibit 6.3). One payment was for primary care providers (PCPs) to review the screen-based assessment with beneficiaries (regardless of SIL). The other helped fund ACMT services for beneficiaries in SIL 2 and SIL 3. The NJ InCK APM did not include any quality measures. It was a Health Care Payment Learning & Action Network Category 2A APM.[28] All five MCOs that served the attributed population had contracts in place in 2022 to include the NJ InCK APM. Three of the five MCOs, which together covered 50% of the attributed population, were also sharing beneficiary contact information with NJ InCK to facilitate outreach and engagement.

Exhibit 6.3. NJ InCK's APM measures supported care coordination for all beneficiaries and care management services for beneficiaries in SIL 2 and SIL 3.

Measure Type	Measure Details[a]	Performance Benchmark
Care Coordination	Review screen-based assessment[b]	N/A[c,d]
	Provide care management services to beneficiaries in SIL 2 and SIL 3	N/A[e,f]

Key: InCK=Integrated Care for Kids; N/A=not applicable; NJ=New Jersey; APM=Alternative Payment Model; SIL=Service Integration Level.

Notes: a. For more information about NJ InCK's APM design and implementation, see InCK Model Evaluation Report 2, available at: https://cms.gov/priorities/innovation/data-and-reports/2024/inck-model-second-eval-rpt. b. NJ InCK's screen-based assessment is referred to locally as the HealthStory. c. Primary care providers including physicians, advanced practice nurses, midwives, and physician assistants in the attributed region are eligible for this incentive payment. d. Providers receive $35 (previously $29) per beneficiary for this incentive. e. The Visiting Nurse Association receives this payment to fund the Advanced Care Management Team (ACMT) services for all SIL 2 and SIL 3 beneficiaries engaged in NJ InCK integrated care coordination and case management. f. The incentive payment amount is $80 per-member-per-month for beneficiaries in SIL 2 and $160 per-member-per-month for beneficiaries in SIL 3 (previously $65 for SIL 2 and $110 for SIL 3).

Source: NJ InCK 2022 Annual Progress Report, NJ InCK 2023 Annual Progress Report.

28 The Health Care Payment Learning & Action Network Framework categorizes foundational payments with link to quality as 2A. More information is available at: https://hcp-lan.org/apm-framework/.

CHALLENGES WITH APM IMPLEMENTATION

NJ InCK experienced a few APM implementation challenges in 2022 and 2023:

- **Screen-based assessment was lengthy and burdensome** for families to complete. NJ InCK also had limited resources to assist families in completing assessments. Both issues hampered uptake and subsequently reimbursement for the ACMT and PCPs.
- **Initial payment rates were too low to incentivize providers and fund ACMT services**. In 2023 NJ InCK worked with the state Medicaid agency to increase the APM rates approximately 30%, resulting in a state plan amendment effective September 1, 2023. The new rates are $80 PMPM for beneficiaries in SIL 2 and $160 PMPM for beneficiaries in SIL 3.

Local Model Design and Implementation Status at the End of 2023

NJ InCK used a combination of Medicaid claims data and screen-based assessment data to finalize beneficiaries' SIL assignment (Exhibit 6.4).

Exhibit 6.4. NJ InCK had assigned less than 1% of its attributed population to SIL 2 or SIL 3, with one ACMT serving nearly 250 beneficiaries at a time.

APPROACH TO KEY MODEL ELEMENTS

IMPLEMENTATION STATUS AT THE END OF 2023[1,2]

1 NEEDS ASSESSMENT AND SIL STRATIFICATION

NJ InCK used a concurrent hybrid approach to needs assessment and SIL stratification.

- Initial SIL assignment is developed via results of the screen-based assessment. It is finalized via Medicaid claims.

NJ InCK had assigned

505 (0.3%)

beneficiaries to SIL 2 or SIL 3 cumulatively by the end of 2023.[1]

2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT

The ACMT provides integrated care coordination and case management services to beneficiaries in SIL 2 and SIL 3. A member of the ACMT serves as the single point of contact for beneficiaries.

One ACMT was serving

241 beneficiaries

in SIL 2 or SIL 3 at the end of Q3 2023.[2] The ACMT includes three CHWs. CHWs typically serve as the single point of contact.

Key: InCK=Integrated Care for Kids; NJ=New Jersey; Q=Quarter; SIL=Service Integration Level; ACMT=Advanced Care Management Team; CHW=Community Health Worker.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data. 2. NJ InCK 2023 Q3 Quarterly Progress Report.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

NJ InCK received referrals from a variety of sources, most commonly from medical providers. Caregivers could also self-refer through the NJ InCK website. NJ InCK then used a multi-step process to finalize beneficiaries' SIL assignments:

1. Confirmed referred beneficiary's Medicaid eligibility.
2. Sent beneficiary a link to the screen-based assessment via text message and email.
3. Called beneficiaries who had not completed the screen-based assessment within three weeks to prompt them to complete it and offer assistance as needed.
4. Generated a social complexity score using results of the screen-based assessment. This was combined with a medical complexity score generated from Medicaid claims data. NJ InCK used both data sources to produce an overall health complexity score that informed the preliminary SIL assignment.

5. Contacted the family and the beneficiary's PCP to discuss the preliminary SIL assignment (for those with an initial assignment of SIL 2 or SIL 3) and confirmed the final assignment.

Implementation status and reach at the end of 2023

At the end of 2023, NJ InCK had four Service Integration Coordinators in place to conduct outreach and finalize beneficiary SIL assignments. In addition, NJ InCK obtained grant funds to support additional staff who conduct initial outreach to eligible populations and support completion of the screen-based assessment.

NJ InCK's engagement with beneficiaries to complete screen-based assessments increased between 2022 and 2023. Despite the increase, NJ InCK's overall reach remained low for two reasons: (1) its overall attributed population was large, and (2) its approach to SIL stratification was time and labor intensive. Following a standardized systematic approach for population health management, NJ InCK had engaged 1,339 beneficiaries (0.8% of its attributed population) through a screen-based assessment and assigned them a final SIL by the end of 2023. Of those, 505 (0.3%) beneficiaries were assigned to SIL 2 or SIL 3.

Efforts to increase beneficiary engagement

NJ employed a number of strategies to improve beneficiary engagement (Exhibit 6.5).

Exhibit 6.5. NJ InCK used a variety of strategies to increase beneficiary engagement in needs assessment and SIL stratification, though some challenges persisted.

Challenge[1]	Example	Strategy[2]	Outcome[2]
Families reluctant to complete the screen-based assessment	Some families felt that certain questions revived previous trauma.	Temporarily deployed Service Integration Coordinators to support family engagement and screen-based assessment completion.	This challenge was ongoing at the end of 2023.
High level of effort needed to help families complete the screen-based assessment	The screen-based assessment was approximately 70 questions and required a high level of technology literacy to complete online.	Deployed Service Integration Coordinators to assist families with completing the screen-based assessment.	Increased family outreach and coordination to enroll in NJ InCK.
Limited public awareness of NJ InCK	Families were not familiar with NJ InCK and thus did not respond to direct outreach or submit interest forms.	Contracted with a local marketing firm for family engagement services including helping families complete interest forms. Engaged the NJ InCK Partnership Council to promote NJ InCK and increase name recognition in the region.	This challenge was ongoing at the end of 2023.
PCPs had limited engagement with families about NJ InCK[2]	PCPs had limited capacity to engage families to encourage them to participate in NJ InCK and help them complete the screen-based assessment.	Increased engagement with pediatric practices that serve a large volume of Medicaid beneficiaries. Engaged these practices' staff to help increase beneficiary completion of the screen-based assessment.	Increased number of engaged pediatric practices. It was not clear whether the strategy increased completion rates of screen-based assessment.

Key: InCK=Integrated Care for Kids; NJ=New Jersey; SIL=Service Integration Level; PCP=Primary Care Provider.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visit. 2. 2023 NJ InCK Annual Progress Report.

APPROACH TO SERVICE INTEGRATION

Service Integration Coordinators assigned SIL 2 and SIL 3 beneficiaries to a single point of contact within the ACMT to provide integrated care coordination and case management services. Beneficiaries assigned to SIL 2 or SIL 3 who were already receiving care management or care coordination services through the NJ Children's System of Care, county-based behavioral health care management organizations, their MCO, or another care management organization's program were not eligible to receive services from NJ InCK.[29]

The ACMT comprised a licensed social worker, one or more Community Health Workers (CHWs), a family support specialist, and a certified Child Life specialist. The CHW generally served as the single point of contact, although families could contact anyone on the team for help. Service Integration Coordinators created a care plan for each beneficiary, and ACMT members updated it regularly.

Implementation status and reach at the end of 2023

At the end of 2023, the Visiting Nurse Association of Central Jersey (VNA) staffed the one ACMT. The VNA combined funds from the APM and its own reserves to staff the Service Integration Coordinators and the ACMT. It was not clear if the VNA could afford to sustain this practice when the ACMT is screening more beneficiaries and engaging them in services. However, the lead organization reported that increasing the payment to fund the ACMT alleviated some of this concern. By the end of 2023, only 505 beneficiaries had ever been assigned to SIL 2 or SIL 3 and were thus eligible for integrated care coordination and case management services, which is a very small proportion (0.3%) of NJ InCK's attributed population.

Beneficiary engagement

Beyond limited reach, NJ InCK experienced additional challenges that limited beneficiary engagement in integrated care coordination and case management (Exhibit 6.6).

29 Beneficiaries in the NJ InCK attributed population who are enrolled in the NJ Children's System of Care are ineligible both for SIL stratification and for care coordination services offered through the InCK Model. Those enrolled in MCO care coordination are assigned a SIL but receive care coordination services through the MCO. As of the end of 2023, NJ InCK was still determining how to reassess these beneficiaries for needs.

Exhibit 6.6. NJ InCK adapted its approach to beneficiary engagement in integrated care coordination and case management.

Challenge[1]	Example	Strategy	Outcome[1,2]
Challenges with staffing	Early turnover among Service Integration Coordinators and the ACMT slowed implementation.[1]	Hire and onboard new staff.	Invested time and resources in hiring and onboarding new staff. Ultimately able to maintain sufficient staff to support beneficiaries in SIL 2 and SIL 3.
Fewer ACMTs than anticipated	NJ InCK planned for 10 or more ACMTs, each having four CHWs with caseloads of approximately 97 beneficiaries. NJ InCK had established only one ACMT by the end of 2023 with two CHWs and a caseload of approximately 120 each.	Expanded the ACMT by hiring a new ACMT Manager and additional CHWs.	The impact on caseloads was unclear at the end of 2023.
Technology does not support data sharing across entities	Service Integration Coordinators and ACMT members use a custom electronic care integration platform to share information with one another. NJ InCK originally envisioned MCOs, PCPs, and other providers would also share information via the platform. This level of interoperability was not possible with the original technology vendor.	Transitioned to a new vendor in 2023 and hoped this would improve data information sharing across providers.	The outcome of this transition was not clear at the end of 2023.

Key: InCK=Integrated Care for Kids; NJ=New Jersey; ACMT=Advanced Care Management Team; SIL=Service Integration Level; CHW=Community Health Worker; MCO=Managed Care Organization; PCP=Primary Care Provider.

Sources: 1. Interviews and focus groups conducted as part of 2023 site visits. 2. 2023 NJ InCK Annual Progress Report.

Early Impacts on Health Care Outcomes

Due to slow enrollment and the limited scope of NJ InCK's APM, there are no impact estimates included in this report for NJ InCK. Appendix A describes how the evaluation team determined that NJ InCK's implementation status was insufficient to enable valid estimates of population-level impacts.

Conclusion

Overall reach of NJ InCK's model activities and beneficiary engagement in screen-based assessments and integrated care coordination and case management services was limited at the end of 2023. Its attributed population is large, and its approach to SIL stratification is high touch and labor intensive for ACMT staff and Service Integration Coordinators. By the end of 2023, less than 1% of its attributed population had completed screen-based assessments for NJ InCK. Further, NJ InCK's APM is limited to beneficiaries with a completed screen-based assessment and does not include incentives for improved quality of care.

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Seven

NY InCK

NY InCK implemented its planned approach to needs assessment and Service Integration Level (SIL) stratification by the end of 2023 (Exhibit 7.1). At the same time, NY InCK had only engaged a small proportion of its attributed population (1.2%) in screen-based assessments (Exhibit 7.2). It successfully engaged two Managed Care Organizations (MCOs) in its Alternative Payment Model (APM). NY InCK began collecting data on provider performance on APM quality measures for one of these two MCOs. At the end of 2023, it had yet to finalize details of the APM with the second MCO. A number of other care coordination programs serve NY InCK beneficiaries, and in the first two years of the model NY InCK established mechanisms to coordinate with them and avoid duplication of services. NY InCK experienced delays hiring Service Integration Coordinators, and beneficiary engagement was more difficult than anticipated. Overall, NY InCK engaged only a small proportion of its attributed beneficiaries in model activities. Appendix D includes descriptive information about NY InCK's attributed population and historical utilization in the region.

Exhibit 7.1. NY InCK's attributed population included more than 56,000 beneficiaries in the North Central Bronx, and only a small number were confirmed in SIL 2 or SIL 3.

AWARD RECIPIENT

NY InCK

LEAD ORGANIZATION

Montefiore Medical Center

TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

56,710[1]

Children (ages 0–20) and pregnant or postpartum beneficiaries (ages 21+) enrolled in Medicaid[a]

ATTRIBUTED REGION

Three ZIP codes in the north-central Bronx: 10461, 10467, 10469

ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[b,2]

56,581 → 99.8%

SIL 1 beneficiaries

Attributed beneficiaries meeting neither SIL 2 nor SIL 3 criteria; low-risk pregnant beneficiaries engaged in regular prenatal care. Do not receive care coordination.

Administrative assessment only	Screen-based assessment	No assessment
41,098	467	15,016

107 → 0.2%

SIL 2 beneficiaries

Attributed beneficiaries with needs in two or more CCS domains AND functional symptoms or functional impairments; pregnant beneficiaries unengaged or late to engage (second or third trimester) in prenatal care. Receive integrated care coordination from single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	107	N/A[c]

22 → <0.4%

SIL 3 beneficiaries

Attributed beneficiaries meeting SIL 2 criteria AND experiencing or at risk for OOHP. Receive integrated case management from single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
N/A[c]	22	N/A[c]

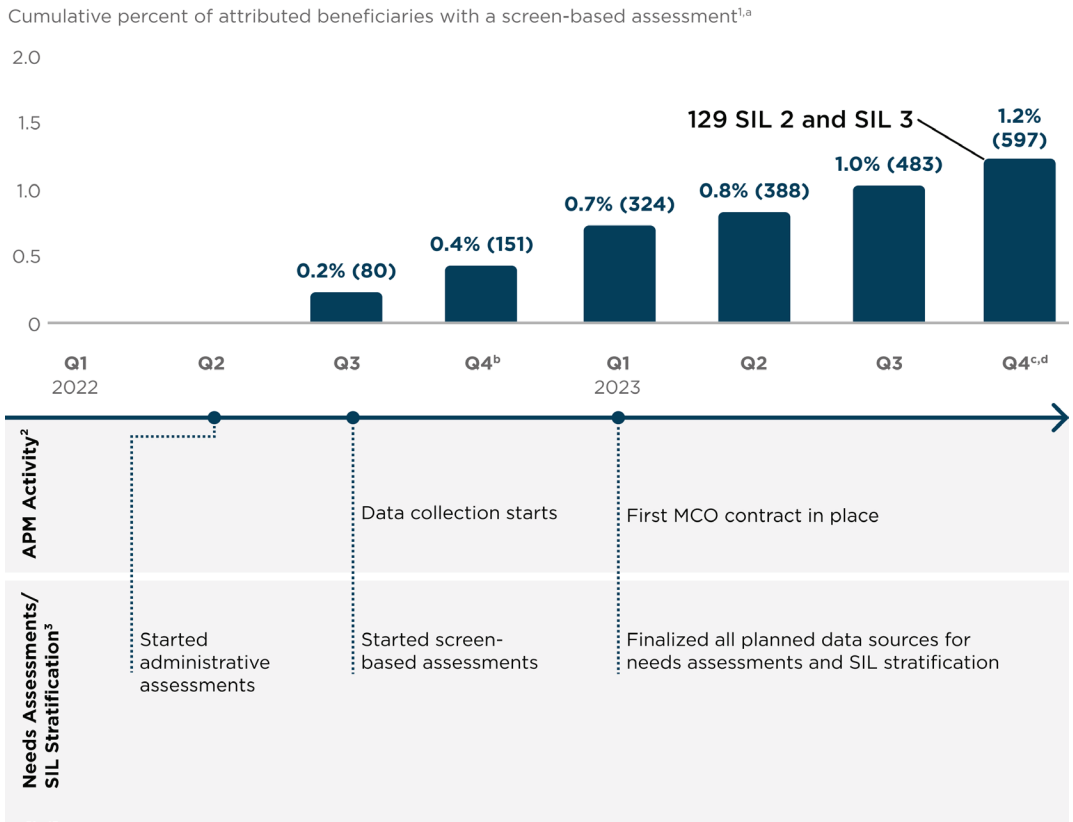
Key: InCK=Integrated Care for Kids; NY=New York; CHIP=Children's Health Insurance Program; SIL=Service Integration Level; CCS=Core Child Services; OOHP=Out of Home Placement; Q=Quarter.

Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid for at least 1 month during the model implementation period while residing in the attributed region. b. The evaluation counted the number of beneficiaries in a SIL based on their highest confirmed SIL assignment during the year. Beneficiaries in SIL 1 include those without a confirmed SIL assignment or needs assessment. c. NY InCK does not finalize SIL assignment until a screen-based assessment has been completed.

Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

The evaluation assessed the design and implementation of both the APM and needs assessment and SIL stratification activities for each award recipient to define reach of model activities. NY InCK's APM is designed to cover the full attributed population; however, at the end of 2023 they only had a fully implemented contract in place with one MCO. The MCO covers approximately 22 percent (7,000 beneficiaries) of the attributed population. NY InCK uses a sequential hybrid approach to needs assessment and SIL stratification using a combination of Medicaid claims and screen-based assessments. NY InCK finalizes beneficiaries' SIL assignments when they have completed a screen-based assessment. NY InCK had completed administrative assessments but not screen-based assessments on 72.5% of its attributed population in 2023. Beneficiaries with a final SIL assignment of SIL 2 or SIL 3 are eligible for integrated care coordination and case management services, and we expect engagement in these services to contribute to changes in model outcomes. The number of screen-based assessments is one component of reach (Exhibit 7.2) demonstrating the scale of implementation of needs assessment and SIL stratification processes.

Exhibit 7.2. NY InCK successfully completed screen-based assessments with a small proportion of its beneficiaries by the end of 2023.



Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; NY=New York; Q=Quarter; SIL=Service Integration Level.

Notes: a. Screen-based assessments are a component of the evaluation's measure of reach of model activities. b. NY InCK's attributed population in 2022 was 37,902. c. NY InCK's attributed population in 2023 was 56,710. d. As of the end of 2023, NY InCK engaged a total of 129 beneficiaries (SIL 2 and SIL 3) in model activities. According to the evaluation's estimates, well-child visits would need to increase by 790 visits to detect a population-level impact. See Appendix A for additional detail on this methodology.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. Site visits and interviews conducted in 2023. 3. Award recipient-submitted Standard Operating Procedure documents (2022–2023).

NY InCK APM

NY InCK's APM is a shared savings model in which providers were held accountable for preventive care and total cost of care (Exhibit 7.3). It is a Health Care Payment Learning & Action Network Category 3A APM.[30]

Exhibit 7.3. NY InCK's APM measures included preventive care and total cost of care.

Measure Type	Measure Details[1,2,3,a]	Performance Benchmark[b]
Preventive Care	Chlamydia screening	N/A
	Postpartum care visit	N/A
	Childhood immunization – Combo 3[c]	N/A
	Well-child visits 0-30 months of life	N/A
	Child and adolescent well-care visits	N/A
Cost	Total cost of care	N/A

Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; N/A=Not available; NY=New York.

Notes: a. Only providers affiliated with Montefiore Medical Center are eligible for the NY InCK APM. b. Details on performance benchmarks to earn incentives and potential payment amounts were not available to the evaluation team. c. The percentage of children age 2 who have four diphtheria, tetanus, and acellular pertussis (DTaP); three polio (IPV); one measles, mumps, and rubella (MMR); three haemophiles influenza type B (HiB); three hepatitis B (HepB); one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV), and two influenza (flu) vaccines by their second birthday.

Sources: 1. New York State 2023 Quality Assurance Reporting Requirements. 2. 2023 NY InCK Annual Progress Report. 3. 2023 NY InCK Quarterly Progress Report.

APM IMPLEMENTATION STATUS

By the end of 2023, NY InCK set up contracts with two of the three MCOs with the largest proportion of members in its attributed population.[31] One was fully executed, and the other was still under negotiation at the end of 2023. Combined these two MCOs cover 8,000 attributed beneficiaries (~25% of the attributed population).

NY InCK worked closely with MCO partners to identify and prioritize quality and cost measures to include in the APM. Together, they created a provider performance dashboard. As of the end of 2023, the Lead Organization was still finalizing its data reporting processes. It planned to continue these conversations in 2024.

30 The Health Care Payment Learning & Action Network Framework categorizes APMs with shared savings as 3A. More information is available at: https://hcp-lan.org/apm-framework/.

31 Seven MCOs serve the attributed region. NY InCK prioritized the three MCOs with the largest proportion of enrolled beneficiaries to establish the NY InCK APM.

Local Model Design and Implementation Status at the End of 2023

NY InCK used a combination of Medicaid claims data, clinical data, and data from screen-based assessments to finalize SIL assignments. NY InCK removed beneficiaries who were enrolled in programs with overlapping services from the SIL stratification process (Exhibit 7.4).

Exhibit 7.4. NY InCK assigned less than 1% of attributed beneficiaries to SIL 2 or SIL 3. NY InCK connected them to existing care coordination programs.

APPROACH TO KEY MODEL ELEMENTS

IMPLEMENTATION STATUS AT THE END OF 2023[1,2]

1 NEEDS ASSESSMENT AND SIL STRATIFICATION

NY InCK used a sequential hybrid approach for needs assessment and SIL stratification.

- Initial SIL assignment is determined via Medicaid claims. SIL assignment is determined via screen-based assessment.

NY InCK had successfully screened

597 (1%) **beneficiaries at the end of 2023.**

Only 129 (0.2%) had a final SIL assignment of 2 or 3 to therefore receive model services.[1,2]

2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT

NY InCK connected beneficiaries in SIL 2 and SIL 3 to existing Medicaid-funded care coordination using a direct referral pathway to streamline coordination and avoid duplication.

NY InCK provided services to beneficiaries who either are not eligible for those programs or declined to enroll.

NY InCK experienced **challenges hiring Service Integration Coordinators** and was **understaffed** at the end of 2023.

NY InCK expected Service Integration Coordinators to have a caseload of

75 beneficiaries

at any given time. The caseloads of single points of contact at other care coordination programs that serve NY InCK beneficiaries vary.[3]

Key: InCK=Integrated Care for Kids; NY=New York; SIL=Service Integration Level; Q=Quarter.

Sources: 1. 2023 NY InCK Annual Progress Report. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 3. NY InCK 2023 Q3 Quarterly Progress Report.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

NY InCK used a hybrid sequential approach to assess needs and finalize SIL assignment in a multi-step process:

1. The NY Department of Health pulled a monthly report of all eligible beneficiaries in the NY InCK attributed region and removed beneficiaries who were already enrolled in Health Homes and Health Homes Serving Children (HH/HHSC).[32]
2. NY InCK used Medicaid claims data and clinical data from the electronic health record and two regional health information exchanges to inform initial SIL assignments.
3. NY InCK sent all beneficiaries an electronic link to complete a screen-based assessment via REDCap.[33]
4. Service Integration Coordinators conducted phone outreach to beneficiaries with a preliminary SIL 2 or SIL 3 assignment to encourage them to complete their screen-based assessment.
5. The Service Integration Coordinator supervisor incorporated the results of the screen-based assessments to finalize SIL assignments.

Implementation status at the end of 2023

NY InCK successfully finalized its needs assessment and SIL stratification processes in Quarter 1 of 2023. The NY Department of Health mailed letters to the full attributed population to provide information about how to permanently opt out of data sharing with the Lead Organization and its partners. NY InCK experienced a short delay in getting the screen-based assessment in REDCap, but it resolved those issues by Quarter 1 of 2023.

Overall, NY InCK successfully conducted screen-based assessments with 1.2% of its attributed population at the end of 2023. This included 107 beneficiaries with a confirmed SIL 2 assignment and 22 beneficiaries with a confirmed SIL 3 assignment. NY InCK focused outreach on individuals with needs in two or more CCS domains, those with functional symptoms or functional impairments, pregnant individuals unengaged or late to engage in prenatal care, and children at risk for OOHP; therefore, beneficiaries with a screen-based assessment likely reflect beneficiaries with higher needs.

APPROACH TO SERVICE INTEGRATION

The Service Integration Coordinator supervisor reviewed results of the screen-based assessments to identify beneficiaries who may be eligible for another Medicaid-funded care coordination program, such as HH/HHSC. NY InCK referred eligible beneficiaries to those programs, and their staff served as the single point of contact for those beneficiaries.

32 Health Homes and Health Homes Serving Children are two programs that provide care coordination and case management services to Medicaid beneficiaries in the attributed region. Eligibility for the programs overlaps with that of NY InCK.

33 REDCap is a secure web application for building and managing online surveys and databases. It is designed to support online and offline data capture for research.

Service Integration Coordinators served as the single points of contact for beneficiaries who either were ineligible for other programs or declined to enroll. Service Integration Coordinators used results of the screen-based assessments to identify and prioritize families' needs, generate a list of referrals and community resources, and assist families in contacting providers when needed. Service Integration Coordinators used electronic health records and the regional health information exchanges to monitor beneficiaries' receipt of services. Service Integration Coordinators reached out as needed to identify additional assistance beneficiaries need and maintained an "open door" policy that allowed beneficiaries to contact them at any time.

NY InCK encountered challenges hiring for the Service Integration Coordinator role throughout 2023. NY InCK struggled to attract Service Integration Coordinator candidates with appropriate expertise. In response, it converted one position to a Service Integration Coordinator supervisor role, revised the Service Integration Coordinator job description to expand the candidate pool, looked for internal candidates, and attended local job fairs. NY InCK filled the Service Integration Coordinator supervisor role and five of seven Service Integration Coordinator roles as of the end of 2023.

Beneficiary Engagement

Engaging beneficiaries in completing the screen-based assessment and in integrated care coordination and case management was more challenging than anticipated (Exhibit 7.5).

Exhibit 7.5. NY InCK employed strategies to improve beneficiary engagement levels, but challenges persist.

Challenge[1]	Example	Strategy[1,2]	Outcome[1,2]
Mistrust and unwillingness to disclose personal information	Some families deeply mistrusted social service and health care providers due to past experience with discrimination.	NY InCK engaged trusted community partners in outreach efforts and hired Service Integration Coordinators with lived experience and local knowledge.	As of end of 2023 these challenges persisted.
Difficulty hiring Service Integration Coordinators, which reduced capacity for outreach	Hiring challenges meant NY InCK experienced reduced capacity to outreach to beneficiaries.	NY InCK continued to work on hiring more Service Integration Coordinators and prioritized hiring staff from the community. By the end of 2023, NY InCK had three Service Integration Coordinators and one Service Integration Coordinator supervisor and hoped to continue recruiting in 2024.	
Lower-than-anticipated engagement from phone outreach	NY InCK Service Integration Coordinators reported many missing or outdated phone numbers and that beneficiaries were unwilling to answer calls from unknown numbers.	Starting in early 2023, NY InCK Service Integration Coordinators began to target outreach to families who had started the electronic version of the screen-based assessment but not finished it. Service Integration Coordinators offered these families assistance to complete the screen-based assessments.	
Lack of awareness of NY InCK in the attributed region	Beneficiaries and families were typically unaware of InCK and did not recognize the NY InCK name.	The Lead Organization and Partnership Council members were established and well-known entities within the community. NY InCK started using their names in outreach materials.	Using Lead Organization and partner names has helped increase beneficiary engagement.

Key: InCK=Integrated Care for Kids; NY=New York.

Sources: 1. Interviews and focus groups conducted as part of the 2023 site visits. 2. NY InCK 2023 Quarterly Progress Reports.

Early Impacts on Health Care Outcomes

NY InCK engaged only a small proportion of beneficiaries by the end of 2023, and its APM implementation was limited to a subset of its attributed population. Due to these factors, there are no impact estimates included in this report for NY InCK. Appendix A describes how the evaluation team determined that NY InCK's implementation status was insufficient to enable valid estimates of population-level impacts.

Conclusion

NY InCK had successfully engaged one MCO in APM contracts at the end of 2023, with negotiations underway with another. Together these two MCOs cover approximately 8,000 members or 25% of NY InCK's attributed population. At the end of 2023, NY InCK successfully implemented its approach to needs assessment and SIL stratification to avoid duplication of services. However, NY InCK engaged a very limited number of beneficiaries in screen-based assessments. Throughout the first two years of the model, NY InCK struggled with hiring Service Integration Coordinators and experienced lower-than-anticipated beneficiary engagement.

INTEGRATED CARE FOR KIDS

Award Recipient

Chapter Eight

OH InCK

OH InCK implemented its needs assessment and Service Integration Level (SIL) stratification process in Quarter 4 of 2022 (Exhibit 8.1). OH InCK administered screen-based assessments to 9.6% of its attributed population (Exhibit 8.2). Further, OH InCK finalized its Alternative Payment Model (APM) design, began collecting provider performance data, and distributed the first incentive payments in the final quarter of 2023. Partners for Kids (PFK)[34] had APM contracts with five of the seven Managed Care Organizations (MCOs) that serve its attributed region, covering approximately 50% of its attributed population. The OH InCK APM is a subset of these PFK APMs, and the quality measures included in the APM are narrow in scope. OH InCK began providing integrated care coordination and case management services to children within these MCOs in 2022 and 2023. To avoid duplication of services, OH InCK referred beneficiaries to other care coordination programs. Appendix D includes detailed descriptive information about OH InCK's attributed population and historical utilization in the region.

Exhibit 8.1. OH InCK's population included more than 33,000 children in rural Ohio, with over 4% assigned to SIL 2 or SIL 3.

AWARD RECIPIENT

OH InCK

LEAD ORGANIZATION

Nationwide Children's Hospital

TOTAL NUMBER OF ATTRIBUTED BENEFICIARIES

33,857[1]

Children (ages 0–20) enrolled in Medicaid or CHIP[a]

ATTRIBUTED REGION

Two counties in eastern Ohio: Licking and Muskingum

ATTRIBUTED BENEFICIARIES ASSIGNED TO EACH SIL[2,b]

32,387 → 95.7%

SIL 1 beneficiaries

Attributed beneficiaries meeting neither SIL 2 nor SIL 3 criteria. Do not receive care coordination.

Administrative assessment only	Screen-based assessment	No assessment
25,873	2,296	4,218

1,185 → 3.5%

SIL 2 beneficiaries

Attributed beneficiaries with at least one behavioral health need and at least one CCS need and at least one functional symptom or two or more functional impairments. Receive integrated care coordination from single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
556[c]	629	N/A

285 → 0.8%

SIL 3 beneficiaries

Attributed beneficiaries meeting SIL 2 criteria and demonstrating imminent risk of OOHP. Receive integrated case management from single points of contact.

Administrative assessment only	Screen-based assessment	No assessment
140[c]	145	N/A

Key: InCK=Integrated Care for Kids; OH=Ohio; SIL=Service Integration Level; CCS=Core Child Services; CHIP=Children's Health Insurance Program; OOHP=Out of Home Placement; Q=Quarter.

Notes: a. The attributed population includes beneficiaries who are enrolled in Medicaid or CHIP for at least 1 month during the model implementation period while residing in the attributed region. b. The evaluation counted the number of beneficiaries in a SIL based on their highest confirmed SIL assignment during the year. Beneficiaries in SIL 1 include those without a needs assessment. c. The evaluation considers these individuals to have only received an administrative assessment due to the data received from the award recipient.

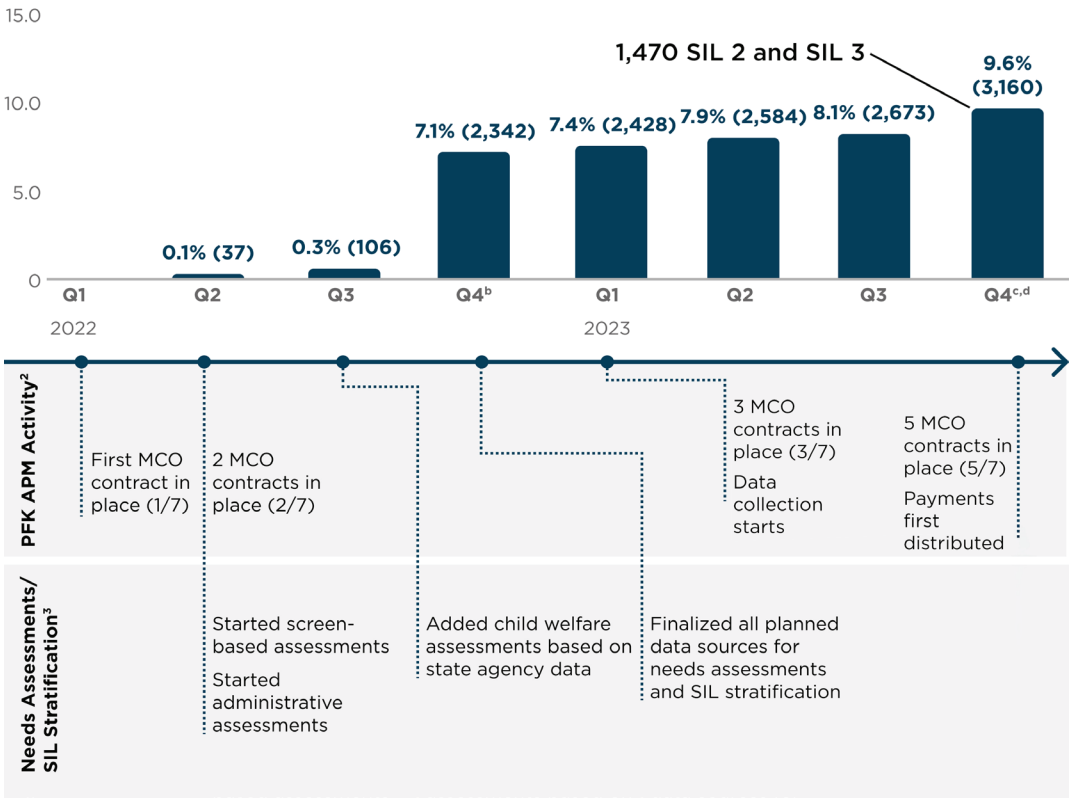
Sources: 1. Award recipient-submitted 2023 Retrospective Attribution File. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files.

34 Partners for Kids is an Accountable Care Organization that serves Medicaid enrolled children based at Nationwide Children's Hospital. The APM contracts are between PFK and MCOs.

The evaluation assessed the design and implementation of both the APM and the needs assessment and SIL stratification activities for each award recipient to define reach of model activities. OH InCK's APM covers only the subset of beneficiaries aligned with PFK. Two of three quality measures included in the APM are focused on attention-deficit/hyperactivity disorder (ADHD). OH InCK used a sequential hybrid approach to needs assessment and SIL stratification using a combination of Medicaid claims and results of screen-based assessment. In 2023 OH InCK completed administrative assessments only on 78.4% and screen-based assessments on 9.1% of their attributed population. The number of screen-based assessments is one component of reach (Exhibit 8.2) demonstrating the scale of implementation of needs assessment and SIL stratification processes. However, since OH InCK does not finalize SIL assignment until the beneficiary completes the screen-based assessments, the evaluation can use assignment to SIL 2 or SIL 3 as a measure of engagement in integrated care coordination and case management services. These are the services most likely to contribute to model outcomes.

Exhibit 8.2. OH InCK assessed less than 10% of its attributed population with screen-based assessments, while slowly expanding its APM footprint.

Cumulative percent of attributed beneficiaries with a screen-based assessment[1,a]



Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; OH=Ohio; Q=Quarter; SIL=Service Integration Level; PFK=Partners for Kids.

Notes: a. Screen-based assessments are a component of the evaluation's measure of reach of model activities. b. OH InCK's attributed population in 2022 was 32,791. c. OH InCK's attributed population in 2023 was 33,857. d. At the end of 2023, OH InCK engaged a total of 1,470 beneficiaries (SIL 2 and SIL 3) in InCK Model activities. According to the evaluation's estimates, well-child visits would need to increase by 1,151 visits to detect a population level impact. However, OH InCK's APM presented additional limitations for estimating model impacts. See Appendix A for additional detail on this methodology.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. Site visits and interviews conducted in 2023. 3. Award recipient-submitted Standard Operating Procedure documents (2022–2023).

OH InCK APM

The OH InCK APM was designed to improve completion rates of health risk assessments and improve quality of care for beneficiaries with ADHD. It is a Health Care Payment Learning & Action Network Category 2C APM.[35]

DESIGN AND STATUS OF THE APM

The Lead Organization operated a fully capitated accountable care organization, PFK, for all Medicaid-eligible children in its service area including Licking and Muskingum Counties. The OH InCK APM added three pay-for-performance measures specific to InCK to PFK's existing APM (Exhibit 8.3).

Exhibit 8.3. OH InCK's APM incentivizes completion of health risk assessments and ADHD quality measures.

Measure Type[1]	Measure Details[1]	Performance Measure[a,b]
Care Coordination	Health risk assessment completion[c,d]	# of beneficiaries with a health risk assessment completed
Behavioral Health	Follow-up care for children prescribed ADHD medication	# of beneficiaries with a follow-up with the prescribing authority within 45 days of starting ADHD medication
	Patient engagement in psychosocial services after a new ADHD diagnosis[e]	# of beneficiaries with at least one psychotherapy visit within 1 year of ADHD diagnosis

Key: APM=Alternative Payment Model; ADHD=Attention-Deficit/Hyperactivity Disorder; InCK=Integrated Care for Kids; OH=Ohio.

Notes: a. Only providers contracted with Partners for Kids are eligible for the OH InCK APM. b. Providers receive $10 per completed health risk assessment and $40 per beneficiary for achieving each of the two ADHD measures. c. The health risk assessment collects information about housing instability, food insecurity, and transportation needs. d. For impact analyses, the evaluation team can proxy for completion of a Health Risk Assessment by assessing use of a procedure code for "Administration of patient-focused health risk assessment instrument." As of Fall 2025, the evaluation team had not assessed the reliability of this code and whether it is a functional proxy. e. This measure aligns with National Quality Forum–endorsed measure #0107, available here: https://p4qm.org/measures/0107.

Source: 1. OH InCK 2022 Annual Progress Report Supplement.

OH Medicaid required that all MCOs complete health risk assessments with beneficiaries, but completion rates were low historically. OH InCK aimed to increase the completion rate through its InCK APM. OH InCK selected the ADHD measures due to the high prevalence of ADHD among beneficiaries who have experienced Out of Home Placement. Integrated care coordination and case management may improve follow-up care for children with ADHD. OH InCK launched its APM in Quarter 3 of 2023 and distributed one round of incentive payments to eligible providers by the end of 2023.

35 The Health Care Payment Learning & Action Network Framework categorizes pay-for-performance incentives as 2C. More information is available at: https://hcp-lan.org/apm-framework/.

CHALLENGES WITH APM IMPLEMENTATION

OH InCK experienced some notable challenges implementing its APM:

- **The APM was limited to MCOs that have care coordination agreements with PFK**. At the end of 2023, five of the seven MCOs operating in the attributed region had established agreements with PFK to provide care for their aligned beneficiaries.[36] These five MCOs covered 50% of the InCK attributed population. PFK was still negotiating with the two other MCOs, which covered the remaining 50% of OH InCK's attributed population.
- **Only providers contracted with PFK were eligible to participate in the OH InCK APM, and this was a small number of providers in the attributed region**. OH InCK continued to engage primary care providers and support their adoption of new workflows, particularly to support completion of health risk assessments.
- **The Ohio Department of Medicaid delayed the roll out of the Next Generation[37] managed care program into 2023**. This slowed down critical implementation steps, such as finalizing sub-capitation agreements with MCOs.
- **OH InCK experienced delays obtaining access to pharmacy claims data**. This hindered finalization of the ADHD APM measures.
- **Given PFKs' existing APMs it was difficult to identify a novel measure for InCK**. PFK's existing APMs were fairly comprehensive. PFK used InCK as an opportunity to test the concept of a narrower quality incentive program with a subset of providers.

36 OH Medicaid refers to this arrangement as "delegated care coordination agreements"; PFK is responsible for care coordination for beneficiaries covered by MCOs with this arrangement.

37 Beginning in 2019, OH Medicaid re-procured managed care services to be more focused on the health and well-being of individuals (https://managedcare.medicaid.ohio.gov/news/news-all/press-release-04092021).

Local Model Design and Implementation Status at the End of 2023

OH InCK used a combination of Medicaid claims data, publicly available data about social risks, and screen-based assessments to finalize SIL assignments.

Exhibit 8.4. OH InCK had assigned 4% of its attributed population to SIL 2 or SIL 3, with each single point of contact serving around 75 beneficiaries.

APPROACH TO KEY MODEL ELEMENTS

IMPLEMENTATION STATUS AT THE END OF 2023[1,2]

1 NEEDS ASSESSMENT AND SIL STRATIFICATION

OH InCK used a sequential hybrid approach to needs assessment and SIL stratification.

- Initial SIL assignment is determined via Medicaid claims. Final SIL assignment is determined via screen-based assessment.

OH InCK assigned

1,470 (4.3%)

beneficiaries to a final SIL of SIL 2 or SIL 3 by the end of 2023.

2 INTEGRATED CARE COORDINATION AND CASE MANAGEMENT

Service Integration Coordinators assigned beneficiaries to a single point of contact and monitored beneficiary engagement in OH InCK. PFK, MCOs, or community-based organizations could employ single points of contact.

As of October 2023, the ratio of single points of contact to beneficiaries assigned to SILs 2 and 3 was

1:76

Key: InCK=Integrated Care for Kids; OH=Ohio; Q=Quarter; SIL=Service Integration Level; PFK=Partners for Kids; MCO=Managed Care Organization.

Sources: 1. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 2. OH InCK 2023 Annual Progress Report.

APPROACH TO NEEDS ASSESSMENT AND SIL STRATIFICATION

OH InCK used administrative data from the Ohio Departments of Medicaid and Job and Family Services and publicly available data about risk factors[38] to make an initial SIL assignment. Then, Service Integration Coordinators conducted age-appropriate screen-based assessments with beneficiaries preliminarily assigned to SIL 2 or SIL 3 to confirm the final stratification and enroll beneficiaries in OH InCK.

38 OH InCK uses the Ohio Opportunity Index, available at https://grc.osu.edu/Projects/OhioOpportunityIndex (an index measure of combined publicly available social, economic, and environmental data at the census tract level), and USDA Economic Research Service data with indicators for food deserts at the census tract level.

Implementation status and reach at the end of 2023

OH InCK developed and implemented workflows for Service Integration Coordinators to conduct screen-based assessments and refer beneficiaries to a single point of contact for integrated care coordination or case management. OH InCK created an outreach coordinator position to relieve Service Integration Coordinators of the responsibility of finding the most up-to-date beneficiary contact information.

OH InCK was fully staffed with nine Service Integration Coordinators in 2023. At the time, OH InCK focused on beneficiaries enrolled in the MCOs with which PFK has a care coordination agreement, and reported that the number of Service Integration Coordinators was sufficient to support the number of enrolled beneficiaries.

OH InCK's engagement with beneficiaries to complete screen-based assessments fluctuated substantially across quarters in 2022 and 2023 but was limited overall. By the end of 2023, OH InCK had completed assessments with 3,160 beneficiaries (9.6% of its attributed population).

Beneficiary engagement

By the end of 2023, OH InCK had implemented several strategies to address challenges in reaching beneficiaries for needs assessments (Exhibit 8.5).

Exhibit 8.5. OH InCK sought to increase needs assessments completed through improving accuracy of beneficiary contact information.

Challenge[1]	Example	Strategy[2]	Outcome
Limited or inaccurate contact information for beneficiaries and their families	Without updated contact information, Service Integration Coordinators struggled to engage beneficiaries in the screen-based assessment.	OH InCK hired a quality outreach coordinator in Q2 of 2023 to be responsible for obtaining updated contact information prior to Service Integration Coordinator outreach.	This approach was very successful. It allowed the Service Integration Coordinators to focus their time on conducting needs assessments to confirm SIL stratification.
Lack of care management delegation agreements with all MCOs	OH InCK did not have agreements with two MCOs that covered 50% of its attributed population. This limited the number of InCK-eligible children OH InCK could engage.	Continued conversations with the outstanding MCOs.	The challenge persisted at the end of 2023.

Key: InCK=Integrated Care for Kids; OH=Ohio; Q=Quarter; SIL=Service Integration Level; MCO=Managed Care Organization.

Sources: 1. Interviews and focus groups conducted during 2023 site visits. 2. OH InCK 2023 Annual Progress Report.

APPROACH TO SERVICE INTEGRATION

OH InCK referred beneficiaries with documented behavioral health needs to Ohio Resilience Through Integrated Systems and Excellence (OhioRISE)[39]; these were primarily beneficiaries in SIL 3. Service Integration Coordinators referred beneficiaries in SIL 2 and others in SIL 3 either to PFK, the beneficiary's MCO (if PFK did not have a care delegation agreement with the MCO), or a community organization to serve as the single point of contact and provide integrated care coordination. The single point of contact developed and completed a care plan for their assigned beneficiaries. The Service Integration Coordinators continued to monitor the family to ensure they did not have unmet needs.

39 OhioRISE is a statewide behavioral health–focused managed care program available to children in Licking and Muskingum Counties (https://managedcare.medicaid.ohio.gov/managed-care/ohiorise).

Implementation status and reach at the end of 2023

For most beneficiaries, the single point of contact was a care coordinator within PFK or OhioRISE. A small number of beneficiaries had a single point of contact through their MCO. If neither PFK nor an MCO provided care coordination for a beneficiary, OH InCK had agreements with community-based organizations that could serve as the single point of contact for an InCK attributed beneficiary. Use of this arrangement was very limited in 2023.

OH InCK's overlap with other initiatives

Since applying for the InCK Model, the Ohio Department of Medicaid introduced a number of new initiatives within its managed care contracts, including requiring MCOs to perform care management activities originally planned to be included in OH InCK. The Department also launched OhioRISE, a specialized managed care program for children with complex behavioral health needs, which overlapped with OH InCK's SIL 3 eligibility. To avoid duplication of services, OH InCK referred such beneficiaries to these other programs.

Early Impacts on Health Care Outcomes

By the end of 2023, OH InCK had reached 9.6% of its attributed population with screen-based assessments, for which half were assigned to either SIL 2 or SIL 3. Its APM was up and running but did not reach the entire attributed population. Further, two of three APM measures are narrow in focus. Given these factors, it was not feasible to observe population-level impacts for the first two years of model implementation. Appendix A describes how the evaluation team determined this.

Conclusion

Although OH InCK made progress in implementing its approach throughout 2022 and 2023, limited beneficiary engagement and the narrow reach and focus of the OH InCK APM hindered impact. OH InCK's needs assessment approach required families to complete a screen-based assessment to finalize SIL assignment, which limited engagement relative to the size of the attributed population. Further, OH InCK was unable to establish delegated care coordination agreements with all MCOs. Without these agreements, OH InCK had no opportunity to engage roughly half of its attributed population in screen-based assessments or care coordination.

Chapter Nine

Conclusion

The Integrated Care for Kids (InCK) Model is designed to assess beneficiaries' health and non-health needs, assigning them to a Service Integration Level (SIL) and providing integrated care coordination and integrated case management services to those with the greatest needs. In the first two years of the model (2022–2023), InCK Model Award Recipients successfully implemented their approaches to needs assessment and SIL stratification. However, their ability to successfully engage beneficiaries in the process was mixed. The proportion of attributed beneficiaries engaged in the model at the end of 2023 ranged from 0.1% to 12.6%.[40] Award recipients also designed and implemented their InCK-specific Alternative Payment Model (APM) in this period. CMS granted InCK Model Award Recipients considerable flexibility in the design of their APMs. Five award recipients' APMs cover their full attributed populations, while others apply only to those in in SIL 2 and SIL 3. Further, the status of implementation varied such that some award recipients had yet to begin distributing payments as of the end of 2023. Only three award recipients had implemented both their APMs and their approach to SIL stratification at a scale that would make it feasible to detect population-level impacts at the end of 2023.

Reach of Needs Assessment and SIL Stratification at the End of 2023

Almost all award recipients use a combination of Medicaid claims, other administrative data, and data collected via screen-based assessment to finalize SIL assignments. Completing screen-based assessments is time intensive, and successfully engaging beneficiaries to complete assessments is difficult. Award recipients experienced common challenges engaging beneficiaries: out-of-date contact information, reluctance to answer phone calls from unknown numbers, lack of familiarity with the model, and general mistrust of health and social service systems. Rates of successfully completed screen-based assessments varied across award recipients, reflective of their designed approach, attributed population size, and readiness to start implementing their model beginning in 2022. None of them successfully engaged more than 13% of their population at the end of 2023.

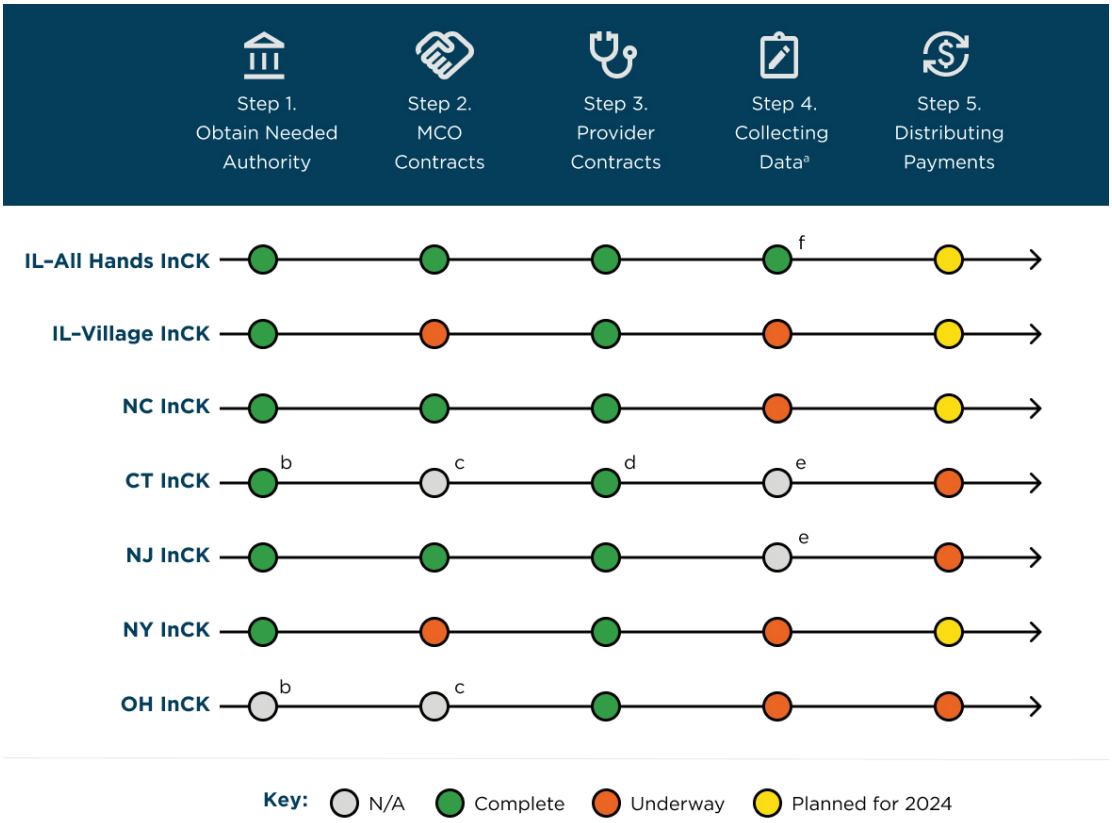
In response to initial challenges, award recipients adapted their outreach approaches. They engaged trusted community partners, targeted outreach to beneficiaries and families with the greatest anticipated needs, and shifted staff responsibility to allow more dedicated time to beneficiary outreach. For most award recipients, the number of successful screen-based assessments increased from 2022 to 2023, in part due to adaptations to their approaches. Award recipients will likely continue to adapt their approaches to align with the preferences of their attributed populations.

40 NC InCK does not conduct screen-based assessments. The evaluation uses the number of beneficiaries who are engaged in integrated care coordination and case management services as one aspect of reach of model activities for NC InCK.

APM Design and Implementation

The goal of the InCK Model APM is to improve quality of care and potentially support sustainability of model activities. Exhibit 9.1 details award recipients' progress on APM implementation in the first two years.

Exhibit 9.1. Award recipients made substantial progress on implementing their APMs.



Key: APM=Alternative Payment Model; MCO=Managed Care Organization; N/A=not applicable; InCK=Integrated Care for Kids; IL=Illinois; NC=North Carolina; CT=Connecticut; NJ=New Jersey; NY=New York; OH=Ohio.

Notes: a. The period in which award recipients were collecting data on provider performance on APM quality measures and sharing that information with providers. b. CT InCK and OH InCK did not need to obtain state or federal approval for their APMs. c. CT Medicaid is fee-for-service and therefore Connecticut did not need to establish contracts with MCOs. OH InCK's APM was added to its existing Medicaid Accountable Care Organization contracts. d. CT InCK established contracts with newly enrolled community-based providers for the purposes of InCK. e. CT InCK and NJ InCK do not include quality measures in their APMs. f. All Hands InCK completed data collection on primary care measures. As of the end of 2023 they were still finalizing details of other measures.

In the first two years of the model, award recipients made substantial progress in the design and implementation of their APMs. All obtained needed state and federal authority and established contracts with at least some Managed Care Organizations that serve their attributed populations. In 2023, some award recipients were still collecting performance data, and three had begun distributing payments to enrolled providers. Others expected to begin distributing payments in 2024.

The design of InCK-specific APMs varied across award recipients. CT InCK, NC InCK, NJ InCK, and Village InCK used their APMs in part to financially support care coordination activities for beneficiaries in SIL 2 and SIL 3. NJ InCK's APM also included a payment to providers to review the results of screen-based assessments to better integrate care. The other APMs included quality incentive payments tied to performance on specified quality measures such as well-child visits and screening for upstream drivers of health or clinical depression. The NY InCK and All Hands InCK APMs also included direct incentives to reduce total cost of care.

Future Directions

Although award recipients made significant progress in implementing the model and enrolling beneficiaries, overall reach of model activities to yield population-level impacts by the end of Implementation Year 2 were limited. The InCK Model continues through December 31, 2026. The feasibility to determine model impact on healthcare utilization, quality, and total cost of care is based on the degree to which award recipients increase the number of beneficiaries engaged in model activities and provider participation in the InCK APM. The evaluation will continue to monitor each award recipient's implementation to determine if it is possible to assess model impacts.

Appendices

Appendix A: Approach to Assessing Reach of Model Activities

To determine whether to conduct impact analyses for each award recipient in this evaluation report, the evaluation assessed each award recipient's model implementation progress as of 2023 and conducted power simulations for each award recipient. We used power simulations to estimate minimum detectable effects (MDEs) rather than a power calculation. This enabled us to capture the longitudinal structure of the data and the quasi-experimental design, including using entropy balancing weights, risk adjustment, and a difference-in-differences model with clustered standard errors.

Methodology Overview

This section provides an overview of the power simulation methodology. First, we describe the simulation process within each iteration, then detail the process for repeating iterations.

SIMULATION PROCESS WITHIN EACH ITERATION

Step 1. Limit the data to beneficiaries in the comparison region.

Step 2. From the population in Step 1, randomly assign beneficiaries to the "attributed population" or the "comparison population." Beneficiaries are drawn with replacement. If a given beneficiary is selected, their entire panel is retained for analysis.

Step 3. Manually adjust outcomes for "attributed beneficiaries" as if they had been exposed to the InCK Model. For outcomes where InCK has a hypothesized positive or negative effect, the MDE for an award recipient is the percentage increase or decrease (respectively) by which outcomes are adjusted for the attributed population to achieve 80 percent (80%) power.

Step 4. Estimate impacts on the simulated dataset using our quasi-experimental impact analysis design. This emulates the same specifications used in our impact analysis with actual data on attributed and comparison beneficiaries.

REPEATING POWER SIMULATION ITERATIONS

For each award recipient, we repeated the above simulation process 100 times. For each iteration, we flagged whether a statistically significant estimate (that is, a p-value less than or equal to 0.05) was obtained after manually adjusting the simulated attributed population's outcomes. After 100 iterations, we constructed the power estimate as the number of iterations out of 100 with a statistically significant estimate.

For this report, we obtained the MDE sizes necessary to achieve 80% power for each award recipient. If the power of an award recipient was too high or too low, we modified the manual adjustments made to the simulated study populations' outcomes and the iterations repeated. This process continued until 80% power was achieved and we obtained MDEs for all award recipients and outcome measures reported in this evaluation report.

Power Simulations Results Overview

This section details the power simulations results for each award recipient. Outcome measures used for power simulations include well-child visits (all age groups), all emergency department (ED) visits, and outpatient-only ED visits. Alongside power simulations results, we include a discussion of implementation status to explain whether impact analyses would feasibly detect an effect by InCK for each award recipient's attributed population by the end of 2023.

Exhibit A.1 displays the number of unique individuals drawn for the simulated attributed and comparison regions for each award recipient's analytic population. These numbers reflect the average annual population in each region for the years of data in our study sample.

Exhibit A.1. The number of unique individuals included in power simulations for each award recipient varies based on the size of the evaluation study population.

Award Recipient	Comparison Group N for Simulations[1]	InCK Population N for Simulations[a, 1]
IL–All Hands InCK	114,574	43,406
IL–Village InCK	31,674	11,010
NC InCK	304,598	101,210
CT InCK	34,793	10,417
NJ InCK	116,571	142,835
NY InCK	140,667	50,740
OH InCK	53,871	33,443

Key: CT=Connecticut; IL=Illinois; NC=North Carolina; NJ=New Jersey; NY=New York; OH=Ohio; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Source: 1. Interim T-MSIS Analytic Files, 2018–2023.

Notes: a. The size of the population in the evaluation's simulations differs from the attributed population reported in Exhibit 1.1. because the simulations used the average number of beneficiaries attributed to InCK in the evaluation's analytic data from 2018-2023, while Exhibit 1.1. reports the award recipients' identified attributed population for 2023.

As a result of comparing MDEs needed to achieve a sufficiently powered analysis with each award recipient's implementation status by the end of 2023, we concluded:

- It would be *unlikely to detect an impact estimate* for the InCK Model for CT InCK, NJ InCK, NY InCK, and OH InCK. We do not present impact analysis results for those award recipients in this report; we do present descriptive and other supportive analyses.
- It would be *feasible to detect an impact estimate* for the InCK Model for IL–All Hands InCK, IL–Village InCK, and NC InCK. We present impact analysis results for these award recipients in this report.

IL–ALL HANDS INCK

The MDEs (expressed as a percentage change) necessary to achieve 80% power for each outcome measure for IL-All Hands (All Hands) InCK are shown in Exhibit A.2. Using mean counts of visits during the baseline period for the InCK analytic population, we show estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention on each outcome.

Exhibit A.2. All Hands InCK would need to increase well-child visits by 748 to detect change at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	23,389	3.2% increase	748 additional visits
Outpatient ED Visits	11,982	5.0% decrease	599 fewer visits

Key: InCK=Integrated Care for Kids; ED=Emergency Department.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

All Hands InCK made substantial progress in model implementation during 2022 and 2023, summarized in Exhibit A.3. As of the end of 2023, All Hands InCK had APM contracts in place for all five Managed Care Organizations (MCOs) that serve their attributed population. Measures for the All Hands InCK APM include well-child visits. Beneficiary engagement, as measured by beneficiaries receiving a screen-based assessment, reached 739 in 2022 and 1,199 in 2023. This corresponds to approximately 2% of the attributed population in 2022 and 5% of the attributed population in 2023. By the end of 2023, All Hands InCK engaged 1,776 unique attributed beneficiaries in a screen-based assessment.

Exhibit A.3. All Hands InCK engaged more than 748 beneficiaries through the end of 2023.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[a,2]	Status of Its Alternative Payment Model[3]
2022	42,013	739	Data collection starts in Q1; first MCO contract in Q2; contracts with all MCOs by Q4.
2023	41,478	1,199	Contracts with all MCOs

Key: InCK=Integrated Care for Kids; MCO=Managed Care Organization; Q=Quarter.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries who received a screen-based assessment.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted Q1 2022–Q4 2023 Service Integration Level data. 3. All Hands InCK 2023 Annual Progress Report.

Given the status and targeted measures of All Hands InCK's APM, as well as the extent of beneficiary engagement, we concluded it was feasible for the All Hands InCK Model to have affected outcomes enough to achieve sufficient power.

IL–VILLAGE INCK

The MDEs (expressed as percentage change) necessary to achieve 80% power for each outcome measure are shown for IL-Village (Village) InCK in Exhibit A.4. Using mean counts of visits during the baseline period for the InCK analytic population, we provide estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention on each outcome.

Exhibit A.4. Village InCK would need to increase well-child visits by 430 to detect change at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	5,370	8.0% increase	430 additional visits
Outpatient ED Visits	3,775	8.0% decrease	302 fewer visits

Key: InCK=Integrated Care for Kids; ED=emergency department.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

Village InCK's implementation status and beneficiary engagement were sufficiently scaled relative to population size by the end of 2023. Though not in place in 2022, its APM was contracted with two of four MCOs by the end of 2023, as summarized in Exhibit A.5. Village InCK's APM includes incentives to increase well-child visits and reduce hospitalizations, which are aligned with impact analysis outcome measures. Village InCK engaged with 607 beneficiaries in 2022 and 1,057 beneficiaries in 2023 through a screen-based assessment. By the end of 2023, Village InCK engaged 1,456 unique attributed beneficiaries in a screen-based assessment. Its intensive approach with screen-based assessments indicates that the degree of engagement was high.

Exhibit A.5. Village InCK engaged more than 430 beneficiaries through 2023.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[a,2]	Alternative Payment Model Activity[3]
2022	11,880	607	In progress
2023	11,366	1,057	Data collection starts Q1; contracts with 2/4 MCOs at the end of 2023

Key: InCK=Integrated Care for Kids; MCO=Managed Care Organization; Q=Quarter.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries who received a screen-based assessment.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted Q1 2022–Q4 2023 Service Integration Level data files. 3. Village InCK 2023 Annual Progress Report.

Given the status and targeted measures of Village InCK's APM, as well as the extent and degree of beneficiary engagement, we concluded it was feasible for the Village InCK Model to have affected outcomes enough to achieve sufficient power.

NC INCK

The MDEs (expressed as percentage changes) necessary to achieve 80% power for each outcome measure are shown for NC InCK in Exhibit A.6. Using mean counts of visits during the baseline period for the InCK analytic population, we show estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention for each outcome.

Exhibit A.6. NC InCK would need to increase well-child visits by 2,586 to detect change at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	51,726	5.0% increase	2,586 additional visits
Outpatient ED Visits	32,134	5.0% decrease	1,607 fewer visits

Key: ED=emergency department; InCK=Integrated Care for Kids; NC=North Carolina.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

Exhibit A.7 summarizes NC InCK's implementation status and beneficiary engagement as of the end of 2023. Its APM was implemented through contracts with each MCO at the beginning of 2023, with quality measures including well-child visits for beneficiaries 0-15 months of age, and emergency department visits. NC InCK also monitors provider performance on well-child visits 15 – 30 months of age and shares performance data with providers. In addition, though NC InCK uses only administrative assessments, it does engage beneficiaries assigned to SIL 2 or 3 in integrated care coordination and case management services. According to the Q3 2023 Quarterly Progress Report, NC InCK was engaging 1,816 beneficiaries in SIL 2 or 3 in integrated care coordination and case management.

Exhibit A.7. NC InCK engaged 1,816 beneficiaries through 2023.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[2,a]	Status of Its Alternative Payment Model[3]
2022	109,945	Not available	In progress
2023	112,057	1,816	Contracts with all MCOs on January 1, 2023[b]

Key: InCK=Integrated Care for Kids; MCO=Managed Care Organization; NC=North Carolina; Q=Quarter; ED=emergency department.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries receiving care management services to date as reported in Q3 2023 Quarterly Progress Report. b. Alternative Payment Model incentives for ED visits covered all 112,057 attributed beneficiaries in 2023. Incentives for well-child visits covered attributed 18,002 beneficiaries aged 0-30 months.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted 2022 Q1–2023 Q4 Service Integration Level data. 3. NC InCK 2023 Annual Progress Report.

Given the degree of engagement with integrated care coordination and case management, power simulations indicate that it would be feasible to detect an impact of the NC InCK Model on emergency department visits. Despite not meeting the MDE on well-child visits, the design and implementation status of NC InCK's APM suggests that an additional 18,002 beneficiaries 15 months of age or younger were directly engaged by NC InCK. Subsequently, evaluation determined it would be feasible to detect an impact of the NC InCK Model on well-child visits.

CT INCK

The MDEs (expressed as a percentage change) necessary to achieve 80% power for each outcome measure are shown for CT InCK in Exhibit A.8. Using mean counts of visits during the baseline period for the InCK analytic population, we show estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention on each outcome. For example, a 4.7% increase in well-child visits would correspond to 303 additional visits.

Exhibit A.8. CT InCK would need to increase well-child visits by 303 to detect change at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	6,439	4.7% increase	303 additional visits
Outpatient ED Visits	4,676	10.0% decrease	468 fewer visits

Key: CT=Connecticut; InCK=Integrated Care for Kids; ED=emergency department.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

Through 2023, CT InCK had limited beneficiary engagement relative to the size of its attributed population. Exhibit A.9 shows that the number of beneficiaries assigned either to Service Integration Level (SIL) 2 or SIL 3 in 2022 and 2023 is fewer than 11. In addition, CT InCK's APM billing began in Quarter (Q) 3 of 2023.

Exhibit A.9. CT InCK had limited beneficiary engagement through 2023.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[a,2]	Status of Its APM[3]
2022	11,713	<11	In progress
2023	11,960	<11	Billing began in Q3 2023

Key: CT=Connecticut; InCK=Integrated Care for Kids; Q=Quarter; APM=Alternative Payment Model.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries in Service Integration Level (SIL) 2 or 3.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data files. 3. CT InCK 2023 Annual Progress Report.

Given the changes needed in outcomes at the population level to detect an impact from the CT InCK Model, we concluded it was unlikely for an impact analysis to detect population-level impacts by CT InCK on their attributed population at this stage of implementation.

NJ INCK

The MDEs (expressed as the percentage change) necessary to achieve 80% power for each outcome measure are shown for NJ InCK in Exhibit A.10. Using mean counts of visits during the baseline period for the InCK analytic population, we show estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention for each outcome.

Exhibit A.10. NJ InCK would need to increase well-child visits by 2,138 to detect change at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	112,548	1.9% increase	2,138 additional visits
Outpatient ED Visits	31,861	3.1% decrease	988 fewer visits

Key: NJ=New Jersey; InCK=Integrated Care for Kids; ED=emergency department.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

NJ InCK relies on a combination of administrative and claims-based assessments for SIL assignment. With respect to the entire attributed population, NJ InCK has thus far assigned few beneficiaries to SIL 2 or SIL 3. Exhibit A.11 shows that SILs 2 and 3 represent 125 beneficiaries in 2022 and 505 beneficiaries in 2023. In addition, though NJ InCK's APM has been in place with all MCOs contracted since 2022, the APM measures thus far are limited to a small proportion of their attributed population. NJ InCK's APM includes two components: 1. A payment to providers to review results of the HealthStory for any beneficiary who has completed one and 2. Payments to the Advanced Care Management Team to provide integrated care coordination and case management services to beneficiaries in SIL 2 and SIL 3.

Exhibit A.11. NJ InCK had limited beneficiary engagement through 2023.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[2,a]	Alternative Payment Model Activity[3]
2022	154,189	125	Contracts with all MCOs
2023	160,458	505	Contracts with all MCOs

Key: InCK=Integrated Care for Kids; MCO=Managed Care Organization; NJ=New Jersey; Q=Quarter.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries in Service Integration Level (SIL) 2 or 3.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data. 3. NJ InCK 2023 Annual Progress Report.

With limited beneficiary engagement and plausible APM impacts on outcome measures, we concluded it was unlikely for an impact analysis to detect meaningful impacts by NJ InCK on their attributed population at this stage of implementation.

NY INCK

The MDEs (expressed as percentage change) necessary to achieve 80% power for each outcome for NY InCK. Using mean counts of visits during the baseline period for the InCK analytic population, we provide estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention for each outcome.

Exhibit A.12. NY InCK would need to increase well-child visits by 790 to detect change at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	21,346	3.7% increase	790 additional visits
Outpatient ED Visits	17,141	5.2% decrease	891 fewer visits

Key: InCK=Integrated Care for Kids; NY=New York; ED=emergency department.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

Exhibit A.13 shows that NY InCK has had a limited reach due to the APM implementation status and direct engagement with beneficiaries as of the end of 2023. Its APM contracts were not in place in 2022, and it had contracts with two MCOs, accounting for about 25% of the attributed population, by the end of 2023. However, only one contract was fully executed. The other was still in negotiation at the end of 2023. NY InCK assigned 27 beneficiaries in 2022 and 129 beneficiaries in 2023 to SIL 2 or SIL 3, a low number relative to its attributed population.

Exhibit A.13. NY InCK had limited beneficiary engagement through 2023.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[2,a]	Status of Its Alternative Payment Model[3]
2022	37,902	27	In progress
2023	56,710	129	First contract in place January 1, 2023

Key: InCK=Integrated Care for Kids; NY=New York; Q=Quarter.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries in Service Integration Level (SIL) 2 or 3.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data. 3. NY InCK 2023 Annual Progress Report.

With NY InCK's limited APM implementation and engagement of beneficiaries, we concluded it was unlikely for an impact analysis to detect meaningful population-level impacts by NY InCK on their attributed population at this stage of implementation.[41]

OH INCK

The MDEs (expressed as percentage change) necessary to achieve 80% power for each outcome measure are shown for OH InCK in Exhibit A.14. Using mean counts of visits during the baseline period for the InCK analytic population, we provide estimates for the unit change that would be necessary at the population level during the implementation period for evaluation analyses to detect an effect of the model intervention for each outcome.

Exhibit A.14. OH InCK would need to increase well-child visits by 1,151 to detect impacts at the population level.

Outcome Measure	Baseline Mean[a]	Percentage Change for 80% Power[b]	Unit Change at Population Level[b]
Well-Child Visits	26,761	4.3% increase	1,151 additional visits
Outpatient ED Visits	20,756	5.2% decrease	1,079 fewer visits

Key: InCK=Integrated Care for Kids; OH=Ohio; ED=emergency department.

Notes: a. Baseline means reported for each outcome measure are the average number of visits for the attributed population at the annual level during the baseline period. b. The minimum detectable effects necessary for an impact analysis with 80% power are reported as a percentage change and as a unit change at the population level by multiplying the baseline mean by the percentage change.

OH InCK's implementation status as of the end of 2023 reflects limited beneficiary engagement and an APM in progress. Exhibit A.15 displays the estimated number of directly engaged beneficiaries in 2022 and 2023 as measured by beneficiaries in SIL 2 or 3. OH InCK does not confirm a SIL assignment until beneficiaries have completed both an administrative assessment followed by a screen-based assessment, which limits direct engagement relative to the size of the attributed population. In addition, though OH InCK's APM has continued to scale up since 2022, with contracts established with five of seven MCOs as of the end of 2023, it only covers 50% of the attributed population at the end of 2023.

41 We do not report trends in outcomes for NY InCK in Appendix D due to a data issue described on page 98. However, we report power analyses for NY InCK to provide additional context regarding the extent to which engagement approached the levels necessary for statistical analysis.

Exhibit A.15. OH InCK's APM was limited in its impact on well-child visits.

Year	Attributed Population[1]	Expected Number of Directly Engaged Beneficiaries[2,a]	Alternative Payment Model Activity[3]
2022	32,791	67	First MCO contract in Q1 2022; two MCO contracts in Q2 2022
2023	33,857	1,470	Contracts with 5/7 MCOs in Q4 2023

Key: APM=Alternative Payment Model; InCK=Integrated Care for Kids; MCO=Managed Care Organization; OH=Ohio; Q=Quarter.

Notes: a. Expected number of directly engaged beneficiaries reflects the number of beneficiaries in Service Integration Level (SIL) 2 or 3.

Sources: 1. Award recipient-submitted 2022–2023 Retrospective Attribution Files. 2. Award recipient-submitted Q1 2022–Q4 2023 SIL data. 3. OH InCK 2022–2023 Annual Progress Reports.

Due to OH InCK's current implementation status, we concluded from the power simulation results that it was unlikely for an impact analysis to detect meaningful population-level impacts by OH InCK on their attributed population at this stage of implementation.

Appendix B: Data Sources

Exhibit B.1. The InCK Model Evaluation used numerous data sources to inform Evaluation Report 3.

Data Source	Research Question[a]	Purpose	Analytic Approach	Period of Activities
Award Recipient Documents	1	• Augment the evaluation team's understanding of each award recipient's model. • Classify the context within which the model is operating. • Identify changes during program implementation. • Prepare site visit teams for interviews with award recipients, model partners, local clinicians, beneficiaries, and caregivers. • Identify explanatory variables that could affect model implementation or outcomes.	1. Conduct content analysis and synthesis of data abstracted into award recipient–specific abstraction tools. 2. Review findings within and across award recipients.	Quarterly
Virtual and In-Person Site Visits[b]	1	• Provide award recipient-specific information on model design, local context, implementation, clinician and beneficiary/family engagement, other care redesign activities, and both facilitators and barriers of successful implementation.	1. Conduct within- and across-case thematic analyses using a universal codebook in qualitative analytic software (Dedoose). 2. Produce a memorandum describing findings for each award recipient.	Spring 2023
RAF	2, 3, 4	• Obtain identifying information and Medicaid eligibility dates for the award recipients' attributed populations. • Describe award recipients' attributed population. • Link data across files.	1. Conduct analyses for quality control. 2. Produce detailed memoranda addressed to award recipients. 3. Use identifying information and eligibility dates to extract Medicaid eligibility, claims, and encounter data for attributed populations from T-MSIS files.	Semi-annually
RCF	2, 3, 4	• Identify comparison beneficiaries. • Describe comparison beneficiary demographics and eligibility. • Link data across files.	1. Conduct analyses for quality control. 2. Use identifying information and eligibility dates to extract Medicaid eligibility, claims, and encounter data for comparison population from T-MSIS files	Semi-annually
SIL data	2, 3	• Determine the needs of beneficiaries across CCS areas.	1. Run frequencies against RAF. 2. Develop measure specifications. 3. Conduct analyses to describe needs of the attributed populations.	Quarterly
T-MSIS Files	2, 4	• Conduct Impact Study using difference-in-differences analysis to identify effects of InCK among attributed beneficiaries. • Define and measure baseline and implementation periods' primary outcomes of the Impact Study. • Obtain beneficiary characteristics to use as covariates in the Impact Study.	1. Develop entropy balance weights to balance distribution of key covariates across InCK and comparison groups. 2. Assess evidence of parallel trends in outcomes between InCK and comparison attributed beneficiaries. 3. Conduct difference-in-differences regression analysis to estimate impacts of InCK on population outcomes.	Monthly

Data Source	Research Question[a]	Purpose	Analytic Approach	Period of Activities
Area Health Resource File	2, 4	• Obtain county-level characteristics to use as covariates in the Impact Study.	Merge county-level data onto the analytic files using county identifiers to enable inclusion of these characteristics in the development of entropy balance weights and as covariates in regression analyses for estimating impacts of InCK.	Annually
COVID-19 Data[1]	2, 4	• Obtain county-level COVID-19 case rates, including infections and deaths per 100,000 people per month.	Merge county-month-level COVID-19 data onto the analytic files using county identifiers to enable inclusion of these infection and death rates as covariates in regression analyses for estimating impacts of InCK.	Annually

Key: InCK=Integrated Care for Kids; CCS=Core Child Services; RAF=Retrospective Attribution File; RCF=Retrospective Comparison File; T-MSIS=Transformed Medicaid Statistical Information; SIL=Service Integration Level.

Notes: a. Four research questions provide the focus for the InCK Model Evaluation: (1) How was the InCK Model implemented by each award recipient? (2) How has the InCK Model implemented by each award recipient affected children and families in the following four areas: navigation and coordination, utilization and expenditures, quality of care, and beneficiary and caregiver experience of care? (3) To what extent did service changes or disruptions (for example, transitioning between SILs, lapses in coverage or eligibility, delays in services, discontinuation of care) occur in the InCK Model, and what impact did they have on care delivery by each award recipient? (4) To what extent do the effects of the InCK Model vary? b. Interviewees included Lead Organizations, frontline InCK staff (Service Integration Coordinators or local equivalents), medical clinicians and CCS providers, Partnership Council members, beneficiaries, and caregivers.

Sources: 1. https://usafacts.org/

Appendix C: Qualitative Methods

In this third Integrated Care for Kids (InCK) Evaluation Report, we used documents submitted by award recipients and qualitative data collected through hybrid (in-person and virtual) site visits. This appendix summarizes our data collection/acquisition and analysis methods.

In 2022 and 2023, we undertook four activities to inform qualitative analysis for this report:

1. Conducted a systematic data extraction of award recipient Standard Operating Procedures (SOPs).
2. Reviewed award recipient–submitted documents, such as Quarterly and Annual Progress Reports, model operational plans, and SOPs.
3. Observed and developed detailed notes during monthly or bi-weekly Centers for Medicare & Medicaid Services (CMS) Project Officer (PO) calls with award recipients.
4. Conducted hybrid site visits with award recipients.

SOP Data Extraction

Data collection teams examined each award recipient's SOPs as of June 2022 and extracted key data. We used secondary analysis of SOPs to confirm preliminary case study findings and inform this Evaluation Report.

PROCESS

Step 1. Develop an inventory of award recipient–submitted SOPs. Evaluation team leadership reviewed and catalogued award recipients' SOP for needs assessment and stratification and the SOP for service integration.

Step 2. Identify key variables and develop an extraction tool.

Exhibit C.1. The data collection teams extracted the following data elements from each SOP.

Needs Assessment and Stratification SOP	Service Integration SOP
• Information on the attributed population • Eligibility criteria for each SIL • Process for assessing needs and determining SIL stratification	• Role of Service Integration Coordinators • Information sharing • Tracking referrals • Beneficiary engagement in service integration • Methods for ensuring access to care • Methods for ensuring family-centered care and communication

Key: SOP=Standard Operating Procedure; SIL=Service Integration Level.

The extraction tool was a series of Microsoft Teams forms with set open-ended fields to document findings. Data elements from each submitted form populated an Excel spreadsheet that contained the data for all award recipients.

Step 3. Trained full evaluation team, extracted data, and reviewed results. Evaluation team leadership trained all data collection team members on the extraction tool. Each data collection team then reviewed each SOP and captured the specified data elements using the tool. Evaluation team leadership then reviewed the extracted data and followed up with the data collection team with any questions or requests for clarification. Based on their responses, evaluation team leadership updated the extracted data as needed.

RESULTS

The data collection teams captured each data element for each award recipient in an Excel file.

Project Officer (PO) Calls

Award recipients participate in monthly or bi-weekly calls with their CMS PO to provide updates on implementation progress, discuss challenges, pose questions, and request technical assistance. One member of each data collection team observes monthly PO calls. Observations of PO calls allow the evaluation team to:

- Get real-time insight into award recipient implementation activities, successes, and challenges.
- Identify contextual factors that could influence local model design or implementation.
- Identify explanatory variables that could affect model implementation or impact.

The team member observing the PO call develops detailed notes, with key points from the discussion, and shares notes with the evaluation team. Data collection teams review the notes to prepare for site visits.

Award Recipient Document Review

The data collection teams reviewed documents that award recipients submitted in 2022 and 2023.

PROCESS

Step 1. Develop an inventory of award recipient–submitted documents. Evaluation team leadership reviewed and catalogued materials submitted by each award recipient, including model operational plans, Quarterly and Annual Progress Reports, and draft SOPs.

Step 2. Review documents. Each data collection team reviewed the documents to identify the award recipient's progress during implementation. Specifically, reviews focused on the award recipient's approach to needs assessment, Service Integration Level (SIL) stratification, and service integration; service availability and access in the attributed region; and support for implementing the InCK Model, including investments and Partnership Council activities.

RESULTS

Exhibit C.2 lists the sources the evaluation included in the document review.

Exhibit C.2. The Evaluation Team reviewed award recipient-submitted documents from the first two years of the implementation period.

- Operational Plan Model Years 3–4 (2022–2023).
- Quarterly Progress Reports: Model Year 3 Q1–Q3 (2022); Model Year 4 Q1–Q3 (2023).
- Annual Progress Reports: 2022 and 2023.
- Standard Operating Procedures for Needs Assessment & Stratification (revised fall 2022).
- Standard Operating Procedures for Service Integration (revised fall 2022).

Key: Q=Quarter.

We used the information from the document review to determine data collection approaches (for example, interview, focus group, or journey mapping), interview and focus group protocols, site visit preparation, data analysis, and case study report content.

Award Recipient Site Visits

Data collection teams conducted hybrid site visits with each award recipient between March 2023 and July 2023. Teams interviewed Lead Organization staff, Partnership Council members, frontline InCK Model Staff,[42] local clinicians, and attributed beneficiaries and caregivers in the award recipients' attributed regions.

PROCESS

Step 1. Develop and tailor protocols. Evaluation team leadership used the Practical, Robust Implementation and Sustainability Model (PRISM)[43] framework to identify topics and participant types for individual and small group interviews, focus groups using image prompts, and journey mapping activities.

Evaluation team leadership developed standard semi-structured interview protocols for each type of participant interview listed above. Data collection teams used journey mapping protocols for interviews with beneficiaries and caregivers. Each data collection team tailored the protocols for their assigned award recipient based on findings from the document review and participation in calls with the CMS PO.

In addition to semi-structured interviews and journey mapping, the data collection teams conducted focus groups with image prompts. During these focus groups, the teams used images to assess the immediate reactions and understanding of respondents and to facilitate a conversation about respondent priorities and life experiences. Respondents discussed what the images meant to them, how the images represented their experiences and perceptions, and whether other group members had similar or different perceptions.

The data collection team for North Carolina (NC) InCK piloted the recruitment processes and interview protocols during their first site visit in May 2023. Based on the pilot, the evaluation team leadership updated materials for subsequent site visits.

Step 2. Engage interviewees. Data collection teams worked with each award recipient Lead Organization to identify interviewees with specific model roles to participate in the site visit. Exhibit C.3 summarizes respondent roles, target number of interviewees, and topics for each interview.

42 Frontline staff include Service Integration Coordinators and similar staff who serve in care coordination roles. At the NY InCK site visit, this included staff from the Health Homes Serving Children and Bronx-PEACH (Bronx–Promote Earned Income Tax Credit to Support At-Risk Children). IL–Village InCK frontline staff included a wellness coach and a community engagement specialist/resource coordinator.

43 PRISM provides the framework guiding the overall research design of the InCK Evaluation. The evaluation team is applying the PRISM framework for two main reasons: (a) the framework prioritizes the perspectives of children, their caregivers, and local clinicians as central to understanding the implementation and impact of the model; and (b) the framework emphasizes that successful implementation of the model depends on local context and alignment of the model to pre-existing initiatives, structures, and policies.

Exhibit C.3. The InCK Model Evaluation Team interviewed a broad set of respondents as part of site visits.

Respondent Role	Method	Target Number of Respondents per Award Recipient	Topics Covered
Frontline InCK Staff–Service Integration Coordinators and Other Care Coordinators	1:1 or small group interview(s)	3–6	• Approach to and implementation of needs assessment and SIL assignment; service integration and integrated care coordination; and case management services. • Target population needs, challenges accessing care, and CCS availability. • Alignment of InCK Model Elements with other policies and programs. • Uptake of screening/assessment tools and beneficiary engagement. • Training for staff and clinicians, and clinician buy-in. • Adoption of new technology platforms. • Sustainability.
InCK Model Beneficiaries and Caregivers	1:1 journey mapping interview(s)	6–8	• Challenges in accessing necessary care, needs, and CCS availability. • Experience with the InCK Model Service Integration Approach and with screening/assessment tools. • Adoption of new technology platforms and data sharing between clinicians, including CCS providers, and with beneficiaries and caregivers. • Beneficiary engagement and opt outs.
InCK Model Patient and Family Advisory Council Members	Image prompt focus group	4–8	• Experience serving on the local InCK Model Patient, Family, and Youth Advisory Council. • Experience accessing medical care, supportive therapies, and other needed services.
Key Partners, Partnership Council Members–CCS	1:1 or small group interview(s)	4–6	• Partnership Council role and engagement. • Challenges in accessing care, target population needs, and CCS availability. • Alignment of InCK Model Elements with other policies and programs; and changes to state Medicaid program and CCS policies that could affect the InCK Model Population. • Training for frontline staff and clinicians. • Sustainability.
Lead Organization Leadership	Small group interview(s)	2–3	• Approach to and implementation of needs assessment, SIL assignment, and service integration. • Partnership Council role and engagement. • Alignment of InCK Model Elements with other policies and programs. • CCS availability and access challenges. • Training for frontline staff and clinicians, and clinician buy-in. • Adoption of new technology platforms. • Sustainability.
Clinicians – Obstetrician/ Gynecologist or Midwife	1:1 interview	2–3	• Challenges experienced by beneficiaries with accessing care and CCS availability. • Alignment of InCK Model Elements with other policies and programs. • Uptake of InCK Model Activities (new APM, screening/assessment tools, new technology platforms). • Training for frontline staff and clinicians, and clinician buy-in. • Data sharing between clinicians, including health and CCS providers, and between clinicians and beneficiaries/caregivers.
Clinicians – Pediatric Behavioral Health	1:1 interview	2–3	
Clinicians – Pediatrician	1:1 interview	2–3	

Key: InCK=Integrated Care for Kids Model; SIL=Service Integration Level; CCS=Core Child Services; APM=Alternative Payment Model.

Step 2. Convene site visits. Data collection teams conducted hybrid site visits over three days between March 2023 and July 2023. The team conducted interviews either in person or by video conferencing, depending on interviewees' preferences. A senior researcher led each interview, and a junior researcher took notes. If respondents consented, the team recorded interviews. Exhibit C.4 summarizes the number of respondents from each award recipient by respondent type.

Exhibit C.4. The number of site visit respondents varied by type and InCK Model Award Recipient.

Respondent Type	Award Recipient						
	CT InCK	IL–All Hands InCK	IL–Village InCK	NC InCK	NJ InCK	NY InCK	OH InCK
Frontline InCK Staff – Service Integration Coordinators and Other Care Coordinators	3	3	4[b]	5	3	5[d]	6
InCK Model Beneficiaries and Caregivers	1	2	5	2[c]	6	6	2
InCK Model Patient and Family Advisory Council Members	3	0	0	6	0	3	4
Key Partners, Partnership Council Members; CCS Providers	3	4	5	4	5	11[e]	2
Lead Organization Leadership	4	2	4	4	8	4	5
Clinicians – Obstetrician/Gynecologist or Midwife[a]	0	N/A	N/A	N/A	N/A	2	N/A
Clinicians – Pediatric Behavioral Health	1	3	2	2	2	0	1
Clinicians – Pediatric Primary Care	1	2	1	2	3	1	2

Key: InCK=Integrated Care for Kids; CCS=Core Child Services; N/A=not applicable; CT=Connecticut; IL=Illinois; NC=North Carolina; NJ=New Jersey; NY=New York; OH=Ohio.

Notes: a. The evaluation team included obstetricians/gynecologists as a priority respondent type for site visits with CT InCK and NY InCK because these two award recipients include pregnant and postpartum beneficiaries ages 21 years and older in their attributed populations. b. One of the IL–Village InCK frontline staff is a wellness coach, and one is a community engagement specialist/resource coordinator. c. One of the NC InCK caregivers is a state-appointed legal guardian of a child in foster care. This person is a social worker at the state's child welfare agency. d. Includes three people from the Medicaid Health Homes Serving Children program, whom we interviewed separately. e. Frontline staff from NY InCK included Service Integration Coordinators, staff from the Medicaid Health Homes Serving Children program, and staff from Bronx–Promote Earned Income Tax Credit to Support At-Risk Children (Bronx-PEACH). The Bronx-PEACH program helps residents prepare their taxes and apply for the Earned Income Tax Credit.

Step 3. Analyze data. Following each completed site visit, the data collection team reviewed and cleaned interview transcriptions (for example, removed any personal identifying information, unnecessary jargon, or misspellings) and then coded and analyzed the data using Dedoose.[44]

The site visit team analyzed each award recipient's approach to:

- Needs assessment and SIL stratification
- Service availability and access in the attributed region
- Approach to service integration
- Support for implementing the InCK Model including investments and Partnership Council activities

The team used a deductive codebook to apply a standard set of codes across all site visit data. Site visit teams then reviewed coded output to identify key themes.

Following the document review and site visits, we conducted secondary analysis of the coded output from Dedoose to identify key themes across award recipients related to the implementation of their needs assessment and SIL stratification approaches and their strategies for beneficiary outreach and engagement.

44 Dedoose is a cloud-based software enabling intra-organizational data sharing and analysis of text and media data, as well as import and assignment of discrete data points (for example, respondent demographics) to project data sources.

Appendix D: Outcome Trends and Population-Level Characteristics of Award Recipients

Appendix D reports descriptive trends of health care utilization and cost measures for Integrated Care for Kids (InCK) Model Award Recipients. Exhibits D.1 – D.12 include data on all attributed beneficiaries during the pre-implementation (2020-2021) and implementation (2022-2023) periods and are presented by award recipient. This appendix also reports average demographic characteristics and chronic condition diagnoses of the attributed populations and their comparison groups during 2023. Exhibits D.13 and D.14 detail these data.

Claims, cost, and demographic data are sourced from Interim Transformed Medicaid Statistical Information System (T-MSIS) analytic files accessed through the Centers for Medicare & Medicaid Services' Chronic Conditions Warehouse. The evaluation constructs the analytic sample using award recipient-submitted Retrospective Attribution Files.

Exhibit D.1. Emergency department visits increased over time for the All Hands InCK attributed population, while well-child visits remained relatively stable.

Utilization Distribution (number per 1,000 beneficiaries per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Well-Child Visits	Pre-Implementation	155.4	71.9	101.3	154.5
	Implementation	155.9	79.8	108.6	154.6
Outpatient ED Visits	Pre-Implementation	78.8	35.0	61.0	94.0
	Implementation	115.4	65.5	85.8	135.2

Key: InCK=Integrated Care for Kids; ED=emergency department; T-MSIS=Transformed Medicaid Statistical Information System.

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020-2023 Retrospective Attribution Files.

Exhibit D.2. Total cost of care increased for the All Hands InCK attributed population. Other services costs were the main driver of increased costs.

Cost Distribution (dollars per beneficiary per quarter)					
	Mean	25th Percentile	Median	75th Percentile	
Total Cost of Care[a]	Pre-Implementation	$264	$111	$183	$333
	Implementation	$445	$221	$235	$608
Other Services Cost[b]	Pre-Implementation	$188	$91	$135	$231
	Implementation	$326	$182	$206	$427
Inpatient Cost	Pre-Implementation	$98	$7	$14	$30
	Implementation	$150	$17	$27	$53
Pharmacy Cost	Pre-Implementation	$33	$9	$12	$24
	Implementation	$47	$13	$17	$48

Key: InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Total Cost of Care (TCOC) is a measure comprising four cost categories: Other Services, Inpatient, Pharmacy, and Long-Term Care (LTC). Long Term Care results are not shown because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. We cap TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and the component for LTC spending is not shown. b. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020–2023 Retrospective Attribution Files.

Exhibit D.3. Well-child visits decreased over time for the Village InCK attributed population. Emergency department visits increased during the same time period.

Utilization Distribution (number per 1,000 beneficiaries per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Well-Child Visits	Pre-Implementation	137.8	46.3	68.0	127.2
	Implementation	125.8	44.7	57.7	114.9
Outpatient ED Visits	Pre-Implementation	96.5	51.1	75.9	110.9
	Implementation	129.6	77.5	99.3	149.2

Key: InCK=Integrated Care for Kids; ED=emergency department; T-MSIS=Transformed Medicaid Statistical Information System.

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020-2023 Retrospective Attribution Files.

Exhibit D.4. Total cost of care increased over time for the Village InCK attributed population. Other services costs were the main driver of increased costs.

Cost Distribution (dollars per beneficiary per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Total Cost of Care[a]	Pre-Implementation	$312	$124	$194	$407
	Implementation	$443	$194	$240	$600
Other Services Cost[b]	Pre-Implementation	$217	$99	$154	$257
	Implementation	$317	$164	$199	$391
Inpatient Cost	Pre-Implementation	$38	$2	$4	$8
	Implementation	$68	$4	$8	$17
Pharmacy Cost	Pre-Implementation	$54	$13	$19	$44
	Implementation	$69	$17	$25	$63

Key: InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Total Cost of Care (TCOC) is a measure comprising four cost categories: Other Services, Inpatient, Pharmacy, and Long Term Care (LTC). LTC results are not shown because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. We cap TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and the component for LTC spending is not shown. b. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020–2023 Retrospective Attribution Files.

Exhibit D.5. Well-child and emergency department visits remained relatively stable over time for the NC InCK attributed population.

Utilization Distribution (number per 1,000 beneficiaries per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Well-Child Visits	Pre-Implementation[a]	134.8	59.2	80.4	113.0
	Implementation	133.6	56.5	77.0	113.1
Outpatient ED Visits	Pre-Implementation	83.7	49.8	63.7	94.7
	Implementation	89.0	50.6	66.8	102.6

Key: NC=North Carolina; InCK=Integrated Care for Kids; ED=emergency department; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Pre-Implementation period for NC InCK is defined as the last six months of 2021. We chose to use the last six months of 2021 as the pre-implementation period for NC InCK because this was the only period of time prior to the implementation of NC InCK during which NC Medicaid beneficiaries were enrolled in comprehensive managed care to an extent that is comparable to managed care prevalence during the NC InCK implementation period.

Sources: 1. Interim T-MSIS Analytic Files, 2021-2023. 2. Award recipient-submitted 2021-2023 Retrospective Attribution Files.

Exhibit D.6. Total cost of care increased over time for the NC InCK attributed population. Inpatient costs were the main driver of increased costs.

Cost Distribution (dollars per beneficiary per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Total Cost of Care[a]	Pre-Implementation[b]	$650	$300	$349	$787
	Implementation	$745	$329	$388	$869
Other Services Cost[c]	Pre-Implementation	$489	$253	$295	$564
	Implementation	$534	$265	$316	$587
Inpatient Cost	Pre-Implementation	$100	$14	$23	$40
	Implementation	$164	$24	$36	$67
Pharmacy Cost	Pre-Implementation	$76	$21	$29	$60
	Implementation	$81	$23	$31	$73

Key: NC=North Carolina; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Total Cost of Care (TCOC) is a measure comprising four cost categories: Other Services, Inpatient, Pharmacy, and Long-Term Care (LTC). LTC results are not shown because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. We cap TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and the component for LTC spending is not shown. b. Pre-Implementation period for NC InCK is defined as the last six months of 2021. We chose to use the last six months of 2021 as the pre-implementation period for NC InCK because this was the only period of time prior to the implementation of NC InCK during which NC Medicaid beneficiaries were enrolled in comprehensive managed care to an extent that is comparable to managed care prevalence during the NC InCK implementation period. c. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Sources: 1. Interim T-MSIS Analytic Files, 2021-2023. 2. Award recipient-submitted 2021–2023 Retrospective Attribution Files.

Exhibit D.7. Emergency department visits increased over time for the CT InCK attributed population, while well-child visits remained relatively stable.

Utilization Distribution (number per 1,000 beneficiaries per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Well-Child Visits	Pre-Implementation	176.1	89.1	118.1	157.7
	Implementation	177.1	92.9	121.5	157.3
Outpatient ED Visits	Pre-Implementation	126.7	63.3	96.3	147.6
	Implementation	173.3	93.7	127.7	203.8

Key: CT=Connecticut; InCK=Integrated Care for Kids; ED=emergency department; T-MSIS=Transformed Medicaid Statistical Information System.

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020-2023 Retrospective Attribution Files.

Exhibit D.8. Total cost of care increased over time for the CT InCK attributed population. Other services costs were the main driver of increased costs.

Cost Distribution (dollars per beneficiary per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Total Cost of Care[a]	Pre-Implementation	$764	$291	$372	$961
	Implementation	$900	$347	$403	$1,117
Other Services Cost[b]	Pre-Implementation	$491	$229	$292	$573
	Implementation	$580	$273	$305	$659
Inpatient Cost	Pre-Implementation	$195	$29	$46	$123
	Implementation	$207	$35	$50	$136
Pharmacy Cost	Pre-Implementation	$103	$24	$37	$130
	Implementation	$133	$31	$44	$161

Key: CT=Connecticut; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Total Cost of Care (TCOC) is a measure comprising four cost categories: Other Services, Inpatient, Pharmacy, and Long-Term Care (LTC). LTC results are not shown because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. We cap TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and the component for LTC spending is not shown. b. Other Services is broadly defined as Fee-for-Service payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020–2023 Retrospective Attribution Files.

Exhibit D.9. Emergency department visits increased over time for the NJ InCK attributed population, while well-child visits remained relatively stable.

Utilization Distribution (number per 1,000 beneficiaries per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Well-Child Visits	Pre-Implementation	210.9	113.3	148.6	188.9
	Implementation	209.0	119.1	150.5	184.0
Outpatient ED Visits	Pre-Implementation	60.8	24.7	43.6	74.5
	Implementation	74.6	33.1	55.9	91.4

Key: NJ=New Jersey; InCK=Integrated Care for Kids; ED=emergency department; T-MSIS=Transformed Medicaid Statistical Information System.

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020-2023 Retrospective Attribution Files.

Exhibit D.10. Total cost of care increased over time for the NJ InCK attributed population. Other services costs were the main driver of increased costs while inpatient and pharmacy costs remained stable.

Cost Distribution (dollars per beneficiary per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Total Cost of Care[a]	Pre-Implementation	$515	$232	$302	$628
	Implementation	$598	$271	$328	$719
Other Services Cost[b]	Pre-Implementation	$406	$191	$262	$474
	Implementation	$476	$224	$290	$544
Inpatient Cost	Pre-Implementation	$91	$9	$14	$37
	Implementation	$89	$10	$16	$39
Pharmacy Cost	Pre-Implementation	$39	$14	$20	$33
	Implementation	$43	$16	$23	$38

Key: NJ=New Jersey; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Total Cost of Care (TCOC) is a measure comprising four cost categories: Other Services, Inpatient, Pharmacy, and Long-Term Care (LTC). LTC results are not shown because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. We cap TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and the component for LTC spending is not shown. b. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020–2023 Retrospective Attribution Files.

This evaluation report does not include trends for NY InCK due to a data artifact that caused a discrepancy between the pre-implementation and implementation periods in the proportion of pregnant beneficiaries over 20 attributed to NY InCK. While the difference was too small to affect the validity of power simulations, small differences across time periods could bias estimated trends.

Exhibit D.11. Emergency department visits increased over time for the OH InCK attributed population, while well-child visits remained relatively stable.

Utilization Distribution (number per 1,000 beneficiaries per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Well-Child Visits	Pre-Implementation	214.5	93.1	130.9	198.0
	Implementation	206.4	92.5	125.9	184.8
Outpatient ED Visits	Pre-Implementation	166.6	91.9	135.9	204.6
	Implementation	183.0	107.8	159.3	227.2

Key: OH=Ohio; InCK=Integrated Care for Kids; ED=emergency department; T-MSIS=Transformed Medicaid Statistical Information System.

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020-2023 Retrospective Attribution Files.

Exhibit D.12. Total cost of care decreased over time for the OH InCK attributed population. Both other services and inpatient costs were the main drivers of decreased costs while pharmacy costs remained stable.

Cost Distribution (dollars per beneficiary per quarter)					
		Mean	25th Percentile	Median	75th Percentile
Total Cost of Care[a]	Pre-Implementation	$543	$203	$252	$707
	Implementation	$473	$180	$224	$616
Other Services Cost[b]	Pre-Implementation	$366	$167	$213	$442
	Implementation	$333	$151	$189	$406
Inpatient Cost	Pre-Implementation	$162	$11	$19	$63
	Implementation	$108	$6	$12	$34
Pharmacy Cost	Pre-Implementation	$75	$16	$21	$86
	Implementation	$72	$16	$23	$80

Key: OH=Ohio; InCK=Integrated Care for Kids; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. Total Cost of Care (TCOC) is a measure comprising four cost categories: Other Services, Inpatient, Pharmacy, and Long-Term Care (LTC). LTC results are not shown because LTC spending is rare and concentrated among a very small fraction of beneficiaries who are medically complex and have unusually high TCOC. We cap TCOC at the 99th percentile, and most beneficiaries with LTC exceed that cap, which means LTC costs have only marginal contribution to our TCOC results. Cost components do not sum to the TCOC because the TCOC and each component were separately capped at the 99th percentile and the component for LTC spending is not shown. b. Other Services is broadly defined as Fee-for-Service and Medicaid managed care payments to providers for any health care service not billed as an institutional claim (e.g., outpatient services, home and community-based services).

Sources: 1. Interim T-MSIS Analytic Files, 2020-2023. 2. Award recipient-submitted 2020–2023 Retrospective Attribution Files.

Exhibit D.13. Award recipients are testing their local InCK Model in distinctively unique populations and within state-specific healthcare policy and financing contexts (2023 characteristics).

	IL-All Hands InCK		IL-Village InCK		NC InCK		CT InCK		NJ InCK		NY InCK		OH InCK	
	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp
Number of attributed beneficiaries	40,522	108,620	11,155	33,139	106,749	320,785	11,701	39,402	156,088	125,033	54,310	122,727	33,785	55,202
Age ≤ 15 mos. (%)	7.9	7.8	9.5	9.6	10.1	9.1	8.5	9.6	10.7	8.2	9.2	9.6	9.6	9.4
Age 16 – 30 mos. (%)	4.7	4.7	5.5	6.0	6.0	5.9	5.0	5.1	6.5	5.3	5.6	5.9	5.8	5.5
Age 31 mos. to 6 years (%)	19.0	19.2	20.8	21.6	21.6	21.9	19.0	18.9	22.9	20.7	20.0	20.6	22.0	20.8
Age 7 – 11 years (%)	23.2	23.4	24.1	23.3	23.6	24.0	20.7	21.3	23.8	23.7	21.2	21.6	24.0	23.7
Age 12 – 20 years (%)	45.1	45.0	40.2	39.6	38.6	39.1	36.7	36.4	36.1	42.1	35.1	36.2	38.6	40.6
Age ≥ 21 years (%)	N/A	N/A	N/A	N/A	N/A	N/A	9.9	8.6	N/A	N/A	6.8	4.6	N/A	N/A
Comprehensive MCO (%)	93.4	93.1	86.3	83.7	90.3	89.6	N/A	N/A	97.8	95.1	83.5	87.5	96.0	93.7
English as primary language (%)[c]	63.0	65.4	74.2	73.7	64.1	67.3	66.5	51.8	--	--	53.9	52.8	76.4	75.0
Enrolled in CHIP (%)[d]	0.2	0.2	0.1	0.1	3.0	3.3	2.0	2.8	21.4	21.8	N/A	N/A	--	--
Female (%)	50.1	49.9	49.4	49.2	49.5	49.3	54.4	53.7	49.2	49.2	53.0	51.4	48.8	49.0
Total quarters in analysis[e]	19.3	19.7	18.6	17.6	20.0	19.0	18.2	18.4	20.4	19.7	15.3	16.3	20.3	20.2

Key: Attr=InCK Model attributed population; CT=Connecticut; Comp=InCK Model comparison group; IL=Illinois; InCK=Integrated Care for Kids; N/A=Not Applicable; NC=North Carolina; NJ=New Jersey; NY=New York; OH=Ohio; --=missing; Mos=month; MCO=Managed Care Organization; CHIP=Children's Health Insurance Program; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. This exhibit shows average demographic characteristics among our analytic sample for the InCK and comparison populations during 2023. b. The number of unique individuals represents the total number of individuals enrolled in Medicaid (and CHIP in Connecticut, Illinois, New Jersey, and North Carolina) for at least one month during 2023. The evaluation applies a methodology to assign a unique study identification number "Study ID" to enrollees included in Award recipient-submitted Retrospective Attribution Files to accurately identify unique individuals over time and across data sources. This explains why the count of total attributed individuals differs from attributed populations shown elsewhere in this report. These values also differ from the counts used for power simulations in Appendix A, which focused on the average number of beneficiaries attributed to InCK in our analytic data from 2018-2023. c. NJ InCK language data are missing. d. OH InCK CHIP enrollment data are missing. e. Total quarters in analysis represents the number of quarters an individual is observed in the data through the model baseline (2018-2019), pre-implementation (2020-2021), and implementation (2022-2023) periods.

Sources: 1. Interim T-MSIS Analytic Files, 2023. 2. Award recipient-submitted 2023 Retrospective Attribution Files. Award recipient-submitted 2023 Retrospective Comparison Group Files.

Exhibit D.14. Award recipients are testing their local InCK Model in populations with meaningfully different underlying health conditions and diagnoses (2023 characteristics).

	IL-All Hands InCK		IL-Village InCK		NC InCK		CT InCK		NJ InCK		NY InCK		OH InCK	
	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp	Attr	Comp
ADHD and other conduct disorders	3.4	3.1	9.7	10.6	7.5	9.0	6.0	5.0	5.5	6.0	4.2	3.2	11.2	13.0
Anemia	5.0	4.5	1.7	1.8	2.6	2.4	6.4	4.9	2.9	4.7	6.0	6.6	1.4	1.7
Anxiety Disorders	6.9	6.2	10.0	11.5	8.6	7.6	9.1	6.9	6.0	5.7	5.2	4.1	10.9	15.5
Asthma	7.1	6.1	4.0	4.6	7.3	7.1	11.5	9.7	6.6	8.7	10.7	7.0	5.0	5.9
Autism	2.1	2.1	1.6	2.3	2.4	2.4	2.3	2.1	2.8	3.2	4.0	2.6	2.7	2.9
Bipolar Disorder	1.2	1.2	2.8	3.3	1.2	1.5	2.0	1.6	1.1	1.4	1.1	0.5	3.0	2.9
Depression, Ever	5.5	5.3	8.2	8.7	5.2	5.5	8.5	6.8	4.8	5.2	4.8	3.3	8.4	10.5
Major Depressive Disorders	4.4	4.2	6.2	7.8	4.1	4.3	6.6	4.5	3.0	3.7	3.8	2.7	6.8	8.4
Drug Use Disorders	1.1	1.1	2.1	1.6	1.1	1.2	2.7	1.6	0.9	1.3	1.0	0.8	2.0	2.3
Learning Disabilities	10.8	9.4	9.5	9.2	8.6	8.6	4.6	4.7	5.5	6.2	10.3	8.0	11.0	10.1
Migraine and Other Chronic Headache	1.0	0.9	1.7	1.6	1.2	1.4	2.2	1.9	0.8	1.3	1.7	1.0	1.9	2.2
Obesity	6.0	8.4	1.9	2.0	3.2	3.3	6.0	6.7	2.8	4.6	7.4	5.2	3.5	2.2
Other Developmental Delays	8.9	7.9	5.8	4.9	2.9	2.6	1.5	1.2	2.6	3.0	4.7	3.7	4.5	4.1
Pneumonia	1.4	1.1	1.4	1.8	1.2	1.4	1.4	1.6	1.8	1.8	1.4	2.0	2.1	1.9
Post-Traumatic Stress Disorder	0.6	0.7	1.5	1.6	1.6	1.5	3.6	1.9	0.8	1.0	1.2	0.8	2.5	3.4
Count of non-prevalent CCs[b]	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2

Key: CT=Connecticut; InCK=Integrated Care for Kids; IL=Illinois; NC=North Carolina; NJ=New Jersey; NY=New York; OH=Ohio; Attr=InCK Model attributed population; Comp=InCK Model comparison group; ADHD=Attention-Deficit/Hyperactivity Disorder; CC=Chronic Conditions; T-MSIS=Transformed Medicaid Statistical Information System.

Notes: a. This exhibit shows average prevalence (percentage of beneficiaries observed with the condition) of the 15 most common chronic conditions among our analytic sample for the InCK and comparison populations during 2023. Each condition is identified based on the presence of a diagnosis for the condition found in Medicaid claims/encounter data during the two years preceding when they are observed. b. Non-prevalent refers to a set of 53 additional chronic conditions.

Sources: 1. Interim T-MSIS Analytic Files, 2022-2023. 2. Award recipient-submitted 2023 Retrospective Attribution Files. Award recipient-submitted 2023 Retrospective Comparison Files.

Appendix E: Measure Specifications

We used demographic, enrollment, claims, and managed care encounter data from the Interim Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) for calendar years 2017–2023 to calculate rates of health care utilization per 1,000 Medicaid or Children's Health Insurance Program (CHIP) beneficiary months. We created an analytic dataset to determine Medicaid and CHIP enrollment, identify beneficiary characteristics, and calculate health care utilization measures at both the beneficiary level and monthly level. Our analyses included two measures of health care utilization and one measure of total cost of care, for all attributed and comparison beneficiaries, specified as follows.

Number of outpatient emergency department (ED) visits. Outpatient ED visits are ED visits that did not result in the patient being admitted to a hospital for acute care; that is, the patient was discharged to the community or another type of medical setting. Visits that do not lead to a hospitalization are identified from outpatient hospital claims using revenue center line items equal to 045X or 0981 (emergency room care), CPT codes 99281–99285, or both a place of service code equal to 23 (emergency room – hospital) and at least one line-item procedure code from the Healthcare Effectiveness Data and Information Set (HEDIS) ED Procedure Code Value Set. Multiple claims for ED visits on the same day are counted as a single ED visit. ED visits identified from an outpatient claim with a date of service within one day or during an inpatient stay are excluded. Inpatient stays are identified as inpatient claims (HOSP_TYPE_CD 01, 03, 05, 06, or 07) with BILL_TYPE_CD 011X, 012X, or 085X and at least one claim line where REV_CNTR_CD = 010X–017X or 020X–021X, but not equal to 0118, 0128, 0138, 0148, or 0158.

Well-child visits. This measure is based on the "Well-Child Visits in the First 30 Months of Life" and "Child and Adolescent Well-Care Visits" measures from the "Child Core Set," which capture well-child visits for beneficiaries aged 0-20. These are described in *Core Set of Children's Health Care Quality Measures for Medicaid and CHIP: Technical Specifications and Resource Manual for Federal Fiscal Year 2021 Reporting*.[45] Both types of well-child visits are identified using claims for other services with:

1. Line-item CPT codes equal to 99381–99385, 99391–99395, or 99461 or Healthcare Common Procedure Coding System codes equal to G0438–G0439; and

2. Either a primary or secondary diagnosis code from the following list: Z0000, Z0001, Z00110, Z00111, Z00121, Z00129, Z005, Z008, Z020, Z021, Z022, Z023, Z024, Z025, Z026, Z0271, Z0282, Z761, or Z762.

We did not exclude visits billed with a telehealth modifier code or place of service code given the increased use of telehealth services during the COVID-19 public health emergency. Due to concerns about missing data for provider specialty, we did not impose the condition that either the billing or service provider's specialty or taxonomy code corresponds to a PCP (Physician/Family Practice, Physician/Internal Medicine, Physician/Pediatric Medicine, Physician/Geriatric Medicine, Certified Nurse Midwife, Nurse Practitioner, Certified Clinical Nurse Specialist, or Physician's Assistant), an OB/GYN, a Federally Qualified Health Center, or a Rural Health Clinic, in order to qualify as a wellness visit.

Total cost of care. This measure was derived from the MDCD_PD_AMT field in the Interim TAF Inpatient (IP), Long Term (LT), Other Services (OS), and Pharmacy (RX) files, reflecting reported *payments* from state Medicaid agencies or Managed Care Organizations to providers. Costs include final action claim and encounter records for Medicaid and CHIP and exclude capitation payments, supplemental payments, and other lump sum payments not attributable to a single beneficiary (for example, drug rebates).

45 Center for Medicare & Medicaid Services, Center for Medicaid and CHIP Services. (March 2021). *Core Set of Children's Health Care Quality Measures for Medicaid and CHIP: Technical Specifications and Resource Manual for Federal Fiscal Year 2021 Reporting*. https://medicaidquality.nh.gov/sites/default/files/user-uploads/11/Child-core-set-manual%20March%202021.pdf.

Appendix F: Quantitative Methods for Impact Estimates

For the impact estimates presented in this report, we used a difference-in-differences (DID) approach to estimate population-level effects. The DID framework estimates the impact of an intervention by comparing how outcomes change from the pre-implementation (i.e., baseline) period to the implementation period for the attributed population relative to the comparison population.

The key identifying assumption for DID is that the comparison population is a good counterfactual for the attributed population in the absence of the model. Specifically, the average change in the outcome between the baseline and implementation period in the comparison population is the same as the change that would have occurred in the attributed population in the absence of the InCK Model.

Our process for selecting comparison regions included a review of quantitative and qualitative factors that could affect validity. We took three steps to support a causal interpretation of our impact estimates:

1. First, we used a comparison group weighting approach called entropy balancing (EB) to improve the comparability of the attributed and comparison populations for each analysis. We provide more details about EB weighting below.

2. We used multiple regression to estimate the DID, controlling for a rich set of beneficiary- and market-level factors. Combined, (1) and (2) help strengthen the parallel trends assumption by accounting for potential changes in outcome trends that are attributable to changes in underlying factors external to InCK (e.g., changes in beneficiary characteristics mix).

3. We assessed whether outcomes between attributed and comparison beneficiaries exhibited "parallel trends" during the baseline period after weighting and regression-adjustment. The parallel trends assumption is commonly invoked as a necessary condition for validity. Although it cannot be tested directly, we employed the common practice of examining evidence that outcome trends in the baseline period followed parallel paths between the attributed and comparison groups. The assumption behind this practice is that finding evidence of parallel trends in the baseline period increases the likelihood that parallel trends would occur during the implementation period if the intervention never occurred. In particular, (1) we visually inspected graphical depictions of regression-adjusted outcome trends from both groups, (2) we conducted placebo tests by using a late baseline period (such as 2021) as a pseudo-intervention period and examining if there is a significant difference-in-differences estimate for the attributed group, and (3) we tested for equality of the differences between the attributed and comparison group outcomes across all baseline quarters. If both (2) and (3) failed ($p < 0.05$) then we considered the outcome to be not supported for causal interpretation.

To strengthen the parallel trends assumption, we excluded the first quarter of 2020 from the baseline in our impact regressions to mitigate the disruptive effect of the COVID-19 PHE. For North Carolina, we further limited the baseline to the last six months of 2021 since NC Medicaid transitioned from primarily fee-for-service to primarily managed care in July 2021, effectively creating new outcome trends.

Entropy Balancing Weights

We used multiple strategies to construct the comparison group. For example, we used propensity score matching and Mahalanobis distance scores to identify comparison regions that were similar to InCK attributed regions. The comparison group captured beneficiaries who reside in these select comparison regions. For the population-level DID analyses presented in this report, we additionally used a covariate

balancing technique called EB to ensure beneficiary- and market-level characteristics were aligned between the attributed and comparison populations.

EB weighting is a strong design choice for settings like the InCK Model evaluation, where the evaluation strives to match the comparison group to a population with known characteristics. The EB weighting approach allowed us to specify a set of distributional characteristics of covariates (that is, mean age, variance in age, proportion female) and construct weights that force balance in those characteristics between two groups of data.

Propensity score matching and inverse probability weighting (IPW) are two alternative approaches to achieving comparison group balance. Propensity score matching and IPW both require the researcher to specify a model that describes how observations are selected into the treatment (attributed) population as a function of observable characteristics. The results of both matching and IPW are sensitive to the specification of the propensity score model, and the performance of matching or IPW for balancing characteristics between attributed and comparison beneficiaries cannot be assessed prior to model specification. Thus, balance in characteristics must be assessed after each iteration.

By using EB weighting, we eliminated the need to iteratively search for the best propensity score model to balance covariate means, and we removed the chance for the model selection process to introduce bias into the comparison group. For subgroup analyses, we efficiently re-estimated EB weights that reflect the distribution of characteristics for the subpopulation of interest.

In the DID analysis, there are four relevant types of observations:

- **Baseline attributed** – beneficiaries who meet the inclusion criteria for InCK Model Attributed Beneficiaries during the evaluation's baseline period, prior to implementation of the InCK Model.
- **Baseline comparison** – beneficiaries who would meet the inclusion criteria during the evaluation's baseline period, except that they reside in the comparison region.
- **Implementation attributed** – beneficiaries who meet the inclusion criteria for InCK Model Attributed Beneficiaries during the model's implementation period.
- **Implementation comparison** – beneficiaries who would meet the inclusion criteria during the model's implementation period, except that they reside in the comparison region.

We used the EB approach to estimate weights so that the baseline attributed, baseline comparison, and implementation comparison groups resembled the implementation attributed observations. We confirmed that the weighted implementation period comparison group and baseline attributed and comparison groups were balanced with the implementation period attributed group based on conventional diagnostic criteria such as standardized mean differences and graphs showing that the distributions of variables are similar for the two groups in both time periods.

We balanced on observable factors among residents of the attributed and comparison regions that were plausibly associated with the outcomes of interest or that were predictive of being in the InCK attributed population. These factors varied by award recipient but included demographics, chronic conditions observed in claims during the prior two years enrollment in a comprehensive Managed Care Organization (MCO) plan, and upstream drivers of health. Exhibit F.1 lists the beneficiary-level characteristics that we used as covariates in the development of EB weights.

Exhibit F.1. Our entropy-balance weights controlled for key beneficiary-level characteristics.

Characteristics
Age groups (≤15 months, 16 – 30 months, 31 months to 6 years, 7 – 11 years, 12 – 20 years, ≥21 years), sex, race and ethnicity, English as primary language, total quarters in the analytic data, enrolled in CHIP, number of months observed in quarter, pregnant, chronic conditions observed in the past two years (ADHD and other conduct disorders, anxiety and/or depression disorders, asthma, bipolar disorder, learning disabilities, obesity, other developmental delays), indicator for any comprehensive MCO.

Key: CHIP=Children's Health Insurance Program; ADHD=Attention-Deficit/Hyperactivity Disorder; MCO=Managed Care Organization.

Two variables used in our EB weights, the primary language variable and the race and ethnicity variable, are frequently missing for a given beneficiary-month. Under the assumption that these measures are not likely to change over time, we used data from all available time periods to populate missing values when present (e.g., if a beneficiary has missing data in 2018 but not 2019, we use the 2019 values for both periods). However, the fewer time periods that we observe a beneficiary, the less opportunity we have to identify non-missing values. This means that after populating missing values in this way, (i) missingness remains much higher in the implementation period than the baseline, and (ii) missingness remains higher for the oldest and the youngest beneficiaries. This is because the oldest beneficiaries age out of the sample after relatively few quarters, and the youngest beneficiaries born during the observation period can be observed only over their relatively short observed lifespan. For similar reasons, the variable "total quarters in the analytic data" decreases substantially from baseline to implementation and is highly correlated with age. In addition, CHIP enrollment fell substantially in the implementation period for unexplained reasons, which could reflect either a true underlying policy shift or an artificial reporting/measurement change.

In each of these cases, measures for the implementation period potentially capture different underlying information than measures for the baseline period. For this reason, using EB weights incorporating these variables to reweight the baseline period to balance against the implementation period risks may not be appropriate, because the relationship of these variables with outcomes may also shift across baseline and implementation periods. For example, suppose that the total quarters measure is positively correlated with well-child visits. Because the total quarters measure is artificially higher during the baseline period for the reasons described above, reweighting baseline to the implementation period would artificially reduce the contribution of beneficiaries with higher total quarters observed within the baseline sample. This would in turn artificially reduce baseline well-child visits relative to the implementation period. This will not necessarily introduce bias into the impact estimates since both InCK and comparison groups are affected by this issue. However, estimated changes from baseline to implementation period will likely be biased. This means estimates would not provide an accurate assessment of whether well-child visits were increasing or decreasing over time in the absence of InCK: a key piece of contextual information.

To avoid this issue, while still mitigating the risk of biased impacts due to differences in these variables between InCK and comparison groups, we weighted the InCK and comparison groups to be balanced on these factors within the baseline period, and separately within the implementation period. However, we did not balance on these variables from the implementation to the baseline period. We also excluded these variables from our regression analysis.

For sensitivity analyses, we included these variables in our regression analyses, and also revised the weights to balance these factors over time. Impact estimates reported in the body of the report are robust to these changes.

Outside of these exceptions, we included the variables used to construct the EB weights in our regression specifications (alongside additional covariates) so that our impact estimates are considered "double-robust" to observable confounders, as only the weights or regressions need to be correctly specified to ensure that observable confounders are not biasing the impact estimates. These strategies helped provide confidence that our impact estimates are unbiased with respect to observed characteristics.

Population-Level DID Model Estimation

The regression models that implement the population-level DID provide an estimate of how the InCK Model affected outcomes at the population level. We estimated the impact of the InCK Model separately for each award recipient, using the DID framework represented by Equation 1 below.

Equation 1 specifies the regression model we used to estimate the DID study:

$$Y_{ijt} = \alpha InCK_{ijt} + \gamma T_t + \delta InCK_{ijt} * T_t + \beta X_{ijt} + \varepsilon_{ijt} \quad (1)$$

Where:

Y_{ijt} represents the outcome for beneficiary i in ZIP/county j at quarter t.

T_t is a set of quarterly indicators that adjust for changes in the outcome and covariates that are common across all Medicaid and CHIP beneficiaries in the attributed and comparison regions of the given award recipient during quarter t (often called "common shocks" or "secular trends").

$InCK_{ijt}$ represents a binary treatment variable equal to 1 if i is in the attributed group and t is a quarter during the implementation period (Quarter 1 of 2022 or later); otherwise, $InCK_{ijt}$ is 0.

X_{ijt} is a vector of time-varying control variables characterizing individual i or ZIP/county j during quarter t.

ε_{ijt} is the error term.

We estimated Equation 1 using generalized linear models, which allows flexible specification of distributions of the outcome variable and link functions that best match the empirical distribution of the data. We estimated the regression models using person-quarter-level data.

Our primary specifications clustered standard errors at the individual level. Clustering standard errors at the individual level addresses serial correlation of outcomes within the same individual and provides more clusters than if we were to cluster at the zip-code level. The latter could have resulted in too narrow confidence intervals because the number of zip codes was too few (ranging from 4-17 clusters) for basic clustering approaches to produce unbiased error estimates.

Exhibit F.2 lists the beneficiary-level and county-level characteristics that we used as covariates in the regression adjustment of the DID analyses.

Exhibit F.2. We controlled for key beneficiary and county-level characteristics in our regressions.

Level of Characteristics	Characteristics
Beneficiary	Age groups (≤15 months, 16 – 30 months, 31 months to 6 years, 7 – 11 years, 12 – 20 years, ≥21 years), sex, number of months observed in quarter, pregnant, chronic conditions observed in the past two years (ADHD and other conduct disorders, anemia, anxiety disorders, asthma, autism, bipolar disorder, depression [ever], major depressive disorders, drug use disorders, learning disabilities, migraine and other chronic headache, obesity, other developmental delays, pneumonia, post-traumatic stress disorder), count of other non-prevalent chronic conditions, comprehensive MCO indicators.
County	Rural/urban, Health Professional Shortage Area – primary care/mental health, child poverty rate, PCPs per capita, COVID-19 cases per capita per quarter (2020–2023), COVID-19 deaths per capita per quarter (2020–2023).[a]

Key: ADHD=Attention-Deficit/Hyperactivity Disorder; MCO=Managed Care Organization; PCP=Primary Care Provider.

Notes: a. For Village InCK and All Hands InCK we included a single linear term for COVID-19 variables in the regressions. For NC InCK, we included quarterly interaction terms for the COVID-19 variables. In the absence of the interaction terms, baseline misalignment between the attributed and comparison regions violated the parallel trends assumption. The interaction terms mitigated this misalignment.